

NAKO

RESEARCH AND CONSERVATION IN THE WESTERN HIMALAYAS

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Research and Conservation in the Western Himalayas



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Preface

Gabriela Krist

“...at the ends of the earth with nothing beyond...”

Beginning my introduction to our Nako-book, which has been in preparation for a long time, with Francke's famous quotation (1914:32) indicates how much I felt like him, the great researcher and world traveller, when I approached Nako for the first time in May 2005. When we arrived after our long journey from New Delhi in jeeps from Rampur, the drivers wished to smoke a last cigarette on this very final and hazardous leg, about 40 km from the Sutlej River Valley on the National Highway 22, always climbing up and up in never-ending curves—I called it “the long and winding road...” after the famous Beatles song. We were standing on a stone block in the middle of nowhere with the most incredible view to the Himalayan mountains and it was breathtaking. Never before and never since have I had this feeling of being so far away from home, in a completely different world, not mine but very close to my heart—a child's dream came true. A heavy snowstorm was our welcome at Nako, cold rooms, frozen water at the newly opened Reo Purgil Hotel, the top address in the village, and a nearly 10-year-long adventure began.

What awaited us the following day, when we first entered the Nako Gompa, was even better. The four temples around the courtyard offered an unspectacular view from the outside, but what could we see in the dark interiors? Fine, delicate wall paintings together with clay sculptures and colourful polychrome wooden ceilings formed the most beautiful cultural ensemble ever seen. We knew that it would be hard, but a privilege to work here.

Since then, that first exposure to a new culture and region, much has changed. We came every summer from 2004–2010, and Nako had a strong and sustainable impact on all of us, not only professionally but also personally. We gained our own experiences, met friends, learnt about the hard mountainous life and got involved in the most stimulating, most difficult and challenging conservation project ever.

Ernst Bacher, the Conservator General of the Austrian Bundesdenkmalamt, brought us to Nako. He was the chairman of the “Nako Research and Preservation Project”, which started in 2002 and was directed by Deborah Klimburg-Salter. Bacher had the difficult task of establishing a conservation masterplan for the Buddhist temple complex at Nako, the team around Klimburg-Salter was responsible for art-historical research, Romi Khosla, the chief architect, involved for architectural conservation and we—the Institute of Conservation of the University of Applied Arts Vienna—received the opportunity and challenge to undertake the preservation and conservation of the temple interiors.

The Austrian Science Fund (FWF) granted our project “Scientific Study of the Artwork at Nako 2007–2011” (L335-N19) which enabled us to carry out first conservation research, laying the foundation for the subsequent conservation work. In the framework of two dissertations, three diploma theses and four undergraduate theses, important aspects of the building and artistic materials and techniques used at Nako were studied and appropriate conservation methods developed.

Additional support for the project was given by the Austrian Development Agency (ADA), the Eurasia-Pacific Uninet (EPU), the University of Applied Arts Vienna and the Cultural Forum

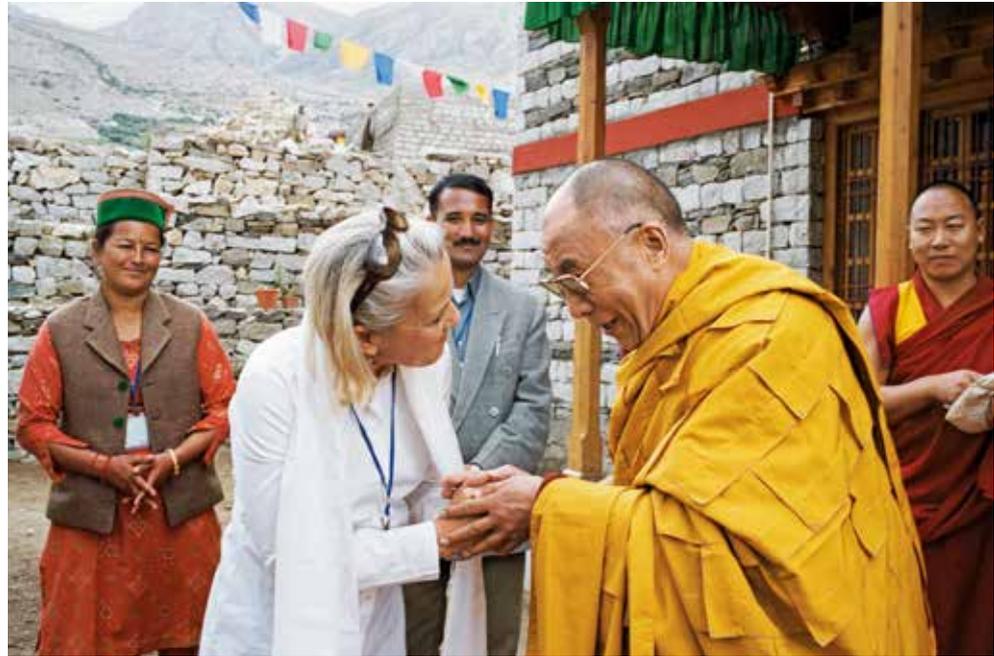


Fig. 2: Meeting with H.H. the Dalai Lama during his visit of Nako in 2007.

of the Austrian Embassy in New Delhi. The National Research Laboratory for Conservation of Cultural Property in Lucknow and later the National Museum Institute (NMI), Conservation Department, New Delhi, in the capacity of V.M. Nair, and the various Committees at Nako, e.g. The Buddhist Society, the Nako Youth Club, were the helpful and supporting local partners.

His Holiness, the 14th Dalai Lama Tenzin Gyatso came to Nako in summer 2007 to deliver his teachings on the “Thirty-seven Practices of a Bodhisattva” to 8000 pilgrims of the Hangrang Valley. The Nako Gompa was re-consecrated by him, the museum opened. This gave us the chance to speak with him and to introduce the guests to the conservation projects completed thus far.

What has been achieved from 2004 to 2010? The Translator’s and the Upper Temple were conserved, the two smaller temples documented and secured as much as possible. Wall paintings, clay sculptures and painted wooden ceilings were treated. After unsuccessful trials and tests with modern concepts our conservation philosophy favoured local traditional materials—learnt and experienced in Nako—and minimal intervention. This was a different approach than in other sites of the region, where reconstruction measures and overpainting dominate the conservation results.

With the help of the locals, a museum could be established, furthermore a workshop on building maintenance and a training course for monks for the handling and storage of thangka was arranged. The thangka collection of the village was surveyed, documented, secured and properly stored, some objects underwent exemplary restoration at our workshops in Vienna. In addition two documentary films by Austrian Broadcasting (ORF) film maker Gundi Lamprecht were completed. A Nako-photo exhibition at the National Museum in New Delhi and four similar events in Vienna contributed to the public awareness of Nako’s most beautiful but fragile natural and cultural landscape.

2009 marked 60 years of Indo-Austrian diplomatic relations and our Institute was asked by the Cultural Forum of the Austrian Embassy New Delhi to organize an international conference entitled “Cultural Heritage Counts - Heritage Conservation and Management” at the

National Museum in New Delhi. For the event we identified and invited a range of Austrian and Indian experts in the fields of Buddhist studies, Tibetology, art history, architecture, conservation and natural sciences to present their research and projects in India and especially in the Western Himalayas. The conference post-prints give an insight to the various research fields and the results of the collaboration established can be seen in the various contributions to the publication on Nako which we celebrate herewith.

The book does not pretend to be complete and to illustrate all aspects of the complex Nako village and site. Moreover, due to the interdisciplinary nature of the authors, several aspects are highlighted, others only touched. Sometimes there are different opinions, e.g. in dating or contributions to different styles and schools, but I believe that this will encourage and stimulate future research and in-depth studies. The conservation work done by our team is surely put in focus, as research and practical conservation work at Nako kept us busy for nearly one decade.

For the publication, my special thanks go to Christian Luczanits, who assumed the difficult task of writing the art-historical introduction to the Nako Gompa and who somehow helped to coordinate art-historical research for the publication. Furthermore, I wish to thank Andrea Loseries for her critical remarks and editing help. I am very grateful to my co-editor Martina Haselberger who closely worked with me in the last months on the publication; she handled the correspondence with all authors and brought this project forward in an extraordinary way. Further thanks go to my longtime colleague and friend Marie Gruber, who not only helped on the publication as much as she could but who co-coordinated the Nako project in all these years. Marie did an amazing job!

For professional help and the hard work in Nako I wish to thank my team, first of all my staff—Tanja Bayerová, Marija Milchin, Kathrin Schmidt and Manfred Trummer—and furthermore my former colleagues at the Institute. Without the commitment, full involvement and professional expertise of each individual, the project would have been not possible.

Sincere thanks go also to a long list of our former students who worked with us on the site. I am very grateful to our colleague Stefan Olah for his great photographs which have already made and will continue to make Nako present in the world.

Furthermore I would like to thank Helmut Neumayer for his updated maps of the Nako Gompa and his advice on architectural conservation, Andreas Kolbitsch and his colleagues from the Technical University Vienna for static measurements and important counsel on static consolidation.

Deborah Klimburg-Salter merits my sincere thanks for arranging our first mission to Nako in 2004, and her team from the University of Vienna for the fruitful interdisciplinary cooperation in all the years and for their contributions to the book.

Florian Flicker, who accompanied us to Nako and who wrote his wonderful text about the Dalai Lama's visit in 2007 died unexpectedly and much too soon in August 2014. We have incorporated his essay in our publication as a visible sign that we will never forget him.

At last, my thoughts go to Ernst Bacher, who initiated the project and who left us too early. I speak for my whole team in saying that we are grateful for his always wise and knowledgeable advice and for his kindness as teacher and friend. Our work at Nako is dedicated to him.

Preface

Deborah E. Klimburg-Salter

It is a great pleasure for me to be able to write this foreword and to acknowledge the important contributions of many people since this project first began in 1989, 26 years ago. To begin with, I must thank Prof. Gabriela Krist for this final publication of the NRPP (Nako Research and Preservation Project). This initiative is a logical outcome of Prof. Krist's central role in planning, fund raising, and implementing the last conservation phase of the NRPP, the conservation of the paintings of the temples of the *chos 'khor* or Sacred Compound. One cannot overestimate the difficulty of raising funds for the labor intensive work of painting conservation in a far off and little known village in the Himalayas.

It is impossible here to review the entire history of the NRPP and I refer the reader to the website of the Nako Research and Preservation Project¹ which gives a chronology of the work up to 2007. Also on the website are a great number of reports, photo albums, and details of conservation and preservation reports, team profiles, a mission statement and so forth. The conservation team under the direction of Prof. Krist, first began its work in 2004 and after 2006 largely continued independently. The art historical research continued on the basis of individual research topics in art history (see below). A session dedicated to the transdisciplinary research—art history and monument conservation at Nako—was the subject of a workshop held in The Indian Institute of Advanced Studies in Shimla in 2009 (Klimburg-Salter 2016: 9-14). We were privileged to have as participants the ven. Lochen Tulku Rinpoche (Rinchen zang po) and Deepak Sanan, both of whom have given us invaluable support and advice over these many years.

The structural, and to some degree theoretical problem from the beginning was to integrate two totally different types of research agenda: The FWF sponsored research which aimed at collecting primary documentation for a transdisciplinary cultural history of the region; and the goals of the newly conceived NRPP that were conservation research and the conservation of the sacred compound consisting of four ancient temples (founded c. 11th /12th century). Above all, it was necessary to integrate these projects into our work at the University of Vienna: research, teaching and on the job training of students and young scholars (post-doctoral students). For this reason, our natural partners were other universities—initially the well-known Wall Paintings Conservation Department at the Courtauld Institute of Art and then the University of Applied Arts. The fact that the Institute of Conservation of the latter was on the same academic schedule as the University of Vienna proved to be a critical component in coordinating art historical and conservation research and training at the site.

Most fortunately, the WMF Robert W. Wilson Challenge Grant was compatible with both these goals.² I wish here to acknowledge with thanks the generous funding and assistance

1 Nako Research and Preservation Project. Available at: <<http://athene.geo.univie.ac.at/project/nako/index.php?id=1>>

2 The grant is based on a "matching grant" concept—in my case the matching funds came from a FWF grant (FWF-FSP Project: "The Cultural History of the Western Himalaya from the 10th to the 14th century, S 8701-ARS) directed by the present author and some small proportion from the University of Vienna overhead. I am grateful to the Austrian Science Funds (FWF) that generously financed through successive grants doctoral and full-time post-doctoral positions (Christian Luczanits 1989-1994 as

from the WMF (World Monuments Fund). Bonnie Burnham, Director of the WMF, suggested the NRPP website as a means of networking and making available the conservation reports. Built and designed in 2007 by Michael Falser the website has proven to be a useful resource for the field of high altitude, mud brick monument conservation³.

I first visited Nako very briefly in 1989 together with my colleague Helmut Tauscher, thanks to a FWF research grant (Klimburg-Salter 1990).⁴ Soon after began our close friendship with the two families who have continued to work with us in Kinnaur, the late O.P. Negi and Shamshir Dewa Negi from Poo and Hokum Chand and his family from Nako.

Research on the Western Himalayas was generously funded by the Austrian Science Funds, however it proved quite difficult for the art historians to obtain long term funding for the conservation work at Nako. The first application was a nomination in 2000 in order to list Nako among the 100 Most Endangered Sites.⁵ This application was successful and resulted in a listing in 2002. In 2004 a very substantial Robert W. Wilson Challenge to Conserve Our Heritage could be obtained⁶, which essentially funded the work of the art history and the architecture teams and the first seasons of the Courtauld conservation teams⁷.

Conservation research was of particular importance for an understanding of the art history of the site beginning with the Courtauld programme under the direction of David Park, with Stephan Rickerby, Lisa Shekede and Sharon Cather. An important result of the programme was Stephanie Bogin's master thesis "A technical study of early Buddhist wall paintings at Nako, Himachal Pradesh, India".

The art historians became involved in the conservation of the Nako temples because of a commitment to heritage preservation. However, we were also motivated by the need to understand more about the techniques used in the architecture, painting, and sculpture. A short summary of one problem in the chronology of the site serves to illustrate the importance of conservation research for a history of the sacred art and architecture.

Despite several trips to Nako (1989, 1993, 1994, 1996), it was only possible to propose a relative chronology for two temples in Nako on the basis of a comparative stylistic analysis

undergraduate student, 1994–1998 as doctoral student, and 1998–2000 as post doc). Students who visited Nako under FWF grants: doctorate students Verena Widorn (2002, 2003, 2004), Christiane Papa-Kalantari (2002, 2004); undergraduate students Verena Ziegler (2002, 2004), Petra Müller (2004, 2005), Karin Weissenborn (2004), Susanne Kogler (2004), Kerstin Rathje (2004), Uwe Niebuhr (2006); plus all the travel for the participants, including the present author (1989, 1998, 1999, 2002, 2003, 2004, 2006), in order to research, photograph the monuments, and present the results at international symposia.

- 3 Falser had worked at Nako with architect John Harrison and the present author preparing preliminary studies for the following year's campaign (1999)—see chronology on the website. Falser's primary resources were the extensive archive of all materials funding applications, correspondence, reports etc. housed in the Art History Department, University of Vienna, to construct his chronology etc. The clip featured on WMF website is derived from the material used also for this website.
- 4 My 1990 article retraced the journey of G. Tucci and E. Ghersi in 1933 and attempted to describe the extensive changes in the cultural topography, particularly in the ancient monuments.
- 5 According to the structure of the application the nominator was Christian Luczanits, the sponsor the present author, and the supporting specialist was Prof. Ernst Bacher, art historian and Conservator General of the Bundesdenkmalamt at that time.
- 6 I wish here to acknowledge with thanks not only the generous funding but the many helpful discussions that the present author was privileged to have with Bonnie Burnham, Director of the WMF, and Alex Reinburg, who coordinated the Wilson Challenge Grant at that time.
- 7 I thank David Park and all of the conservation team from the Courtauld for the very valuable collaboration. Unfortunately, our two academic institutions were on totally different academic calendars so that joint field campaigns and the integration of our programmes were quite difficult.

of the wall paintings in the chapter reviewing the Buddhist art of Spiti and Kinnaur up to the 15th century (Klimburg-Salter 1997: 202–227). Subsequently a study of the painting of an enthroned prince associated with a much damaged historical inscription in the Translator's Temple provided further evidence for a hypothesis dating the paintings in the temple to the late 11th /early 12th century (Klimburg-Salter 2001). The lack of any fixed points for an absolute chronology made an internal chronology of the four temples of the Sacred Compound particularly difficult. In 2003 I attempted to sketch a proposed chronology for the temples, noting the difficulty posed by conflicting information. At that time I expressed the hope that the newly commenced conservation studies would assist us in understanding the relative date of the so-called "Upper Temple", the Lhakhang Gongma (Klimburg-Salter 2003: 43-45).

Usually the largest temple of a village or monastery is called the *gTsug lag khang*. It is used as an assembly hall. The largest temple in Nako is the Translator's Temple, today also called the *gTsug lag khang*. However, in 1933 when Tucci visited the site (Tucci 1935) the *gTsug lag khang* was the name used for the smaller temple opposite the Translator's Temple. This was also the name of the temple when I first visited Nako in 1989 (Klimburg-Salter 2003). An alternative name for this temple, which now takes precedence, is Lhakhang Gongma meaning the upper temple, but could also mean the ancient temple. The first temple to be built at a site is usually situated at the highest reasonable point; this is seen as the more auspicious placement. This position is occupied by the Upper Temple. A possible scenario could be that the Upper Temple was built first, according to local legend in the period of missionary activity associated with the Great Translator and his patron, the king and royal lama Yeshe Ö. The small size of the temple would be consistent with such an early date. According to this scenario, the Translator's Temple was built later, probably in the 12th century, and the original designation of the oldest, but now smaller, temple was retained up to the most recent time, although the actual assembly hall would have become the larger Translator's Temple. The Upper Temple would have been partially renovated sometime after the Translator's Temple was decorated, thus causing some conflicting evidence with regard to the style of both the painting and the sculptures which has allowed for varying opinions regarding the relative date of the two temples (see Luczanits' contribution in this volume). Iconographic studies (Luczanits 2003, 2008 and contribution in this volume), while essential for understanding the importance of the temples for the development of Buddhism in Western Tibet, are less useful for questions of chronology.

Fortunately, however, conservation research (Bogin 2004) provided additional information which in my view permits the conclusion that the Upper Temple is the oldest temple of the sacred compound. To take one brief example, the paintings in the latter contain extensive use of silver paint and gold painted accents. Gold relief is found in a rather limited application in Tabo about 1042. In the Translator's Temple in Nako the technique is more developed and is used extensively, which also indicates a later date. This technique is not used in the Upper Temple. Also in the latter the drawing of the decorative forms is exceptionally fine, and similar elements such as architectural forms and the gates of the palace mandala are far more complex than their counterparts in the Translator's Temple.

Further indications of the great age of the building are the exceedingly thick walls and the tremendously thick roof, which are a result of successive repairs over perhaps as much as 900 years. This precarious situation contributed to the extensive damage following a severe storm which in turn motivated Hokum Chand to seek help for repairing the temple. In retrospect this can be seen as the beginning of the Nako Research and Preservation Project in 1998.

Two workshops in Delhi in 1996 and 1999 jointly sponsored by the Austrian Embassy in New Delhi and the Indian Archaeological Survey provided the first forums for the discussion of conservation problems at Nako. In May of 1998 an emergency roof repair campaign was conducted by a group of art historians from the University of Vienna, together with a team sponsored by INTACH (Indian National Trust for Art and Cultural Heritage) under the direction of Romi Khosla and Annuradha Chattervedi. From 1998 until 2007 the Khosla team combined conservation research and conservation aimed at stabilising the temple. Eventually, after long deliberation and active consultation with Prof. Bacher, and various specialists, including the testing of materials, such as the replacement bricks, and the evaluation of the statics, Khosla determined it was necessary to replace the roof. Happily these interventions have proved successful and kept the building from further damage, as well as serving to reintroduce traditional building technologies into the village and region.

A large number of art history studies could be produced thanks to the NRRP: two master theses by Verena Ziegler and Petra Müller, and a soon-to-be-completed PhD dissertation by Tasha Kimmet (University of Vienna), a doctoral thesis by Melissa Kerin from the University of Pennsylvania. In addition, there are of course the very many articles published by different members of the NRPP team, studies published by the Institute of Conservation which will be discussed by Prof. Krist, and the extremely detailed and excellent plans and reports prepared by Romi Khosla's team, many of which are on the website and all of which can be consulted in the very extensive archives of reports, correspondence and so forth that are part of the CIRDIS archive (Western Himalaya Archive Vienna, WHAV) at the University of Vienna Department of Art History.

In closing I should say that one of the most valuable aspects of this work was the collaboration that developed between the various disciplines, the art historians, architects, and conservation experts (Klimburg-Salter 2007a: 5–8). For this productive synergy we are above all indebted to Prof. Bacher, an art historian who was at that time a leading practitioner in the field of monument conservation, the conservation teams first from the Courtauld Institute and then from the Institute of Conservation of the University of Applied Arts in Vienna and the architecture conservation team under Romi Khosla. Once again I thank Prof. Krist for having so impressively continued this project, despite the really difficult working conditions and the continuing challenges of financing the work; and for having brought this project to a successful conclusion with this publication.





1 NAKO VILLAGE – AN INTRODUCTION



1.1. The Nako Monuments in Context

Christian Luczanits

It has long been recognised that the monuments of Nako village, in particular the four temples of the monastic complex at its western edge (see fig. 4) are part of to the most ancient Buddhist foundations preserved in the Western Himalayan region. The Nako temples were first visited and described by the renowned scholars A.H. Francke and Giuseppe Tucci in the first decades of the 20th century.¹ Following a period in which the entire region around Nako was largely inaccessible to foreigners, the gradual opening of the region from the 80s onwards resulted in new scholarly attention. Following Tucci's tracks, Deborah Klimburg-Salter brought the temples to our attention with her visit in 1989.² However, only on the basis of my subsequent efforts to document the oldest monuments as comprehensively as possible during two field trips in 1996 and 1998, could the art historical value of the monuments be fully appreciated.³ The new attention triggered through this documentation along with recent damage to the murals and sculptures of the monuments following a severe winter storm not only resulted in the nomination of the Nako monuments for listing among the 100 Most Endangered Sites 2002 by World Monuments Watch of the World Monuments Fund, but also in the conservation project celebrated with this publication.⁴

Originally, scholarly attention was largely focused on the oldest layers of art preserved in the village (see site plan in fig. 60). Most important are certainly those studies that focused on specific aspects of the temples' decoration, which not only helped to clarify the position of the Nako monuments among the Western Himalayan monuments, but also demonstrated the importance of what has been preserved at Nako for the understanding of the general development of Tibetan Buddhist art. Cited at the appropriate places throughout this survey, these studies have repeatedly shown that Nako preserves an important intermediate stage between the early monuments of the West Tibetan kingdom, such as Tabo, nearby in the lower Spiti Valley, and a later group of more Kashmir-related monuments only preserved in Ladakh and summarised as the Alchi group of monuments. These studies also were an important prerequisite for my own understanding of the oldest monuments as published in two survey studies a decade ago.⁵ With the exception of one more recent temple within the monastic complex studied in detail by Melissa Kerin (2008, 2010), the more recent artistic evidence of the village is still in need of survey studies, and specialised studies on different levels on their decoration are almost entirely lacking.

This contribution cannot make up for these lacunae but is an attempt to look at the Nako temples in a more comprehensive manner. Although many of the phases distinguished here are not more than hypothetical, it is hoped that this concise art history of the Nako temples

Fig. 4: Temple court of Lotsawa Lhakhang.

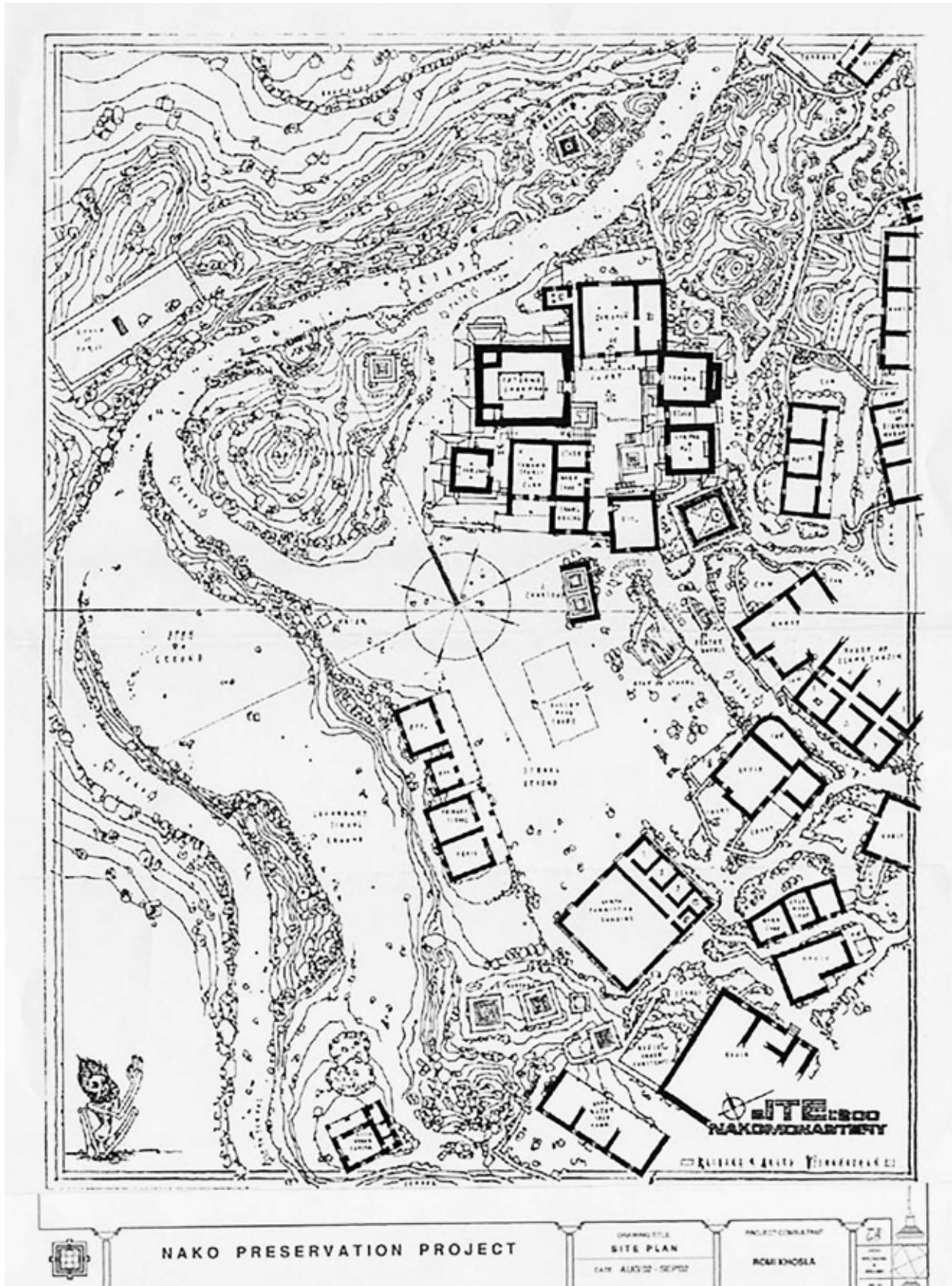
1 In particular Francke 1914: 32–34, pls. 12, 13 and Tucci 1935: 141–173, pls. 74–91.

2 See Klimburg-Salter 1990, which provides little information about the monuments itself. Following her, Thakur 1996 and di Mattia 1997 offer similarly rough overviews of the monuments.

3 At that time, I initiated the focus on Nako and also wrote the nomination of the Nako monuments with the World Monuments Funds.

4 See World Monuments Fund, available at: <www.wmf.org/project/nako-temples>.

5 Luczanits 2003b, 2004: 75–88, 119–123.



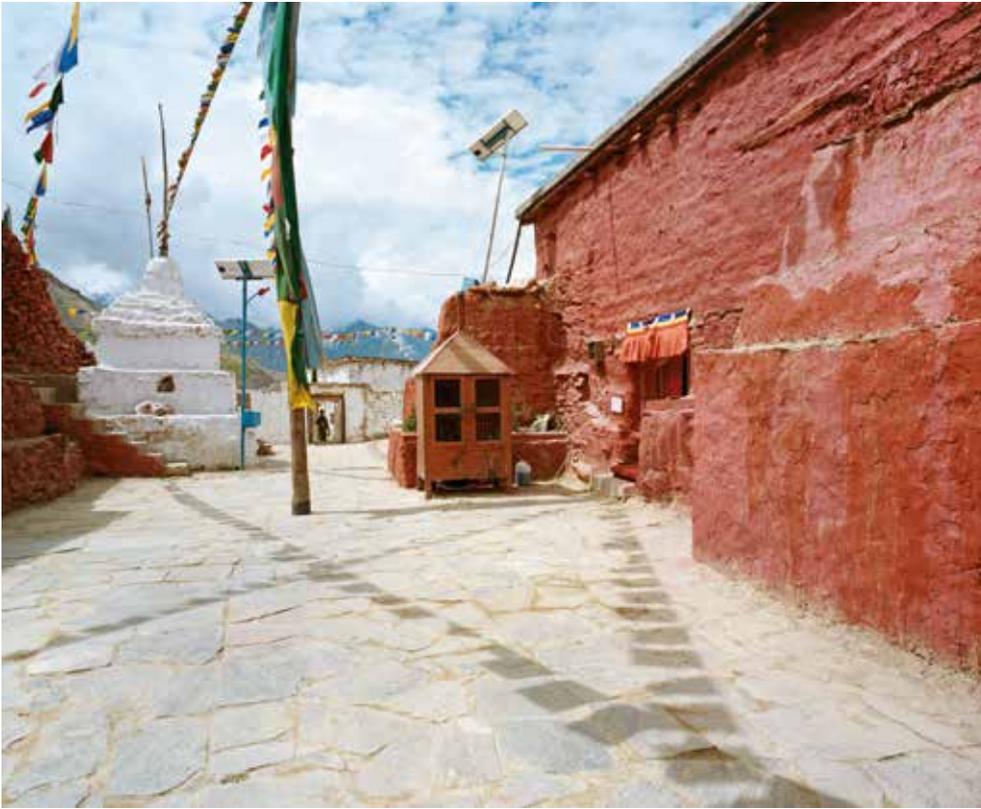
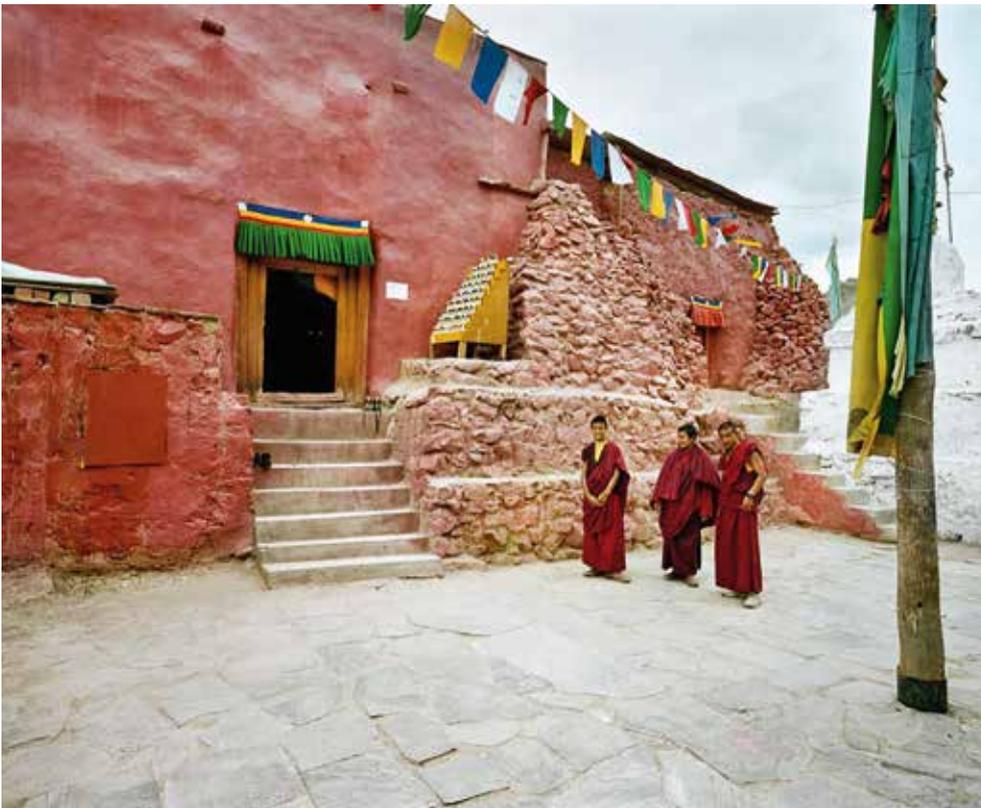


Fig. 5: Site plan of Nako.

Fig. 6: Nako Gompa.

Fig. 7: Nako Gompa.



provides a sound framework for future work. Especially the main temple of the complex has suffered considerably through history and contains historical overpaintings of different periods. Rather than only considering these more recent layers isolated within the structure, I am discussing each in terms of the historic phase to which it bears witness. Wherever possible, I also link these phases to other temples in the village and the wider region.

THE EARLIEST PHASE

The largest temple of Nako, the Main Temple (*gTsug lag khang*) or Translator's Temple (Lot-sawa Lhakhang, *Lo tsa ba lha khang*), is also the oldest monument in the village (see figs 7 and 61). The latter name signifies that the temple is considered a foundation of the Great Translator Rinchen Zangpo (958–1055), who is well known not only for his voluminous translation work of Buddhist texts from Sanskrit into Tibetan but also the temple foundations attributed to him. However, there is no internal evidence preserved that would support this attribution.

Instead, the earliest phase of the Nako monuments can safely be placed between the two benchmark monuments of early Buddhist art in the Western Himalayas, the Tabo Main Temple and the Three-Storeyed Temple at Alchi, also known as the Alchi Sumtsek (*gSum brtsegs*). The renovation of the Main Temple of Tabo monastery was finished by 1042 and provides a comparison attributable to the Purang-Guge Kingdom at the height of its power and material means.⁶ The Three-Storeyed Temple or Sumtsek at Alchi, in contrast, is located far away in Lower Ladakh and cannot have been completed before the early 13th century.⁷ As I have shown in a number of publications taking different angles, the Alchi Sumtsek is to be considered the last major monument of an independent early Buddhist artistic tradition in the Western Himalayas.⁸ Along with the other monuments in the Alchi group, the Sumtsek represents an offshoot of Western Himalayan art with close association to the latest flourishing of pre-Islamic art of Kashmir.⁹

The Translator's Temple is an almost square main hall with an apse of a little bit more than half its width in the back (see figs 60 and 63) The ceiling of the room is extremely high allowing the mandala circles on the side walls to cover almost the whole wall (see fig. 36 in Gruber's contribution). In its original conception, the Translator's Temple is dominated by three mandalas, the apse in the back of the temple is occupied by the deities of the Vajradhātu Mandala (see fig. 63), the left side wall by the Dharmadhātu Mandala (see fig. 64), and the right side wall by the Sarvavid Mandala (see fig. 65). Their relative location to each other is important, as it expresses a hierarchy between these mandalas that is also found in comparable monuments. The statue of the goddess Prajñāpāramitā to the left side of the niche (see fig. 166 in Müller's contribution) also belongs to the original conception, and she may once have had her own assembly painted around her.

6 Klimburg-Salter 1997; Luczanits 2004: 33-56.

7 Goepper 1990; Goepper and Poncar 1996.

8 Luczanits 2004: 125–195; and the more specialised articles Luczanits 2003a: example 1, 2005, 2006a, 2006b, 2006c, 2007a. On the development of the Alchi monastic complex see Luczanits and Neuwirth 2010.

9 On the complexities of this relationship see also Flood 2009: 61–87.

Vajradhātu Mandala

The apse in the back of the temple is occupied by the clay statues of the Five Buddhas with Vairocana in the centre (see fig. 130 in Loseries' contribution). These sculptures, as well as a figure of the goddess Prajñāpāramitā on the wall to the left of the apse (see fig. 165 in Müller's contribution), have been considerably altered through repair and overpainting. For example all jewellery of the sculptures was replaced and some of the figures were almost completely reworked (see fig. 68).¹⁰ However, in their original appearance these statues do go back to the time of the foundation of the temple, when the temple walls were also painted. This is not only indicated by their relationship to the original paint layer in the apse, but also by some sculptural detail, which despite the overpainting are evidence of the high quality of the original workmanship. This is best visible in the throne frames of the main images, in particular the fantastic depictions of the sea monsters (*makara*) placed on the upper cross-bar of the thrones (fig. 8).

The Five Buddhas in the apse represent the core deities of a Vajradhātu Mandala, the secondary deities of which have been painted around them. However, only a small part of the original paintings depicting these deities is preserved, mostly to the side and below the figure of Ratnasambhava, who is also the only Buddha of whom the painted animal mounts, a pair of horses, are preserved (fig. 9). Besides the horses painted below, the throne as Ratnasambhava's vehicle (*vahana*), there is a representation of Bodhisattva Vajraketu, holding a banner in his right hand. Vajraketu is one of the four Vajra-Bodhisattvas surrounding Ratnasambhava in the Vajradhātu Mandala. Even more decisive is a vajra painted inside an aureole representing the goddess Sattvavajrī (*rDo rje sems ma*) who attends the central Vairocana. These



Fig. 8: Sea monster (*makara*) on the cross bar of Vairocana's throne.

Fig. 9: Deities of the Vajradhātu Mandala painted to the side of the sculpture of Ratnasambhava.

¹⁰ The nature and different layers of repair can now be better understood through the technical analyses undertaken by the Institute of Conservation, University of Applied Arts Vienna. (Pöllnitz 2009; see also contribution by Bayerová in this book).

paintings, as fragmentary as they are, not only allow for a more precise identification of the depicted theme, but also confirm that the sculptures of the Five Buddhas belong to the original conception of the temple. Minor fragments of the original paint layer, most representing robed Buddhas, can be observed throughout the apse, and in the lower level are the highly fragmentary remains of a large wall-text,¹¹ but nothing else is preserved enough to contribute further to the interpretation of the apse.

Dharmadhātu Mandala



Fig. 10: Buddha Amoghasiddhi of the Dharmadhātu Mandala.

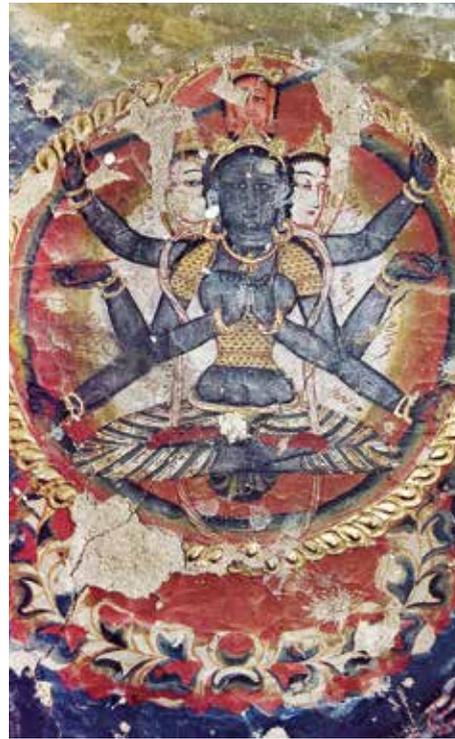


Fig. 11: Goddess Tārā, consort of Amoghasiddhi in the Dharmadhātu Mandala.



Fig. 12: The minister of the Seven Jewels of a Universal Monarch (*cakravartin*) in the Dharmadhātu Mandala shown in local dress.

The best preserved original paintings in the Translator's Temple are those of the south wall (see fig. 64). The whole wall is occupied by a single mandala of an eight-armed tantric form of the Bodhisattva Mañjuśrī, called Mañjughoṣa or more precisely Dharmadhātuvāgiśvaramañjuśrī, a name that can be translated as "Mañjuśrī, the Speech Lord of the Sphere of [Buddhist] Doctrine". This deity is closely associated with Buddha Vairocana and represents him in this mandala, the full name of which is Dharmadhātuvāgiśvaramañjuśrī mandala.¹² Generally, the Dharmadhātu Mandala is of crucial importance in the early Buddhist monuments of the Western Himalayas from the 10th to the 13th century, as it is the most frequently represented mandala in the region besides the Vajradhātu Mandala itself, and also is second to that in hierarchy. The Nako representation is certainly the most detailed and expressive depiction of this mandala preserved throughout the Himalayas.

¹¹ Kurt Tropper is working on this inscription.

¹² This mandala is described in numerous sources, of which the DVMV-Q 1955 appears to be most relevant for the Nako depiction. Other sources consulted are de Mallmann 1964, 1986: 60–62; Nagano and Tachikawa 1989; Tachikawa 1999.

The Dharmadhātu Mandala is centred on a white or yellow, four-faced and eight-armed form of the Bodhisattva, which in Nako has been coarsely overpainted in white (see fig. 132 in Loseries' contribution). The main image is surrounded by the so-called Eight Uṣṇiṣa, their name referring to the cranial protuberance of the Buddha (see Luczanits 2003b, fig. 2a). The four other Buddhas bear their usual name, but are also four-headed and eight-armed (fig. 10) and are surrounded by the Sixteen Vajra-Bodhisattvas, a group of deities that also occurs in the Vajradhātu Mandala. Together with the female counterparts of the Buddhas (fig. 11), placed in the intermediate directions, these deities occupy the central circle of the mandala.

Around the central circle, in the corners of the inner square, the Seven Jewels of a World Ruler (*cakravartin*) are drawn along with an additional symbol not preserved. Among these, the illustration of the Precious Queen, dressed in an almost transparent white coat in the local style and wearing rows of necklaces (see Luczanits 2003b, fig. 2b), and the Precious Minister, dressed in a blue coat and wearing a flat hat of the same colour, give an indication of the garb of local nobility (fig. 12). Finally, four wrathful gate-keepers protect the doors of the inner palace (fig. 13, left), which represents the first or inner circle of the mandala.

The second square of the mandala, and also its second circle of deities, contains forty-eight female personifications of a Bodhisattva's stages, qualities or accomplishments. Two of them are shown seated in the centre of figure 13, goddesses personifying magic spells (*dhāraṇī*) and seated in the northern quarter of the second circle. In addition, four offering goddesses occupy the corners of this square, and four female gate-keepers protect its doors (fig. 13, right goddess).

The third or outer palace of the mandala, the third circle of deities, accommodates the Sixteen Bodhisattvas of the Fortunate Aeon, again a group of deities shared with other mandalas, but the arrangement and iconography of the Bodhisattvas in this group are quite diverse from case to case.¹³ The Bodhisattvas are joined by eight offering goddesses represented to



Fig. 13: Two gate-keepers and two goddesses personifying magic spells of the second palace of the Dharmadhātu Mandala.

13 See the description of the Lhakhang Gongma for these Bodhisattvas in the Vajradhātu Mandala.



Fig. 14: Western gate of the Dharmadhātu Mandala with the gate-keeper Padmāntaka.

their sides, the goddess Gandhā being drawn with exceptional attention to detail (see fig. 110 in Kerin's contribution). In addition, eight wrathful deities occupy the gates and corners of this square, among them the red Padmāntaka in the western gate (fig. 14). Here the mandala architecture concludes with four elaborate gates and the outer circles of vajra and fire.

It is rather unusual, but not unique, that the deities of the outermost and fourth circle of the mandala are represented outside the mandala proper which is concluded by the fire circle.¹⁴ In Nako, the protective deities assembled in this circle take up the remaining wall space to the left and right of the mandala proper. There, an assembly of originally 156 deities was depicted in thirteen rows. Besides more common groups, such as the Four Great Kings (*caturmahārāja*) and the Guardians of the Directions (*dikpāla*),¹⁵ this assembly contains a rich array of Hindu and pan-Indian deities and thus is a vivid example for the rich Indian heritage transferred to the Tibetans. As a detailed study of this representation has shown, at Nako more deities are represented than usually described in the texts, and thus some groups of deities represented are yet to be identified more precisely.¹⁶

Sarvavid Mandala

The north wall is also covered by a single mandala, but its central section was repainted during a later period (see fig. 65). Nevertheless, it can be identified as one of the main mandalas as described in the Sarvadurgatipariśodhana Tantra, a text dedicated to rituals that purify from the three lower destinies of rebirth. It is the depiction of these destinies around the mandala that ascertains its identification (see below).¹⁷ This mandala is also closely related to

14 Other examples are preserved in one of the Dunkhar caves, the Guhyasamāja Cave (Pritzker 1996), and Saspol Tse, where only one side of the outermost deities is left.

15 See Luczanits 2003b, fig. 2a for the representation of Rāvaṇa as protector of the southwestern direction.

16 Compare Luczanits 2008 with, e.g. de Mallmann 1986: 62.

17 The mandala as it is depicted here and at other places in the Western Himalayas is not identical with

the Vajradhātu Mandala and developed similarly in the early 8th century. Here, too, Buddha Vairocana occupies the centre, in this case he is seated in meditation, has four heads, and is called Sarvavid Vairocana (*sarvavid* means “all-knowing”). I thus refer to this mandala as the Sarvavid Mandala.

In the centre of the Sarvavid Mandala Vairocana is surrounded by two circles of deities, four Buddhas and goddesses on the inner circle—the Buddhas differing in name and iconography from the usual Five Buddhas—and the Sixteen Vajra-Bodhisattvas. Four offering goddesses occupy the corners of the central square. The overpainting of the centre thus follows the original, but the original iconographic details of the deities are lost.

The central palace is surrounded by three squares of different background colour, each of them occupied by another group of deities. In the inner square are the Sixteen Bodhisattvas of the Fortunate Aeon, each with individual iconography. In the middle square are the eight monks and eight Solitary Buddhas (*pratyekabuddha*), which are not differentiated individually. In the outer square are the Eight Wrathful Ones and four offering goddesses, four more wrathful deities occupying the corners.¹⁸ This concludes the actual mandala palace, the outer doors of which are richly decorated. Outside the palace, but within the mandala proper and thus surrounded by the vajra and fire circles, is a circle of Hindu and pan-Indian deities serving as protectors. In the cardinal directions are the Guardians of the Directions, such as Kubera in the north.

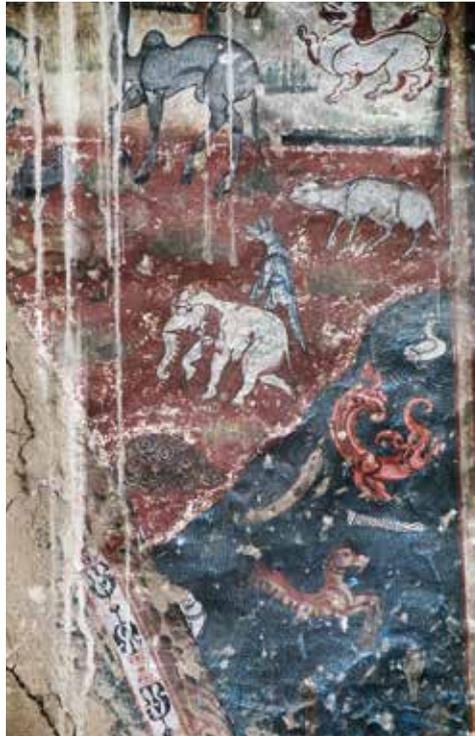


Fig. 15: The realm of the hungry ghosts in the upper right corner outside the Sarvavid Mandala.

Fig. 16: The realm of the animals in the upper left corner outside the Sarvavid Mandala.

that described in the *Niṣpannayogāvalī*, which essentially represents the second main mandala of this cycle headed by Mahāvairocana in the form of Śākyasiṃha. This one, too, may have the destinies depicted around it.

18 See also Luczanits 2003b, fig. 3b.

Outside the mandala the Six Realms of Existence are depicted, with an emphasis on the lower ones to be avoided. The “hells” in the bottom left are largely lost, but the Realm of the Hungry Ghosts in the top left corner and that of the animals in the top right are the most vivid representations of those themes that have come down to us. The realms of the humans, gods and demi-gods (*asura*) in the lower right corner are marked by a large representation of a stupa, but otherwise very little remains. The Nako depiction is the earliest known representation of these realms throughout the Himalayas and also the most elaborate one known so far. In the sorrowful world of the hungry ghosts food burns in the mouths as well as on the plates (fig. 15).¹⁹ The world of animals is rich in different species set against differently coloured backgrounds (fig. 16). Among others a curious turtle-like creature is represented on the terrain just below the white elephant, while the water is dominated by a sea monster (*makara*). Note the fish whose outline was delineated but who was never painted.²⁰ Alterations in the background cannot be accidental, and rather are indicative of different categories of hell and animal realms. The use of red in the hells is indicative of burning mouths and food, though in the animal realm, red rather alludes to the hot Indian plains where the elephant lives, while the upper bright areas appear to indicate highlands and steppes and their animals, with the camel in a position of transition.

Further, the thirty-eight planetary deities represented in columns of fourteen rows to the left and right of the mandala belong to its assembly. One of the best preserved deities in this group is Rahu, the personification of the eclipse, with the lower body of a snake and holding the sun and moon disks in his hands (see Luczanits 2003b, fig. 3e). The iconography of the stars and constellations (lunar mansions), embodied as distinctive goddesses, still awaits a detailed study. These deities certainly cannot be identified on the basis of the obvious canonical textual sources used for this article. Separating the planetary deities from the other Hindu and pan-Indian deities in this way is unique to the Nako representation.

A comparison of individual deities in the two mandalas opposite each other reveals that stylistically the paintings of the north wall differ considerably from those on the south wall. In addition, there are also distinct iconographic differences when the same deity is represented on both sides. This clearly indicates that the walls of the Translator’s Temple were painted by two groups of artists with different artistic backgrounds.

Both the Dharmadhātu and Sarvavid Mandala on the side walls of the Translator’s Temple are particularly remarkable for their gilded relief paintings. In the central circle of the south wall mandala, not only all jewellery of the deities is painted in high relief and gilded, but also the haloes and other decorative elements (fig. 11). Equally, the flames of the mandala circle are gilded and the garlands with faces of glory (*kīrtimukha*) along the mandala palace walls are virtually three dimensional due to this technique. On the north wall the raised and gilded sections are less conspicuous, but even more refined than on the south wall; this feature is particularly true for the depiction of the deities.²¹ Sadly in many instances, this gilding has been scratched off in want of gold.

¹⁹ See also Luczanits 2003b, fig. 3c, depicting a stream of hot and cold water in this realm.

²⁰ See Luczanits 2003b, fig. 3d.

²¹ See Luczanits 2003b, fig. 3a.

Perfection of Wisdom

Returning to the main wall of the temple, to the left of the niche containing the Five Buddhas heading a Vajradhātu Mandala assembly is a sculpture of the goddess Prajñāpāramitā (see fig. 166 in Müller's contribution). This sculpture is part of the original assembly, as also proved by fragments of paintings and inscriptions underneath her. This statue has been severely damaged by a water intrusion in 1998 and the present version is a reconstruction made as part of the restoration of the temple.

The area underneath the sculpture of Prajñāpāramitā preserves three original motives. Directly under the throne was a row of four Buddhas, only one of them well preserved, another one lost in the 1998 water intrusion. To the right of the fourth Buddha is a depiction of Green Tārā standing in an idealised single-celled temple structure topped by an *āmalaka*, a stone-finial resembling the myrobalan fruit (fig. 17), and related to this depiction underneath is an only vaguely discernible donor depiction of which the context can now, after the cleaning of this area, be better understood. Underneath the donor depiction are the remains of an incomplete inscription of four stanzas.²² As the sculpture of Prajñāpāramitā, Green Tārā is a new motive in the murals in the area, as is the architecture in which she is placed. Such structures are found throughout Northwestern India and, of course, in Kashmir, but the depiction is not faithful enough to real architecture to actually allow speculation on a place of origin. Given the poor condition of this section, it is necessary to describe this important depiction in detail.

Within the temple, Tārā stands in a relaxed attitude, her legs crossed at knee level. Her right hand performs the gesture of giving (*varadamudrā*) and her left hand, palm up, is raised to her side (fig. 18). Just outside the pillars demarcating the temple's interior, the goddess is



Fig. 17: The area underneath Prajñāpāramitā after cleaning.

Fig. 18: Green Tārā inside a temple.

²² For a transcription of the legible parts of the inscription see Luczanits 2004: 300-301.

flanked by two much smaller figures, their heads only reaching to the level of the bent knee. On the right side probably stands a red skinned monk holding a begging bowl towards Tārā. The figure on the left is clearer and probably represents a royal donor. He seems to be bearded, has his right hand raised in a gesture of veneration (*vandanābhinayamudrā*) or waves a fly whisk. His upper body appears to be bare, as are his feet, and he wears a long red skirt bound at the hip. A small inscriptional panel underneath the king once may have identified the temple and the goddess. To the right, outside the temple, sits an extremely fragmented female donor in local garb and behind her stands a servant dressed in red holding some offering. Underneath them is another inscriptional panel of which only a few letters remained. The donor depiction noted earlier is represented directly underneath the temple scene and is centred on a male donor seated under a baldachin. He is surrounded by a group of seated figures and to the right of them are a few horses. Underneath of them is a panel containing the fragmentary inscription.

As such, this representation gives the impression that it is a distinctive place that is depicted here, and it reminds of the depiction of holy places attended by monks and venerated by kings as they are represented on the garment (*dhotī*) of Avalokiteśvara in the Alchi Sumtsek, but the Nako depiction lacks the distinctive Kashmiri elements that are so characteristic for those representations. Of course, the position of the king and his gesture does have precedence in Kashmir, in particular in the depiction of King Avantivarman.²³ This motive has been taken up regionally as well, as the Vajradharma sculpture of Poo demonstrates.²⁴

The door to a small protector's room in this area is most likely a later addition breaking through the right part of the wall into a room that has been built around the corner formed by the outer walls of the main hall and the apse. It may well be that the intention to add a protector's chapel to the older structure was the cause for this alteration.

Fragmentary Remains

The entrance wall has almost been completely replaced during a past repair and only bears a few fragments of a donor depiction to the left of the entrance. Its other paintings, rather coarsely executed, stem from different rather recent periods and will be dealt with below.

Similarly, the roof of the temple was destroyed in a 1975 earthquake, and for a considerable period only a cursorily attached tin roof covered the monument and protected the murals and sculptures. In the course of the conservation project documented by this publication, the roof had been replaced by one in a traditional style, also changing the position of the painted ceiling boards and clustering them together in the centre of the ceiling (see fig. 142). As the different periods evidenced in the painting on these boards indicate, this was only the most recent roof repair and even before this last repair only few of the ceiling panels could possibly have been in their original position.

Nevertheless, some of the brackets supporting the two main cross-beams retain their original painting (see fig. 144 in Kalantari's contribution), and also a few of the ceiling panels probably go back to the founding of the temple as well. These again attest to the originality and innovative power of the painters who decorated the temple. On one panel pairs of mythical animals have been inserted into squares formed by textile-like strips with circles overlapping

²³ See e.g. Fisher 1989: fig. 17.

²⁴ See Luczanits 1996: 73–75 and Luczanits 2013 for pictures of Vajradharma (available at: <http://www.luczanits.net/>).

each other as if patched together (see figs 152 and 153 in Kalantari's contribution). The ceilings are discussed in detail in the article by C. Kalantari in this publication.

EARLY EXPANSION

The impressive structure of the Translator's Temple is not the only early foundation at Nako. In fact, there are indications that several temples had soon been added to the complex, but it is unclear in what succession and how many. One such indication is the door of the White Temple (Karchung Lhakhang, *dKar chung lha khang*). This temple preserves a once-marvellous wooden door-frame, with only some scenes of the life of the Buddha carved on the lintel remaining legible today (see fig. 169 in Ziegler's contribution). Its deplorable condition, the simple architecture of the White Temple and the absence of any substantial earlier paint layer within that structure make it unlikely that its present location is original. Theoretically, it is even possible that this door once belonged to the Translator's Temple, but it would be rather unlikely that an original door would have been removed from the main temple and still re-used, and details of the woodcarvings appear closer to Alchi mural paintings than those of the Translator's Temple, thus indicating a slightly later date for the door.

The door may thus belong to an early expansion phase roughly contemporaneous with the Upper Temple (Lhakhang Gongma, *Lha khang gong ma*), which locally is ascribed to the same founder as the Translator's Temple. Situated directly opposite the Translator's Temple, the Upper Temple has a considerably higher floor level and is a much simpler construction (see fig. 75). Its square measures approximately 5.5 x 5.5 m, with a height of 4.6 m (see fig. 74). Despite its precarious condition before conservation in the early years of this millennium, the temple preserved much of its original interior decoration on all walls. While the main wall is covered mainly with statuary, the side and entrance walls still preserve extensive parts of the original murals (see fig. 36 in Gruber's contribution).

Even the two capitals carrying the two main beams, here aligned parallel to the side walls, and the brackets supporting them at the walls preserve considerable parts of their painting.



Fig. 19: Original capital, beams and brackets of the Upper Temple.

The central panel of the capitals is painted with a vase of plenty, a symbol of well-being, and the sides of the capitals have a carved triangular projections not found in the Translator's Temple (fig. 19).

Central Goddesses

The main wall of the Upper Temple is structured into two horizontal levels separated by a dividing line (see fig. 82). On the upper level is a unique sculptural configuration with a crudely reworked main image flanked by eight Buddhas in monk's robes, which preserve at least some of their original features. Undoubtedly, this configuration is to be identified as an assembly of the goddess Prajñāpāramitā (see fig. 164 in Müller's contribution), even though the number of Buddhas does not come up to the commonly described Buddhas of the ten directions. Comparable depictions are known from Alchi, but Nako preserves the only depiction hitherto known where a goddess, as the main image of a mandala composition, is flanked only by Buddhas.²⁵

In the lower level of the main wall, underneath the sculptures is a horizontal frieze depicting a unique, but fragmentary depiction of the Green Tārā rescuing from the eight dangers flanked by the group of the Eight Great Bodhisattvas in their heavenly mansions. Sadly, much of this lower level is damaged, some of it obviously afflicted on purpose, making an exact identification of all figures rather difficult.

The central image of Green Tārā rescuing from the eight dangers has been studied in great detail by Eva Allinger (2005). Four-headed and eight-armed, the badly mutilated Tārā stands under a large tree. Her eight arms correspond to the hands emerging from clouds with each of the dangers, which are represented to the sides of the goddess. While there is no direct textual source for this depiction, it is clear from Allinger's research that the Tārā represented here combines the eight dangers with Tārā as "Mother who produces all the Buddhas" from the Tārā Tantra.²⁶ An extensive row of offerings at the bottom of the scene is flanked by two female supplicants in local dress and possibly priests standing behind them.²⁷

Green Tārā is flanked by the Eight Great Bodhisattvas residing in beautifully detailed and varied palace structures, which reveal the dedication and skills of the artists (fig. 20). Too little is preserved from the Bodhisattvas of this group to be able to reconstruct the original composition and iconography through comparison and/or literary descriptions. The three Bodhisattvas that can be identified are Mañjuśrī and Avalokiteśvara occupying the two palaces to the left of Green Tārā while Vajrapāṇi is in the second palace to the right of the goddess. The latter holds a vajra in front of his chest and, uniquely for Western Himalayan depictions, is green.²⁸

The two-part composition on the main wall can be read as follows: on the central axis female donors present offerings to female main deities, both of which are considered as "mothers of the Buddhas". The lower level can be interpreted as more mundane, with Green Tārā and the Eight Great Bodhisattvas directly responding to the needs of our world. The upper

25 These sculptures have been studied in great detail in Perwög 2009.

26 For a translation of this tantra see Willson 1986: 44–85, the four-faced five Buddha forms described pp. 75–80. The colouring of the four faces of Green Tārā in Nako conforms to her being interpreted as the northern deity, with the colours of the other three secondary Buddhas in their respective directions, the yellow, southern back face represented on top, and Vairocana as the central Buddha.

27 See the complementary documentation to Allinger's article on Christian Luczanits' homepage <<http://www.luczanits.net/>>.

28 Green forms of this Bodhisattva are known from Northeast Indian manuscript illuminations.

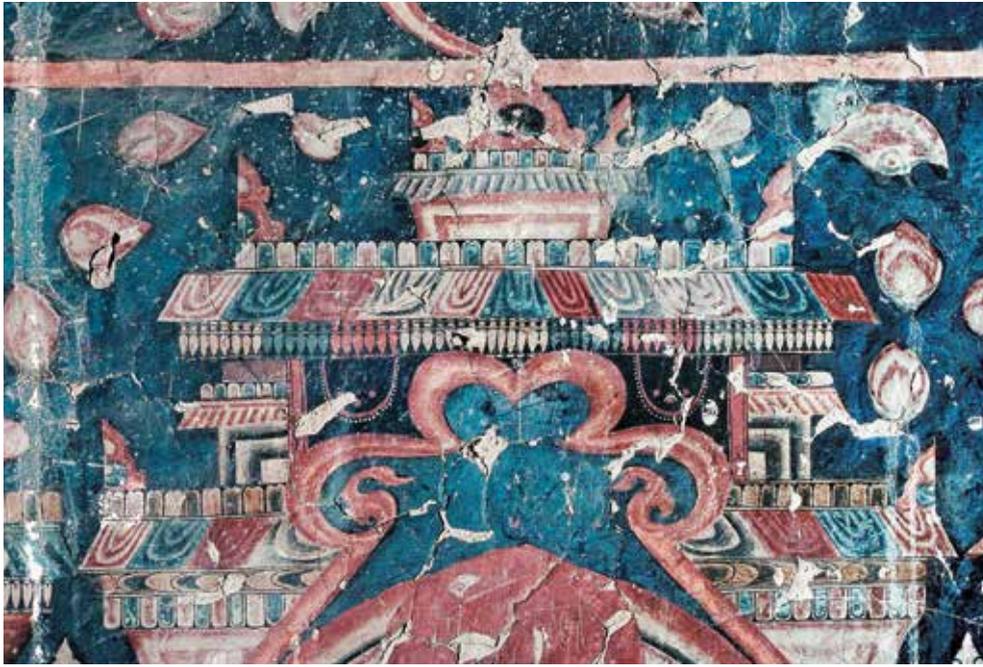


Fig. 20: Superstructure of a heavenly palace inhabited by a Bodhisattva; main wall of the Upper Temple.

level assembly can be read as a cosmos of Buddhahood, with Prajñāpāramitā, the Perfection of Wisdom, as the mother of all Buddhas in the centre and the entire assembly hovering in space.

More Vajradhātu

The side walls continue the theme of Buddhas in the cosmos, but in this case there are mandalas floating in the middle of miraculous Buddha assemblies (see figs 80 and 81). In the corners are fragmentary remains of water ponds, from which a lotus stem flanked and supported by snake deities (*nāga*) emerges. Branches of these stems cover the entire surface to the sides of the mandalas, and envelope seated Buddhas performing different gestures. On the main wall side they also hold symbols of luck in the lower area, the Eight Auspicious Symbols on the left wall and the Seven Jewels of the King on the right wall. On the left wall there are also traces of a triad of deities centred on a standing white Bodhisattva.²⁹

As in the Translator's Temple, the side wall mandalas cover the whole height of the room, but the two represented here are practically identical versions of the Vajradhātu Mandala. Both consist of an inner circle divided into nine compartments surrounded by two palace structures, the inner one without gate-keepers. In both mandalas, one-headed Vairocana is in the centre and performs what appears to be a variant of the teaching gesture (*dharmacakramudrā*) in which the palms are directed towards the viewer; both feature the same groups of deities (fig. 21). Vairocana is surrounded by four goddesses personifying the symbols of the Buddha families, therefore also known as "mothers of the families". The squares in the cardinal directions are occupied by the four surrounding Buddhas and their Bo-

²⁹ There is very little detail preserved of these three deities: the middle one appears to be one-headed and two armed, and I cannot recognise a lotus on the available documentation. The left deity is green and holds a white object, possibly a conch in the left hand towards the mandala. This may thus be the offering goddess Gandhā. The third deity is probably white, but nothing else can be recognised.

dhisattva retinue, the Sixteen Vajra-Bodhisattvas. The corner compartments of the inner circle house the four inner offering goddesses, and the four outer goddesses are in the corners of the second square. The group of deities are rounded out with the Sixteen Bodhisattvas of the Fortunate Aeon and the four gate-keepers protecting the gates.

At first glance the iconography of the Sixteen Bodhisattvas of the Fortunate Aeon represented in the outer palace appears different, but actually is the same, as in both cases the four Bodhisattvas in the same direction are all of the same iconography as the primary Bodhisattva of the family occupying that direction. Thus, for example, all Bodhisattva in the east hold a vajra and have the left on the hip (fig. 22), just like Vajrasattva in the retinue of Buddha Akṣobhya. The other Bodhisattvas assimilate Vajraratna, Vajradharma and Vajrakarma. Slightly different, alternating body colours are used in the right wall mandalas.

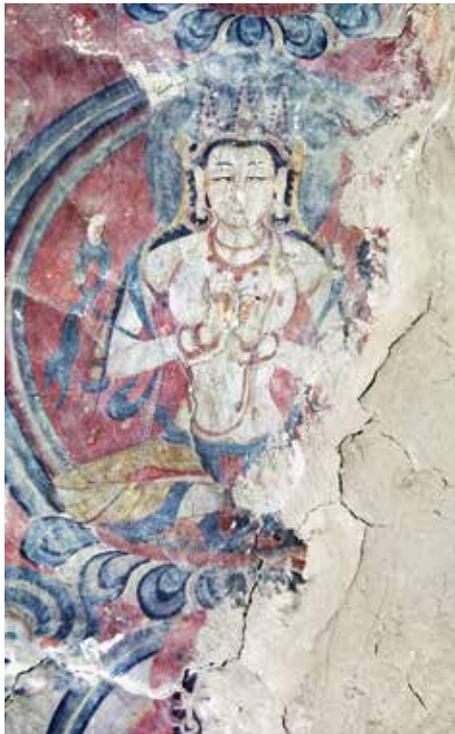


Fig. 21: Buddha Vairocana in the centre of the right wall Vajradhātu Mandala in the Upper Temple.



Fig. 22: Eastern Bodhisattva of the Fortunate Aeon with the iconography of Vajrasattva; Upper Temple, left side mandala.

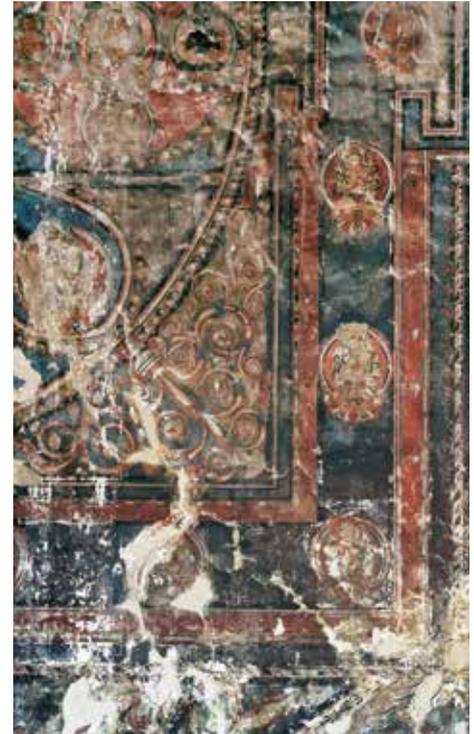


Fig. 23: Northeast section of the Vajradhātu Mandala on the right side wall of the Upper Temple.

The four outer offering goddesses are in the corners of this palace, and the gate-keepers are shown peacefully.³⁰ Such a doubling of the mandalas is highly curious and only documented here. Possibly a very detailed study with textual sources will reveal that the slight differences in the layout, colouring and a few other details are actually significant and represent two different commentarial traditions.

In comparison to the Translator's Temple murals, the paintings of the Upper Temple are executed with great dedication to detailing (fig. 22). Hair and textile patterns, for example are extremely finely drawn, as are the details of the jewellery. As in the Translator's Temple, the shading is executed with particular commitment on orange-hued figures. Also featuring in the

³⁰ No gate-keeper is preserved from the left wall mandala, but the mandorlas in the gates indicate that they would have been wrathful. This is the only substantial iconographic difference between the two mandalas.

Upper Temple paintings are colourful decorative scrolls and scarves filling larger, otherwise void sections of the mandala. In the corners of the mandalas flower scrolls flow from a small vase (fig. 23), and the outer areas of the right wall mandala are filled with beautifully drawn ribbons.

East Asian Armour

Moving to the entry wall (see fig. 83), a vision of the realm of the Buddhas that is also the theme of the other walls is continued at the very top of the wall, with two rows of twenty seated Buddhas each. Underneath these rows of Buddhas and right above the entrance is another unique depiction among the Western Himalayan monuments. Instead of local protector deities, as represented at Tabo, or Mahākāla and his retinue, as in the Alchi group of monuments, in Nako



the Four Great Kings guard the entrance. As in the depiction of the same kings in the outermost assembly of the Vajradhātu Mandala in the Translator's Temple, they not only wear Chinese or Central Asian armoured dress but also have facial features consistent with this ethnic heritage. Each of the Four Great Kings has a differently coloured background, but only the leftmost depicted against yellow is really preserved, and even though he appears to have no mongoose, the club in his hand identifies him as Vaiśravaṇa (*rNam thos sras*), the protector of the north (fig. 24). One would thus expect the others follow the cardinal directions clockwise from east to west, but the colour scheme assigned to them—green, white and blue—does not facilitate a firm standpoint.³¹ Situated above the door, the Four Great Kings take an intermediate position between the heavenly and earthly realms, as they also do in the imagination of the cosmos, where they inhabit the palace on top of Mount Meru or the lowest heaven immediately above it.

That the arrangement of the Four Great Kings cannot be ascertained is a pity, as it would have helped to clarify the succession and arrangement of the group of figures at their sides, namely the Ten Wrathful Deities. To come to this number, I interpret the two protectors that were once sculpted to the sides of the door, and of which only their halos remain, with the two groups of four wrathful deities painted immediately above them. Again, too few are preserved with any iconographic details that one can be sure about their distribution, but given the cosmological conception of the temple this group makes perfect sense, as the Ten Wrathful Deities are directional protectors residing in the cardinal and intermediary directions as well

Fig. 24: Vaiśravaṇa, the king of the northern direction, above the entrance to the Upper Temple.

31 Green and white are both possible colours of Dhṛtarāṣṭra, guardian of the east. Virūḍhaka in the south could be against blue background, but Virupakṣa, in the west is to be expected red. See e.g. Skorupski 1983: 49–51.

as zenith and nadir.³² The original paintings underneath the halos of the two protector sculptures are heavily damaged and include two mandalas. On the left is a nine-deity mandala with a red semi-wrathful deity in the centre surrounded by what appears to be females seated in the posture of royal ease (*lalitāsana*).³³ To the right is a slightly smaller five-deity mandala of wrathful deities with vases in the intermediate direction.³⁴ No direct comparisons to these mandalas could be found, and thus they remain unidentified.³⁵ At the right side there are additionally four standing monks represented above each other along the edge of the wall, and a four-armed form of the Eleven-headed Avalokiteśvara to the right of the mandala. The parallel area on the left wall is completely lost.

These two oldest temples of Nako attest to a distinctive phase in the early development of (Western) Tibetan Buddhism. The decorative, iconographic and technical details observable in the Nako paintings show a large number of inventions when compared with the renovation period murals in the Tabo Main Temple attributable to the mid-11th century. On the other side, the Nako murals often represent iconographic themes that find comparison in the far off Alchi monuments. However, these comparisons never match perfectly, but only closely enough to allow the main topics at Nako to be identified. Secondary topics, such as those at the entry wall of the Upper Temple, rather compare to West Tibetan monuments such as Dunkhar and Phyang.

Also the other two temples in the monastic compound, the White Temple and the Gyaphagpa Lhakhang, bear traces of an older paint layer that may go back to this first flourishing of the site, but not enough is visible to ascertain this.

EARLY DRIGUNG PHASE

A major change in cultural background then becomes visible with the Padmasambhava Temple on the southern end of the village. The temple is built around a central pillar housing a rock with the footprint and a niche with a statue of this venerated teacher (fig. 25). Its murals are completely darkened by soot and extremely difficult to read and photograph. Damage, graffiti and splashes of whitewash have further distorted their appearance, and mirroring makes photography largely unsuccessful. The paintings on the outside of the central pillar are

32 The iconographic details preserved are as follows: the deities on the left side are (from left to right): lost; bright blue, brandishing sword; green grey, hand raised at side; black, brandishing vajra or object with vajra end and holding skull-cup (*kapāla*), the only one standing on corpse. The deities on the right side are: yellow with red shading, with horse head on top = Hayagrīva; dark green, rounded black object held to the side; blue brandishing a sword and threatening gesture (*tarjanīmudrā*; damaged after 1994); black with long object held upright at the side (sword or club) and skull-cup (*kapāla*).

33 The mandala is too poorly preserved for identification of iconographic details for any of its figures. As in some early mandala depiction it is just a circle of deities, the outer rim formed by a row of blossoms or wheels, but here a row of red blossoms (?) surrounds the mandala as well.

34 It is clear that this mandala is centred on an at least three-headed deity that may have been blue (the present white being the ground layer). This deity is surrounded by four wrathful deities in the cardinal directions, the upper (western) one being blue and brandishing a vajra. In the intermediate directions of the eight-petalled lotus are vases. The mandala is surrounded by vajra and fire circles and a charnel ground is depicted outside of it, the last clearly legible parts of which have been obliterated by the post 1994 water damage.

35 My current favourite theory is that the nine-deity mandala represents some form of red Avalokiteśvara. Mandalas showing him in similar position are represented in the Guhyasamāja cave at Dunkar, where it is an Amoghapaśa Mandala. The same cave has a Five-Deity Vajrapāṇi Mandala on the right side of the door, but the Nako mandala may have Trailokyavijaya or Vajrahūmkara in the centre.



Fig. 25: The image and footprint of Padmasambhava, in the centre of the Padmasambhava Temple.

even more damaged than those in some sections of the surrounding walls. I thus can offer only a general overview of the temples' iconographic programme and a rather basic stylistic analysis of some of the better preserved examples for historic assessment.



Fig. 26: White Tārā, entry wall of the Padmasambhava Temple.



Fig. 27: Buddha Śākyamuni, right side wall of the Padmasambhava Temple.

A marked shift from the earlier monuments is immediately apparent due to the red background of the paintings and the strongly compartmentalised compositions on the walls. As before, the murals are topped by a valance, now marked by faces of glory (*kīrtimukha*) emitting clouds in alternation with the triple jewel symbol, while a lozenge pattern marks the bottom of the painted area.

Starting at the entrance located in the corner of the west wall and continuing clockwise, the visitor is first confronted with a composition of Green Tārā flanked by White Tārā (fig. 26) and what appears to be a white male deity, possibly Buddha Vairocana.³⁶ Among others, they are surrounded by further goddesses in the posture of royal ease (*lalitāsana*), thus possibly representing the group of twenty-one Tārās. The following left side wall decoration appears to be completely lost. The back wall (east) has a large mandala in its centre, which I could not identify on the basis of the available photographs.³⁷ This is a pity, because it is this mandala to which the inscribed teaching lineage at the top of the wall likely refers.³⁸ To the right of it is a large multi-armed Avalokiteśvara and smaller representations of other forms of the same deity, such as Ṣaḍakṣara Lokeśvara and Rakta Lokeśvara.

The images on the right or south wall are certainly the best preserved and focus on the earth-touching (*bhūmiśparśamudrā*) Buddha Śākyamuni (fig. 27) flanked by the Buddha of Endless Life, Amitāyus, and the goddess Prajñāpāramitā. The upper row of this wall displays depictions of historical personages and, in the upper right corner just to the side of the entrance, is an inscription. The latter is poorly preserved and has been studied in detail by Kurt Tropper (2010a). The Four-armed Mahākāla underneath the inscription panel and the three riders above the entrance, thus in the left corner of the west wall, serve as protectors of the monument and conclude the iconographic programme of the outer walls.

³⁶ If this is indeed the case the relative position of the deities would be contrary to the conventions usually employed.

³⁷ In the mandala there is a dark main deity with the right hand extended to the knee surrounded by two circles of lotus petals with eight peaceful deities each. Four more peaceful deities are in the corners and sixteen more in the surrounding square. Further, it is clear that the eastern gate is occupied by a white wrathful protector and probably a seated, booted deity in red dress (one of the Four Great Kings?).

³⁸ For the list of the difficult to read names see Tropper 2010a: 166–169.

The central pillar walls are also painted. Besides some smaller protective deities at each side of the niche of Padmasambhava's footprints, the other walls are occupied by a Thousand-armed Avalokiteśvara flanked by deities of the Lotus Family, Amitābha and another large central seated Buddha too damaged to be identified.³⁹ In terms of quality and style the majority of these paintings are certainly later than the mural fragments on the outer walls.

Neither the captions on the back wall, nor the inscription provide unambiguous historical information on the founding of the monument, its decoration or even school affiliation. As Tropper has pointed out, the possible mentioning of a *Dharma mtshan can*, "one who's name contains the word Dharma" (*chos*), does not provide a historical context either (Tropper 2010a: 147–149). However, the occurrence of the same phrase in a caption identifying a monk in the Gyaphagpa Lhakhang indicates a Drigung (*Bri gung*) affiliation for the Padmasambhava Temple as well. This would not be surprising, as by the late 13th century the Drigung School was heavily promoting teachings derived from the Lotus Teacher (Padmasambhava), as is obvious from the iconographic programme in Wanla, Ladakh.

The majority of deities in the temple is associated with compassion, with wisdom taking a secondary position, and there is no theme that could be attributed to Highest Yoga Tantras, except for possibly the mandala at the back wall. The iconographic themes, the entirely different aesthetic of the murals are indicative of a major shift in the religious and artistic milieu of the earlier monuments. In terms of art, the Padmasambhava Temple marks the shift from the earlier Western Himalayan painting style to a local variant of a Central Tibet-derived style as it emerges in the region in the course of the 13th century. While there are many monuments of this style and type in Ladakh, this is the only major example preserved in the Spiti Valley.⁴⁰

Stylistic indicators of the Nako depictions are the lotus pillar columns, veiled throne backs with curved backrest projections terminating in blossoms, the rosettes above the Buddha's ears (fig. 27), and the highlight along the ridge of Amitāyus' nose. These features are more characteristic of the later Ladakhi monuments sharing this style, such as the earlier Alchi Tsatsapuri Temples and the Guru Lhakhang in Phyang, pointing towards a date for the Padmasambhava Temple in the late 14th century. In terms of workmanship and painting quality, however, the Padmasambhava Temple supersedes the comparable Ladakhi monuments.

DRIGUNG GUGE PHASE

The more general themes seen in the Padmasambhava Temple also prevail in the later monuments and repairs of Nako. Of these the somewhat confusingly called "Temple of Wide Proportions", the Gyaphagpa Lhakhang (*rGya 'phags pa lha khang*) then clearly evinces a Drigung School context (see fig. 92). This temple is described in a separate contribution to this volume (see article by M. Kerin) therefore I am just mentioning those aspects of it that are most important to this overview. The temple is of similar size as the Upper Temple, and stands just to the side of it, but its interior differs considerably. All walls are painted in pastel tone colours featuring a single theme each. On the main wall Buddha Śākyamuni flanked by his chief disciples is joined by the group of eight Indian scholars revered in the Tibetan tradition (see fig. 99). On the left side wall, Ādibuddha Vajradhara flanked by two standing Bodhisattvas is accompanied by the Eight Great Siddhas (*grub thob chen po brgyad*) (see fig. 97). This wall also

39 The succession of these themes could not be ascertained on the basis of the photographs.

40 The paintings inside three stupas dome at Tabo monastery are also evidence of an earlier variant of this style.



Fig. 28: Three-headed Hayagrīva brandishing a club; apse of the Translator's Temple.

portrays the founder of the school, identified as Jigten Gonpo (*Jig rten mgon po*), and the monk called Dharma Tshenchen (see fig. 119 in Kerin's contribution).⁴¹ On the right wall the goddess Prajñāpāramitā is flanked by Buddhas (see fig. 98), and on the entry wall the school's protectress Achi (*A phyi*) features prominently above the door (see fig. 100).

We can read this temple as each wall dedicated to a specific theme, which together encompass the basics of the Buddhist teaching for both the lay and the monastic community.

⁴¹ As Jigten Gonpo is an incarnation of Nāgārjuna, depicted at his side, this monastic teacher may be an incarnation of Indrabhūti, shown as the top siddha on his side.

The teaching of the Buddha himself, as communicated by the great Indian teachers succeeding him, is the foundation of Buddhism and Buddhist practice. Buddha Vajradhara stands for the esoteric Buddhist teachings and practices transmitted through the Indian adepts to Tibet and continued there in an oral lineage tradition (*bka' brgyud*), here specifically the Drigung Kagyu School. The goddess Prajñāpāramitā stands for the correct understanding of the phenomena of the world which sprouts from the roots of Buddhist practice and the wisdom aspect of the Buddhist practice itself. As such, this is a wonderfully conceived programme that is concurrently comprehensive and concise and directed towards both monastic and lay communities. As Melissa Kerin (2008, 2010) has already shown, stylistically these paintings reflect a local variant of the Guge style. As also revealed in the colour palette, this style can be seen as a revival of the earlier Western Himalayan painting.

The Gyaphagpa Lhakhang is not the only temple featuring paintings of this period, as damages to earlier monuments were repaired in this style as well. Of particular importance in this regard are the murals in the apse of the Translator's Temple (see fig. 130 in Loseries' contribution). There, on the main wall of the apse above the sculpture of Buddha Ratnasambhava are four rows of four Buddhas in a Guge style, and on the other side of Vairocana's throne frame, above Buddha Amitābha, is Milarepa flanked by his pupils Gampopa and Rechungpa and surrounded by seven additional figures, six of them again representing Milarepa at different episodes of his life (see fig. 124 in Kerin's contribution). In the bottom right corner underneath Milarepa the naked Indian adept Phadampa Sangye is represented (see fig. 125 in Kerin's contribution). Further down on the wall, a three-headed, two-armed, red Hayagrīva (fig. 28) joins Vajrapāṇi in protecting the dharma.

The niche's left side wall features Śākyamuni seated on a lion throne flanked by smaller Buddhas, the nine on the left side preserved from that period, the others even later repairs, indicating that this area has been a weak spot in the architecture of the building. Underneath the Amoghasiddhi sculpture the Five Sisters of Long Life (*Tshe ring mched lnga*), a popular group of five goddesses riding different vehicles who became protectors of the dharma after serving as practice consorts to Milarepa, are added to the pantheon.⁴² On the right side wall is Buddha Vajradhara surrounded by teachers. While the main figure seen today is certainly a later replacement, the more narrowly spaced rows of teachers on the left side (6 rows of the first 3 and more teachers) derive from the original phase of this layer. In addition, there are two Guge-style goddesses to the side of Akṣobhya, namely White and Green Tārā. The row of protective deities from the main wall is continued with two wealth deities, the wrathful Black Jambhala and the Yellow Jambhala.

Only the explicit evidence of the Gyaphagpa Lhakhang places these paintings into the proper Drigung School context. The iconographic themes of these repainting in the Translator's Temple largely mirror those of the Gyaphagpa Lhakhang, but by the nature of their purpose are much less organised. In the Translator's Temple's niche, the representations of Śākyamuni, Vajradhara and Milarepa complement the earlier Yoga Tantra theme and update the temple iconographically with an emphasis on oral transmission, through Vajradhara and the lineage teachers represented to his sides, and indigenous Tibetan practice as exemplified by Milarepa.

42 Their names are Tashi Tsheringma (*bKra shis tshe ring ma*), Thinggi Zhalzangma (*mThing gi zhal bzang ma*), Miyo Lobzangma (*Mi gyo blo bzang ma*), Chodpan Drinzangma (*Cod pan mgrin bzang ma*) and Tekar Drozangma (*gTad dkar 'gro bzang ma*).



Fig. 29: The hungry ghost Sūcimukha kneeling at the feet of Bodhisattva Avalokiteśvara; right side wall of the White Temple.

It is remarkable that Nako remained in Drigung hands even after the emergence of the Guge Kingdom in the late 14th century and was not, as nearby Tabo Monastery, converted into a Gelug School establishment. Judging from the quality of the Guge-period paintings, the Drigung community at Nako certainly did not receive the highest Guge patronage. Guge scroll paintings (*thang ka*) of the Drigung School are rather rare, but two recently identified paintings collected and originally published by Giuseppe Tucci show that Drigung painting may also have been overlooked or misidentified so far.⁴³ The Guge heritage continues in the White Temple, the fourth monument within the monastic compound, but its affiliation is unclear from the little that is preserved of its main paintings.

EXTENDED GUGE PHASE

At first glance, the paintings of the White Temple (see fig. 102) look more recent and also of poorer quality than those of the Gyaphagpa Lhakhang. Again, the temple features single topics on the main walls, and in terms of content they are of a rather general nature. But the

⁴³ Two paintings could be ascribed to the Drigung School: one, Tucci 1949: pl. 5, represents the Eighty-four Mahāsiddha; the other, Tucci 1949: pl. 40, 41, Milarepa. Their identification will be corrected in David Jackson's forthcoming book on the art of the Drigung School, the Mahāsiddha painting in my contribution to this book (Luczanits forthcoming).

condition of the temple is much worse and most of the walls also contain several layers of overpainting (see fig. 104).

Almost nothing is left of the main wall, which once featured a large Buddha Śākyamuni flanked by his chief disciples in the centre (see fig. 109). It is likely that the Sixteen Arhats were painted around them in the lower half of the wall, and additional Buddhas filled the remaining wall space at the top and along the sides. The left wall is dedicated to Buddha Amitābha and his pure land Sukhāvātī (see fig. 107). This wall is fairly well readable and both, the central Buddha and the beings reborn on lotuses in his realm are clearly recognisable. On the right wall, a large central Thousand-armed Avalokiteśvara is flanked by the Bodhisattvas Mañjuśrī and Vajrapāṇi, forming a triad referred to as Protectors of the Three Families (see fig. 106). These are the main Bodhisattvas of the Buddha-, lotus- and vajra-family, who counter the three poisons that keep sentient beings clinging to the cycle of rebirth. Along the edges some of the Five Buddhas are still recognisable, the best preserved of them being the orange Vairocana seated on a lion throne in the upper right corner. Here Vairocana assumes the western position, as he has changed place with Buddha Amitābha, to whose family the central Bodhisattva Avalokiteśvara belongs. Between the Buddhas are offering goddesses and there may have been protectors at the bottom, completing the mandala assembly. The entrance wall certainly suffered the most of the entire building, and its paintings of protective deities as visible today do not belong to the original phase of this building (see fig. 108).

The original quality of these paintings can today only be judged from some of the preserved fragments. Particularly telling is a detail of the hungry ghost Sūcimukha kneeling at the feet of Avalokiteśvara and raising his hands to receive nectar (fig. 29). To his side the background is covered with a finely drawn lotus scroll pattern that suggests how good the original quality of the paintings must have been. Noteworthy is also the outlining of the main features through a shadow line following the contours, as perceivable along the Bodhisattva's scarf and around Sūcimukha.

In this temple too, there are some fragmentary remains of painted ceiling boards (see fig. 105), but given their distribution and location today it is not even sure if they are original to this temple or were integrated at a later stage from one of the other monuments. Judging from the motives and quality of the paintings on these panels they range from the earliest monuments in the complex to the Guge period, the latter, featuring more extensive themes which span the entire space between pillars, are only preserved in very few fragments.

Through its iconography, the White Temple emphasises those Buddhas and deities with direct influence on the present day. Together with the Sixteen Arhats Śākyamuni represents the continuity of the Buddhist teaching on earth. The wish to be reborn in Sukhāvātī, in the paradise created by the Buddha Amitābha, is an intermediate goal for Buddhist practitioners, and the compassionate Thousand-armed Avalokiteśvara is evoked for immediate help in the present life, as does the hungry ghost Sūcimukha (fig. 29).

The Guge period paintings at Nako are of considerable historical importance not only for the Drigung School, but also for their unique and sophisticated compositions. Whether it is the programme of the Gyaphagpa, the rendering of Milarepa with his repeated depictions in the Translator's Temple, or the composition of the Thousand-armed Avalokiteśvara in the White Temple, each temple preserves an unusual or even unique element of that period.

MORE RECENT CHANGES

Today the White Temple is also called the Temple of Purgyal, as it is used for services to the deity of the Purgyal Mountain just behind Nako, which dominates the region. The only expression of his presence in the temple is the brick altar placed in the centre of the main wall (see fig. 109). It is unclear since when this temple has been used in this way, but the temple's conversion into a place of worship for the local mountain deity testifies for the loss of the monastic community at Nako that must have taken place sometime after the Guge period.

While in many places throughout the Western Himalayas there is no further development, at Nako Buddhist patronage continued through the construction of two Prayer-wheel Temples (Mani Lhakhang). Of similar size, composition and structure, in their origin the two temples must be of similar age. Both have a prayer wheel in the centre flanked by two sculptures. The building which was still preserved in its original state in 2006 contains images of Śākyamuni and Avalokiteśvara as well as blackened murals documenting Nako's new affiliation with the Drukpa Kagyu (*'Brug pa bka' brgyud*) School. The second temple houses images of Ṣaḍakṣara Lokeśvara and Padmasambhava, which have been repainted in garish colours in recent years. Even its oldest paintings differ stylistically from the other temple, but my documentation is insufficient to attempt a description of their programme or a historical attribution of the oldest layer. They are merely mentioned here to set the more recent repairs to the temples of the monastic complex into context.

In the Translator's Temple two main areas are most relevant in this regard, that above the sculpture of Prajñāpāramitā and the entry wall. Only a very small section of its original substance is preserved in the entry wall (see figs 258 and 259), and it is thus quite possible that it once collapsed almost entirely. In addition, its paintings are clearly of different, but not too distant, periods and possibly even affiliation. As in the much earlier Upper Temple, the Four Great Kings are shown directly above the door. These paintings may not be the oldest on the wall, the different layers of which cannot be sorted out without a major study. In the area above the kings we have both the Drigung-specific protectress Achi with a retinue of four goddesses (as in the Gyaphagpa) and Tashi Tsheringma (*bKra shis tshe ring ma*) together with her four sisters (*Tshe ring mched lnga*), who are also represented in the Guge style paintings of the apse. In this case Achi and her retinue are represented larger and ride in front of the other group, which may or may not be accidental, but there is no further hint for a Drigung affiliation on this wall. Above the five sisters is the lion-headed goddess Siṃhamukhā, a deity whose worship springs from Padmasambhava who joins her in the painting. The painting of Milarepa to the right of Padmasambhava is clearly of later origin. In the top left corner is a very crudely painted Cakrasaṃvara embracing his consort (see fig. 126 in Kerin's contribution) and between this couple and the Achi group are depicted the Drukpa scholar Taktsang Repa (*sTags tshang ras pa*) and the snake-bodied protector Rahula. Parallel to the large Cakrasaṃvara a form of Mahākāla in the top right corner is only fragmentarily preserved. The crudest paintings on the wall are the two large protectors underneath those described earlier and, flanking the door, the blue Vajrapāṇi to the left of the door and the red Hayagrīva(?), the main protectors of the vajra and lotus families.

With Achi and Taktsang Repa we have both the Drigung and Drukpa School represented in this painting, the latter certainly in a much less prominent position. As such we can read this wall as signifying the gradual change of affiliation of the Nako complex.

The paintings above the sculpture of Prajñāpāramitā, in an area originally most probably

covered with rows of Buddhas, also belongs to this phase of repainting. Today we find Padmasambhava together with his eight manifestations. The absence of specific themes related to the Nyingma (*rNying ma*) School outside the temple dedicated to Padmasambhava and this rather recent depiction is one of the more surprising facts of this analysis of the Nako temples. Elsewhere the Drigungpa are well known for their integration of specific Nyingma themes in their practices and art, but there is no hint for this at Nako, and even in the Padmasambhava Temple, themes that are obviously related to the treasure-text literature (*gter ma*) could not be identified. At Nako the further promotion of such themes appears to be related with the arrival of the Drukpa School. The poorly preserved entry wall of the White Temple (see fig. 108) closely relates to that of the Translator's Temple. Again, the Four Great Kings are shown above the door, Cakrasaṃvara and Four-armed Mahākāla occupy the top corners and Vajrapāṇi and Hayagrīva the door. Now the protectresses are only represented by Tashi Tsheringma, who occupies the centre above the kings.

BOTTOM LINE

The sculptures and paintings preserved in the temples of Nako reveal the past of the complex. They document several historical phases, changes in school affiliation and numerous repairs. Given the extremely rich early phase and a strong Drigung School component, it can be assumed that during those historical periods Nako had housed a larger permanent monastic community which later gradually declined. Even before the last century, the temples document a struggle to maintain the rich heritage through numerous phases of restoration.

In the last two decades alterations to the complex escalated further, in part triggered by the diverse visits of high Tibetan teachers, including the Dalai Lama. Fortunately, most of these changes affected the exterior surroundings of the temples and not their valuable interiors, which have undergone conservation treatment as part of the project celebrated with this publication.

Of course, this survey does not do justice to complex history and the doctrinal changes in evidence in the decoration of the Nako temples. Grasping these would require the dedicated study of each of the monuments along with research *in situ* and detailed documentation following cleaning and consolidation undertaken. More than any other place in the region, the Nako temples preserve phases of the history of the region otherwise highly obscure or not extant at all. Thus they are worth investigation beyond the parameters of this volume.



1.2. Nako Village

Marie Gruber

SNOWY ABODE OF THE GODS

The natural and cultural landscape of Nako is characterised by its spectacular setting on the southwest slopes of the Himalayan mountain massif. The Himalayas, “snowy abode of the gods”, form a gigantic and rugged rock panorama around the village settlement (fig. 30).

Nako lies at a remote 3,662 m in Hangrang (Sanan and Swadi 2002: 139), approximately 1,000 m above the Spiti Valley, not far from its confluence with the Sutlej River. Originating from a spring close to Mount Kailash in China, the Sutlej enters Indian territory not far from Nako passing the Shipki La. From here the Sutlej runs southwest towards Pakistan, where it flows into the Indus, which also has its source at Mount Kailash.

At 31° 53' 00" northern latitude and 78° 37' 39" eastern longitude (Google Maps 2012), Nako lies in the Indian part of the Himalayas, in the Kinnaur District of the North Indian state Himachal Pradesh. This is 10 km from the Chinese border and the Tibetan Autonomous Region (TAR). The village can be reached via the National Highway 22, following the Hindustan Tibet Road¹ that connects Ambala in Haryana and Khab close to Shipki La (Maps of India 2010). Due to its vicinity to the People's Republic of China, Nako is situated in a “Foreigners Protected Area” for which non-Indian residents need an “Inner-Line Permit” to stay a maximum of 14 days.

Nako is situated in a highly seismic zone. Earthquakes result from active plate tectonic processes that, by subduction and collision of the Indian and Eurasian plates, continually form the mountains of the Himalayan massif. The Himalayas, highest fold mountains on earth, are among the younger high mountains and are rich in sediments and metamorphic rocks. In 1975 the last severe earthquake was recorded in the Spiti area, leading to damage in the Nako village structures and the temple buildings of the Nako Gompa (Klimburg-Salter 2003: 42).

The high mountains of the Himalayas bring cold and arid climate conditions to Nako. Acting as a climate barrier, the Himalayas deflect the arctic north winds to move south and at the same time largely shield the area from humid southern monsoon winds blowing from the Indian subcontinent. However, this effect has been variable. Over the last years a steady increase of precipitation has been generally noted in the village.²

THE VILLAGE SETTLEMENT

Nestled in a northeast-facing mountain slope on a slight elevation above the Lake Nako, the village settlement is surrounded by terraced fields which reach up the mountainside. Areas planted with trees, shrubs and grass are largely used for agricultural purposes. Thanks to ir-

Fig. 30: Nako Village.

1 Leading from Kalka, 260 km away from New Delhi, to the Shipki La, “from the plains of India, across the Himalaya, into the mystery shrouded land of Tibet.” (Sanan and Swadi 2002: 175).

2 Sikka and Chaudhry (2009), as well as Draganits (2000: 4) mention raised figures in precipitation and micro-climatic changes in the region compared to 1900 respectively the end of the 19th century.



Fig. 31: The Nako village core.



Fig. 32: New settlements at the edge of the village.

rigation by streams which originate at the imposing nearby Reo Purgyal mountain (6,816 m) (Sanan and Swadi 2002: 140), numerous lakes as well as man-made canals, the village enjoys a fair amount of vegetation despite its high altitude.

The village settlement consists of a historic village core only accessible by footpaths. There are traditional dwellings, farm buildings, communal and religious structures that were, and still are, built in the vernacular stone/earth/wood building techniques (fig. 31); to the west is the Nako Gompa. Three free-standing village temples were built at Lake Nako and on the northern hill above the village, the Yangon Gompa, with a row of stupas.

Since the end of the 20th century new areas of settlement have sprung up at the edge of the village along the vehicle-accessible streets and the large village square in which the entrance to the Nako Gompa is located. There are community buildings, a museum, schools, a hospital, modern dwellings, “residences” for the Dalai Lama and Buddhist dignitaries, a new temple, hotels, restaurants and shops and on the way to Malling village there is a helicopter landing pad (fig. 32).

The c. 610 inhabitants of the village³ speak a Bhoti dialect which is part of the Tibetan-Himalayan language family, as well as Hindi and, in a few cases, English. The village (“Gram”) Panchayat, the “Council of Five”, is administered by an elected chairman, the Gram Pardhan (until 2010 a position held by a woman, as called for by a quota).⁴ A Block Representative is the representative in the local rural administrative unit of the district which in turn is subordinate to the Gram Panchayat (in this case, the town of Poo5). The village is, independent of Indian administration, organised through the offices of numerous committees, including the “Nako Women’s Association”, the “Nako Youth Club”, the “Nako Hotel Committee”, the “Nako Gompa Management Committee” and the “Hangrang Organization” (Gruber 2009).

3 Nako-Malling Panchayat records 2013.

4 Panchayati Raj Department. Govt. of Himachal Pradesh. 2011. [accessed 12 February 2011]. Available at: <<http://hppanchayat.nic.in/welcome.html>>.

5 Rural Development Department. Himachal Pradesh. 2011. [accessed 21 February 2011]. Available at: <<http://hprural.nic.in/>>.

RECENT DEVELOPMENTS

The village structures typical of the region were, until recently, shaped by the restrictions imposed by the high mountainous conditions. Recent opening and general modernisation, have, however, brought consequences and overcame former necessities.

Previously, the natural restrictions and scarcity of economically useful land meant that the division of property within generations of families was to be avoided. Fraternal polyandry, a form of marriage in which multiple brothers of a family jointly married one woman, was widespread in Nako as in Tibet and parts of India, though by now it has been largely superseded by monogamy (Lamprecht and Mayer-Hohdahl 2008).

Today land ownership and farming no longer represent the only economic bases as “modern” concepts of living and economics have gained acceptance. The growth of infrastructure and technological developments, improved educational and job possibilities have established new, western-influenced patterns of life in Nako. At the same time, migration and tourism were stimulated by the above mentioned changes. By now, tourism represents an important additional source of income for the local inhabitants. Since the beginning of the 21st century it has fuelled a significant economic upturn for the village. Changes in the socio-economic structures have engendered a need for new construction or renovations, with increased implementation of modern building technologies as a direct consequence (Neumayer 2009: 14–7).⁶



Fig. 33: The 2007 Dalai Lama event.

6 The Dalai Lama visit in 2007 also contributed to the increased building activities.

The Tibetan-Buddhist faith is the cultural factor which determines all aspects of life in Nako. Typically for “eastern” cultural circles, religiosity and modern life do not present a contradiction in terms unlike in the “western” cultural world. As Dhar postulates, there are “religious and psychological aspects vital in the Asian, and specifically in the living Mahāyāna Buddhist, context” (Dhar 2006: 155). Through the auspices of the 14th Dalai Lama, Tenzin Gyatso, the most supreme Tulku of the Gelug School, Buddhism is very present and is experienced as part of modern, everyday life.⁷

This shaping stamp of Buddhism was clearly perceivable as the guiding force behind everyday life in Nako in connection with the visit of His Holiness the 14th Dalai Lama Tenzin Gyatso in the summer of 2007 (fig. 33). The momentous event was facilitated with the efforts of the village community, the Gram Pardhan Chodon Tsering, and particularly the aegis of the specially-established Hangrang Organization and the Nako Youth Club, along with the Institute of Conservation in cooperation with the National Research Laboratory for Conservation of Cultural Property Lucknow (NRLC). From August 21 to 26 2007, extended workshops and teachings, preliminary teachings on the “Thirty-seven Practices of a Bodhisattva” (*rGyal sras lag len so bdun ma*) and Kamalaśīla’s “Middle Stages of Meditation” (*sGom rim bar ba*), the re-consecration of the Nako Gompa temples, the international seminar “Himalayan Buddhist Culture. Problems and Possibilities” and the opening of the Nako Museum took place.⁸

THE NAKO GOMPA

The Tibetan-Buddhist monastery complex sits west of the village on a plateau sloping down towards Lake Nako to the southeast. From the east, the twin peaks Reo and Leo Purgyal (6,791 m) (Sanan and Swadi 2002: 140) tower over the complex, which is oriented along a southeast-northwest axis. Going in the ritually-proscribed clockwise direction, a path encompasses the

c. 40 x 40 m compound which is partially enclosed by a wall. The entrance is at Nako’s village square, which was newly laid out in 2007 (Krist 2007: 3). It opens out as an arena in the centre of the impressive mountain panorama in front of the valley of the Spiti River. A gate set into the monastery wall is guarded by a covered double stupa (fig. 34).

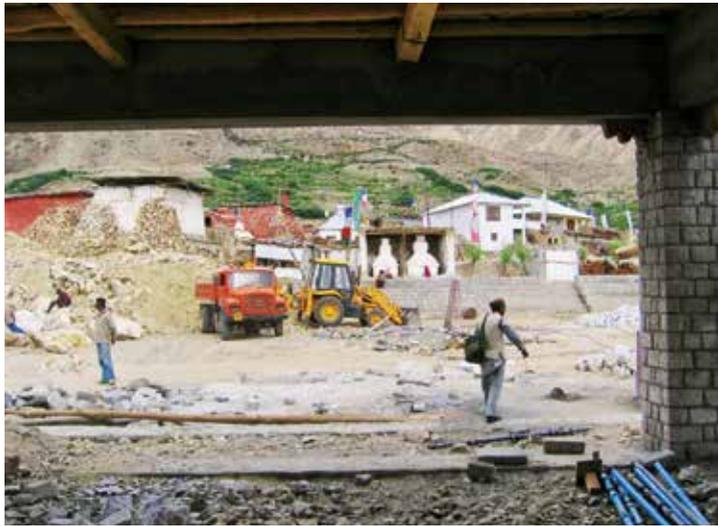


Fig. 34: Nako village square under construction.

When entering, an open L-shaped courtyard extends from the entry at the southwest. Four free-standing temple buildings which are arranged in pairs opposite each other around the courtyard form the nucleus of the historically grown grouping (fig. 35) which was last been architecturally altered in 2007. The construction of the earthen temple structures has been dated to the 11th/12th century (Klimburg-Salter et al. 2007: 8).⁹

Among the most significant of the buildings, the Karchung Lhakang (*dKar chung lha khang*) or White Temple dedicated to

7 Cf. His Holiness the 14th Dalai Lama. The Office of His Holiness the Dalai Lama. 2011. [accessed 9 July 2011]. Available at: <<http://www.dalailama.com/>>.

8 Since 2008 there have been teachings conducted by Buddhist dignitaries every August to commemorate the Dalai Lama event (Tenzin Taklha, message to author, 24 February 2011).

9 “The four historically significant temples (...) might have been constructed in the same period (from the 11th to 12th century). However, precise dates have yet to be established.” (Klimburg-Salter et al. 2007: 8)



Fig. 35: The Gompa from the courtyard.

the local protective deity Purgyal is situated to the left of the monastery entrance with a wide forecourt. Next to this, also with its entrance in the southeast is the Lotsawa Lhakhang (*Lo tsa ba lha khang*) or Translator's Temple, the only building of the complex which is sited slightly below the level of the courtyard.

Prominently raised opposite this large, main temple is the second-largest temple of the monastery, the Lhakhang Gongma (*Lha khang gong ma*) or Upper Temple with its entryway in the northwest. Adjoining the temple and also raised as well as behind a stupa is the Gyaphagpa Lhakhang (*rGya 'phags pa lha khang*), also called the "Gesar Temple" (Müller 2008: 15; Klimburg-Salter 2003: 43).¹⁰

A newer temple building behind the Gyaphagpa Lhakhang, which is not accessible from the courtyard, and a new assembly hall between the two large temples facing the courtyard are also part of the complex. The assembly hall with accommodation for monks was erected concurrently with the rebuilding of the village square in preparation for the 2007 visit of the Dalai Lama. Two outbuildings directly behind the monastery entrance but in front of the Karchung Lhakhang and below the Gyaphagpa Lhakhang were removed in order to create the large open spaces seen today in the courtyard.¹¹ A few relatively minor alterations had been made for an earlier visit by the Dalai Lama in 1996 (Klimburg-Salter et al. 2007: 9).

The Gompa is encompassed by the new path (Neumayer 2009: 33); di Mattia describes an earlier such *circumambulatorium* path (Di Mattia 1997: 192). Stupas and remains of buildings can be found beyond the current path to the west and north. Müller comments on the ruins of monastic cells described by Francke and Handa (Müller 2008: 14), which testify the possibility of an originally larger monastery.

¹⁰ Kerin (2008: 49f.) discusses that the temple is wrongly attributed to Gesar.

¹¹ See plan 1 in Klimburg-Salter 2003: 40 and fig. 73 in Luczanits 2004: 78.



Fig. 36: Temple interiors.

SIGNIFICANCE OF THE TEMPLE BUILDINGS

Oral tradition in the village attributes the Nako Gumpa to Rinchen Zangpo (Rin chen bzang po, 958–1055), who, according to Petech can be considered the “foremost personality in the story of the Western Tibetan rebirth of Buddhism” (Petech 1997: 234). Nako’s main temple, the Lotsawa Lhakhang, is named after Rinchen Zangpo, the “Great Translator” (*lotsawa*) (Müller 2008: 15; Klimburg-Salter 2003: 43; Luczanits 2003b: 47) and architect of the legendary 108 Lhakhang (Petech 1997: 234). This “rebirth” or “Renaissance” of Buddhism which developed from the 10th century in the Western Tibetan Kingdom of Purang-Guge and which led to a Second Great Buddhist Diffusion was largely the work of Rinchen Zangpo and his patron, the royal lama Yeshe Ö (Ye shes ’od).

Klimburg-Salter cites a local prince as the patron of the Nako temples, in contrast to the royal patronage of the neighbouring monastery in Tabo. Depictions of the patron are to be found in paintings on the west wall of the Lotsawa Lhakhang (Klimburg-Salter 2003: 39). Luczanits considers the portrayal of the patron relevant to dating the largest temple of the Nako complex, as is the fragmentary but to date undecipherable inscription in the apse (Luczanits 2004: 84).

The ensemble of the four temples is in the West Tibetan architectural style (Klimburg-Salter 2003: 41). It fits into the “early” phase of such complexes (Khosla 1979: 29–36), a period extending from the 10th to the 14th century. Stylistically formative for this “early” phase, the architectural influences from India and Kashmir are visible in the floor plan and typology, in the sculptural elements and the artistic decoration of the interior, though not in the actual construction (Mortari Vergari Caffarelli 1996: 816). The massive monumental, cubic earth edifices with internal wooden support and roof constructions are, structurally speaking, “standard ‘modules’ of Tibetan buildings” (Mortari Vergari Caffarelli 1996: 814) applying local construction materials and techniques.

However, it is the interior decorations which make the Nako temple ensemble so artistically and cultural-historically significant. They include wall and ceiling paintings and polychrome clay sculptures from the period of the temple’s foundation, as well as various later decorative phases. The wall paintings in the two larger temples are mostly from the 11th/12th century (Klimburg-Salter 2007b: 33) and are described by Klimburg-Salter as “the earliest testimony to a fully-developed Vajrayāna iconography in India” (2003: 39). She attributes the mandala depictions to artists of the Kashmiri-influenced Indo-Tibetan School which can be traced to the neighbouring monastery in Tabo, as well as to 11th–12th century manuscripts from Tabo and Poo (fig. 36).

Luczanits claims that the two largest Nako temples are “an invaluable resource for the study and understanding of the early development of Tibetan Buddhism and Tibetan culture in general” (2003b: 53). Of further importance in this connection are the sculptural figures of female deities, especially the Prajñāpāramitā (Müller 2008), which are part of the interior decorative scheme of the Lotsawa Lhakhang and Lhakhang Gongma (Luczanits 2004: 79–88).

The temple ensemble owes its significance and historic value not only to these first 12th-century wall paintings, but also to those of later decorative periods. Those have till date received less scholarly attention. Though as a complex, multifaceted and historically organic testimony to Buddhist cultural heritage, it enables a perception of history in all its states of alteration and historicism. Kerin defines this “to analyze patterns of political, religious and aesthetic change over the centuries” (2008: 45).

MAINTENANCE OF THE *MONASTERIUM*

According to Tucci, the intrinsic meaning of the term “Gompa” (*dgon pa*) is not a place to convene (lat. *conventus*) but a place of retreat, a “*monasterium*”, a place for meditation (Tucci and Chandra 1998: 10) for just a few monks who would inhabit the monastery area.

With reference to Francke and Klimburg-Salter, Müller discusses the significance of the Kagyu (*bKa’ rgyud*) School for Western Tibet in general, and for Nako in particular; Nako was supposed to have been the site of an important Drukpa (*Brug pa*) monastery, a Kagyu tradition (Müller 2008: 15). Kerin investigates the influence of the Drigungpas (*Bri gung pa*) represented in the Gyaphagpa Lhakhang’s later iconographic scheme around the 15th/16th century (Kerin 2008). As a “*monasterium*” Nako’s temple complex seems to have been abandoned

relatively early by its Buddhist monastic community (*samgha*) (Klimburg-Salter 2003: 42). The Drukpa Kagyupas have only recently returned to live permanently in the complex following the most recent renovation for the Dalai Lama's visit in 2007. Two lamas from the Drukpa Kagyu Monastery in Bhunter in the Kullu District of Himachal Pradesh (about 145 km distant from Nako as the crow flies)¹² now spend every two years in the Nako Gompa. The ven. Somang Rinpoche, a Tulku lama born in Nako and also from Bhunter, owns the Nako Monastery.¹³

Until 2007 the village inhabitants had long been responsible for the Nako Gompa, together with the village lamas who were appointed by the community (Klimburg-Salter 2003: 42). In 1996 the Nako Gompa Management Committee was established. It ensured that a lay community was to use, worship and maintain the structural fabric of the temple buildings up to very recently. Spiritual and material worship and care by the village community meant that the tradition of the buildings could be sustained as Buddhist cultural sites in daily use. Continuous visitation to the temple, the practice of rite and worship (*puja*), were integrated into the maintenance of the complex just as much as the implementation of protective measures, such as provisional supports in the interior and buttresses for the exterior walls of the temples, roof repairs and the abovementioned structural adaptations relevant to the two Nako visits by the Dalai Lama (Neumayer 2009).

However, the 1975 earthquake catastrophe followed by severe winters and the felt beginning of climatic changes¹⁴ led to rapidly progressing damage to the temple buildings.¹⁵ For this situation the protective measures described above proved not sufficient (Lamprecht and Mayer-Hohdahl 2008). The village community turned towards the public sector; the replacement of the Lhakhang Gongma roof in 1998 resulted from the first international appeal and assistance for Nako (Klimburg-Salter 2003: 42). The establishment of the multinational "Nako Preservation Project" (NPP, later the NRPP) in 2002 and the ensuing "Nako Project" of the University of Applied Arts, Vienna, provided a scientific basis for research and long-term preservation of the Nako Gompa. Upon these the securing of the architectural structure and the conservation of the interior decorations of the two larger temples could be guaranteed.

THE VILLAGE CULTURE AND ITS HERITAGE

"This all belongs to Tibet", said the 14th Dalai Lama Tenzin Gyatso during his 2007 sojourn in Nako, as he pointed to the monastic complex and beyond to the direction of China (Lamprecht and Mayer-Hohdahl 2008). The Tibetan cultural area, covering c. two and a half million square kilometres, and with its Buddhist character (The Official Website of the Central Tibetan Administration 2012), of which Nako is a part, is currently spread over several countries, predominantly in the People's Republic of China, as well as the border areas in Nepal, Bhutan and India.¹⁶

12 The monastery in the Kullu Valley is a replica of Dechen Choekhor in Gongkar in Chinese Tibet, to maintain the lineage: "Today, as the survival of the Tibetan culture and the religion grows ever more uncertain, the reconstruction of Dechen Choekhor Monastery is of dire importance". Cf. Drukpa-choegon. 2010. About Dechen Choekhor. [accessed 31 October 2010]. Available at: <<http://www.drukpa-choegon.info/home.aspx>> .

13 Ven. Somang Rinpoche, message to author, January 2010.

14 See note 2.

15 Historic photographs document that extensive damage was visible at the temples already at the beginning of the 20th century. Tatjana Bayerová, message to author, June 2010. See plates XII a and XIII a, b in: Francke 1992^{III}.

16 Until March 2011 the Dalai Lama was head of the Tibetan parliament-in-exile, the Central Tibetan

The Dalai Lama continuously calls for the rights of Tibetans in China to preserve their own, very different culture (Gyatso 1998: 135). The parameters of a human "Recht auf Kultur", the right to culture, can be described through the perspective of the term "culture". Culture is defined as the "totality of the facilities, actions, processes and symbolic forms which with the aid of regular techniques transform 'available nature' into an environment for living, maintain and improve it, develop and implement the necessary skills (cultural techniques, knowledge), anchor the governing values in special rites ('*cultus*') and in this respect endow social orders and systems of communicative symbols which provide permanence to communal entities" (transl. from Böhme et al. 2002: 104 f.). In the latter aspect, which means the definition of a social as well as a symbolic system of values in rite and "*cultus*", religion can be understood as a factor which in Tibet is breathed and lived with Buddhism (Brück 2008: 43 f.).

The existing Tibetan-Buddhist cultural heritage has been passed down in areas over-proportionally located in the Himalayan regions outside of China—considering the destruction by the Chinese Cultural Revolution and its aftermath. "Cultural heritage" is defined by the United Nations Educational, Scientific and Cultural Organization (UNESCO) as monuments,



Fig. 37: Village dancing.



Fig. 38: Inhabitants of Nako.

Administration of His Holiness the Dalai Lama (CTA) in Dharamsala, Himachal Pradesh (The Official Website of the Central Tibetan Administration. 2012. [accessed 25 March 2012]. Available at: < <http://tibet.net/>>).

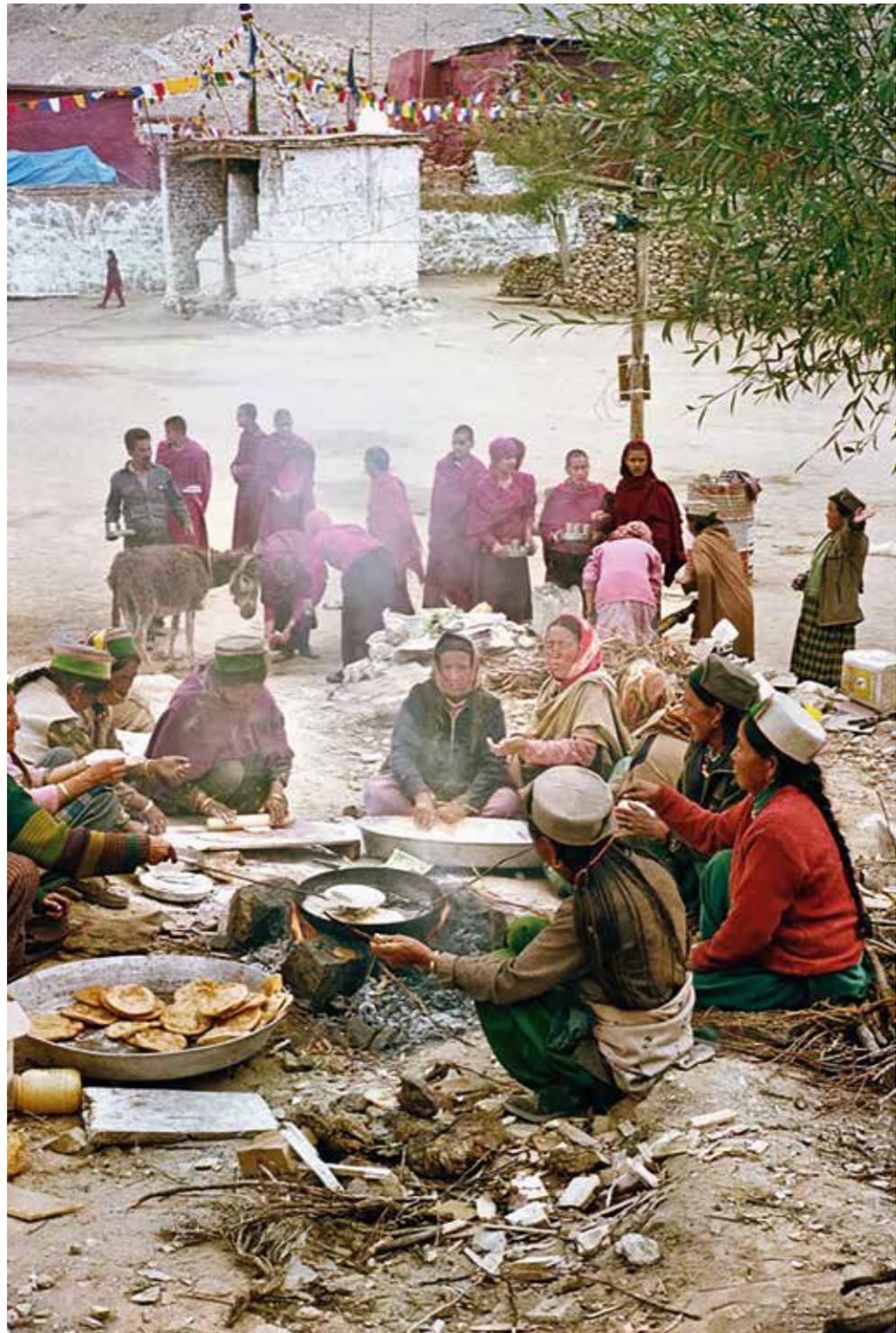


Fig. 39: Nako village community.

ensembles and sites, which are of outstanding universal value from the point of view of art, history or science (Deutsche UNESCO-Kommission et al. 2009: 28). Intangible Cultural Heritage or Living Cultural Heritage are generally taken to mean “the practices, representations, expressions, knowledge, skills—as well as the instruments, objects, artefacts and cultural spaces associated therewith—that communities, groups and, in some cases, individuals rec-

ognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity" (UNESCO Cultural Sector 2011).

The survival of the legacy of Tibetan and Buddhist cultural heritage in the incarnation of the Nako temple buildings and vernacular village structures is probably not only a consequence of its geopolitical location in India. The isolation in the Himalayan Mountains has surely contributed to the manner in which the village's everyday life has been developed and bequeathed up to recent times. It evinces, despite continuous modernisation, a vibrant continuity and tangible authenticity. One can speculate about whether the Nako Gompa's abandonment as a monastery could also be explained by the extreme conditions of the high mountainous region. The monastery's disuse by a religious order certainly led to the village community assuming its preservation, including the spiritual and material tasks. This responsibility is understandable given the Gompa's importance as the "heart" (Klimburg-Salter 2003: 43), as the spiritual anchor for the village. The temples are the sites of a lived, everyday faith, a point which was declared as one of the central features of the monuments' preservation "Masterplan" formulated by Bacher and Krist (Krist et al. 2010: 91 f.).



1.3. Architectural Palimpsests: Exploring Matters of Production, Inhabitation and Perception in the Vernacular Architecture of Nako

Natasha Kimmet

INTRODUCTION

“The definition and interpretation of artefacts directly affects their treatment”
(Tran 2011: 12)

A small turquoise lake and stunning 360-degree mountain panorama frame the village of Nako¹ in the Upper Kinnaur district of Himachal Pradesh (India), creating a unique aesthetic. This setting, combined with the extreme altitude and challenges of access, gives the impression of a sacred place “at the ends of the earth with nothing beyond” (Francke 1914¹: 32). For the inhabitants of the region, the sacredness of the lake, mountains and temples centres Nako within a much wider trans-Himalayan sacred landscape that extends across the ancient pilgrimage route² from Kailash and Lake Manasarovar in the east to Uddiyana in the west.³ Nako is among a handful of high altitude Western Himalayan villages that have retained their historic architectural layers into the present day, offering an invaluable record of settlement growth in relation to cultural, political and socio-economic change. While the centuries old stone and mud dwellings in these villages have appealed to the historical imagination of scholars, tourists and locals alike for their picturesque, “authentic Himalayan” character, they have been largely neglected in scholarly work in favour of the more substantial religious monuments. This is the case in Nako, where the richly ornamented 11th/12th-century Buddhist

Fig. 40: Traditional buildings in Nako village.

1 Nako is the common form of the village name used in the official government revenue records of Himachal Pradesh, as well as in secondary literature and on maps. However, several variants of the name exist. The spelling *Na go* is found locally in an inscription in the temple dedicated to Padmasambhava (Guru Lhakhang) and in a donor inscription on a *mani* wall above the village, both of which have been analysed by Kurt Tropper (2009, 2010a). It is popularly believed that Nako was derived from *gNas sgo* (“Door to the sacred place”). This variant is found both in the local oral tradition (Negi and Negi 2007: 85–6) and inscribed on a stone tablet on a stupa (*mchod rten*) near the above-mentioned *mani* wall (Tropper 2010a: 161, n. 144). According to Negi and Negi (2007: 84), the earliest form of the village name was *Na’o*, as recorded in a local song about the important household temple (*mchod khang*) of the Kharwa family, which is attributed to Rin chen bzang po. Present-day local pronunciation conforms to this variant (also mentioned by Saxena 2011: 185).

2 This pilgrimage route has been known since at least the 13th century, according to the records of the ‘Brug pa bka’ brgyud adept, O rgyan pa (1229/30–1309), who was preceded on this route by rGod tshang pa (b. 1213) (Klimburg-Salter 2003: 39–40; Tucci 1971: 372).

3 The local oral tradition includes laudatory descriptions of the village that emphasise its beauty in terms of the interrelated built and natural environment, particularly through reference to the three sacred sites of mountain peak, turquoise lake and village temples. For example, see Negi and Negi 2007: 96. There are further narratives that utilise geographic features to connect Nako to distant Tibetan holy sites. For instance, see Francke 1914¹: 37.

temple complex (sacred compound, *chos 'khor*)⁴ has been the focus of extensive research and preservation efforts, while the domestic buildings have received little more than admiring remarks.

Defining architectural styles and chronologies in the context of domestic buildings proves especially challenging because, by their very nature as inhabited spaces, these buildings are susceptible to frequent change. Yet it is precisely because domestic buildings reflect the everyday, embodied practices of their users that they constitute important documents of the aesthetic values and social history of a village; houses display the cumulative layers of their use, adaptation and decay. Moreover, recent changes in these villages have had a particularly visible effect on local domestic architecture traditions and, as such, have considerable implications for the future of how material cultural heritage and identity are interpreted and handled.⁵ Therefore, in an effort to better understand these changes in the material and social dimensions of architecture, this paper presents an initial survey of residential architecture in Nako.

Nako offers a provocative case study because, over the past several decades, attitudes about architecture and the availability of resources in the village have shifted, in part as a result of changes to the village's economic basis, the increase in tourism with the relaxation of foreign travel restrictions following the Tabo Monastery millennial celebration in 1996, and the attention of scholarship and preservation efforts in the sacred compound temples. The Nako people's revived interest in their local culture and religion has also impacted the built environment both in terms of new structures and ideas of how their unique local architectural traditions should be defined. In light of these circumstances, this paper postulates that in order to properly address preservation and development issues, it is first essential to clarify what is considered valuable and relevant about local architecture (according to the inhabitants) within its historical and contemporary milieu.

This study utilises the concept of architectural palimpsest (historical layering and reuse) to explore the growth and development of domestic architecture in Nako. By looking broadly at the village architecture, the paper outlines a "history" of the domestic buildings. This then provides a crucial foundation for clarifying the descriptive terminologies and visual vocabularies used to define and value these building traditions. The study elaborates on three modes of interaction with architecture: production, inhabitation and perception. By considering *dwelling* as both a product and a process, the study asks: how do the processes of production and inhabitation contribute to how dwellings are perceived, and how does perception, in turn, lead to certain definitions or characterisations of architecture? Consequently, what are the implications of the changes taking place in the village's vernacular architecture, as well as in historically relative perceptions of architecture, for the future of Nako's cultural heritage and identity?

To provide a point of departure for addressing these questions, the article first briefly explores the social dimensions of Nako's domestic buildings before introducing the settlement, its geographic setting and its architectural growth. The paper then develops a relative chronology for the evolution of the village's residential architecture based on a typological analysis

4 All Tibetan terms are presented according to the standard Wylie system of transliteration. Terms specific to Nako correspond roughly to the way they are pronounced in the local dialect and are indicated with the letter N.

5 Architectural changes have been assessed primarily through analysis of extensive photographic documentation available in the Western Himalaya Archive Vienna (WHAV) taken between 1989 and 2013 and through the author's own field research (2012, 2013).

of the extant houses from the earliest known foundations (c. 18th or 19th century at the latest) to the present.⁶ Nako's buildings have evolved in response to shifting political and cultural connections with Western Tibet, Lower Kinnaur and the Indian nation state.

Historically, Nako's vernacular architecture has been constructed of stone or mud brick masonry walls with a trabeated timber framework. Unlike the large aristocratic mansions found in other parts of the Tibetan and Himalayan cultural sphere, particularly Central and Western Tibet, Mustang (Nepal) and Ladakh, the dwellings in Nako developed from more humble forms through a gradual agglomeration of overlapping and juxtaposed cubic spaces. Most recently, the buildings have returned to an individuated plan and make increasing use of a variety of imported materials. While the village architecture does not follow a linear evolution, there are certain identifiable patterns and shifts that contribute to understanding what constitutes residential architecture at different periods of time.

Broadly, we can outline five prominent types of domestic buildings in terms of their location in the settlement and physical relationship to other dwellings, materials and construction techniques, ornamentation and spatial functions. These types are:

- Type 1. Individuated two-storey mud brick and stone houses
- Type 2. Agglomerated multi-storey stone houses
- Type 3. Individuated one- and two-storey stone houses
- Type 4. Linear one-storey stone "motel style" houses (or additions)
- Type 5. Large scale, multi-storey reinforced concrete constructed (RCC) houses

The progression of these architectural types indicates a transition to a more homogenous socio-economic structure, shifts in regional influences and access to materials and craftsmen, subjection to different tax codes and building regulations, and the more recent ability to regularly and actively engage with wider social networks. Examination of these types, therefore, enables us to evaluate the broad phases of architectural growth and development in Nako, which are conditioned by and inform us about the village's social history.

DWELLINGS AS SOCIAL STRUCTURES

Frequently, perceptions⁷ of what constitutes a traditional dwelling have been fixed solely on the materiality and facade value of the building, while ignoring its social and functional contexts. Thus in order to assess the stylistic, technical and material aspects of the houses, it is important to consider why, beyond the basic need for shelter, the house is important and what role it plays in the structure of the community. According to Amos Rapoport "houses (...) show most clearly the link between form and life patterns (...) houses also provide the best way of relating the whole system of house, settlement, landscape, and monumental buildings to the way of life" (Rapoport 1969: 10). In Nako, the house serves as the nucleus of social and economic identity and responsibility, as individuals' social responsibilities to the community are

6 While the precise foundation dates are known for a number of the village buildings, an absolute chronology of the domestic architecture is challenging at this stage of the research without recourse to scientific dating methods (dendrochronology, carbon dating). The common practices of reusing and replacing materials to restructure and maintain buildings further complicates the process of dating.

7 Here, I refer primarily to the perspective of scholars and tourists, or rather the people who view the dwellings from the outside but do not inhabit them. The local population has, however, absorbed this mode of discussing architecture and now commonly emphasises the material dimensions of dwellings in relation to their age and value.

based on their identification with a particular household (*grong pa*). Thus, the network of the houses as physical *objects* within the village is further linked through the social and familial ties between households. Each household is further identified with one of three administrative sectors: upper (*stod pa*), middle (*bar chu ba*) and lower (*smad pa*). While, historically, the few lower-caste households in the village were located in the lower sector, the sectors, which are not of ancient origin, are not associated with caste divisions; rather they serve primarily municipal functions, including taxpaying, labour contributions, water distribution and so forth.⁸

A household's construction of a new roof provides a good example of how this social structure imposes order on community and household projects. At least one member from every household is expected to contribute to the labour, with the assistance then being returned when the households who offered labour construct or repair their own roofs. In reality, this system of exchange between households is not always evenly divided. For instance, the traditional system of distributing water access in Nako gives priority to the households that, historically, were the primary landholding estates in the village. These families, known as *thalwa* (*khral pa*), were responsible for paying taxes to the King of Rampur during the Bashahr chiefdom.⁹ The *thuwa*, or non-taxpaying families, once held a lower socio-economic status than the *thalwas*. With changes in the economic structure and the more evenly distributed landholdings of estates, largely as a result of government initiatives under the modern Indian nation state, this socio-economic structure has shifted and the contemporary effectiveness of this traditional system has come into question. One method for householders to demonstrate their elevated social standing is to build a new house. Sometimes the ancestral house is demolished and replaced with a newer structure, but it is more common to construct a new dwelling in another location (within the immediate village fabric or in the agricultural land along the periphery), while simultaneously maintaining the ancestral house for symbolic and functional reasons.

Houses cannot simply be inhabited; they require regular material and spiritual maintenance. Thus, beyond the initial construction of a house and accompanying rituals, the ritual maintenance of a house is another mode of continued production and inhabitation that is necessary to accommodate individuals. This can be understood in terms of the ceremonial life of a house—when it is dressed up for special occasions and ritual functions, when it is filled with daily offerings and signs of wealth (i.e. household altars for Buddhist deities and local gods) and when it is renovated or updated in connection with significant events, which often designates a shift in the family structure or a moment of transition in the family life. This may be as simple as replacing a prayer flag on the auspicious occasion of a visit from a high lama or the process of “dressing” the house with a new fabric ceiling cover and linoleum flooring to celebrate the New Year. This illustrates the interrelationship between the practical mat-

8 Most of the families identify as upper caste Rajputs and inhabit all three sectors. According to Tobdan (2008: 24), the designation “Rajput” first came into use in official documents in the Kinnaur district following Indian Independence. Of the village's present 142 households, only seven are classified as lower caste; this does not include the rising number of non-local wage labourers, who come primarily from Bihar (India) and Nepal (Nako-Malling Panchayat records 2013).

9 The erstwhile princely state of Bashahr took control of Upper Kinnaur in the late 17th century following the Tibet-Ladakh-Mughal war (1679–84), when Tibet ceded Upper Kinnaur to Bashahr in exchange for its support against Ladakh. Prior to this exchange, Upper Kinnaur was under the administration of Tibet and required to pay tribute to the nearby Tashigang Rong Monastery. The region remained subject to the kings of Bashahr until Indian Independence in 1947 (Bajpai 1991: 27–39; Sanan and Swadi 2002: 34–35; Tobdan 2008: 112–14).

ters of functionality (such as cleanliness and warmth) and display (in terms of aesthetics and demonstration of the status of a space and its inhabitants). The ceremonial change could be more complex, involving a complete restructuring of the house. One example of this, which is common in the Himalayan region, is an aspect of the system of primogeniture, when the eldest son inherits the main house (*khang chen*) and the family builds a secondary house (*khang chung*) for the parents and other family members to inhabit. This house remains linked to the main estate in terms of its landholdings and associated social obligations. Several new buildings in Nako are a reflection of this system. Another common cause for large-scale building projects is on the occasion of a marriage in the family. This ceremonial change to the structure of the household not only reflects a change in how the space will be used or who will use it but has also become a social obligation of providing adequate hospitality to guests at the marriage ceremony, as well as maintaining a certain image of social standing on par with one's neighbours. It further affirms the integration of a new individual within the family and community as a whole.

NAKO: SETTLEMENT ORGANISATION

While the origins of Nako are not documented, there are numerous *mani* walls with stone-inscribed mantras, as well as fragmentary inscriptions in several of the village temples, that provide limited information about the village's history.¹⁰ The accounts of several early travellers confirm that the village was well established in its present location by the early 19th century.¹¹ Captain Alexander Gerard described the population as "pretty large" in 1818, while Prince Waldemar of Prussia more specifically identified between 40 and 50 houses in 1846 (Gerard and Lloyd 1841: 294; Waldemar and Kutzner 1857: 310). Unfortunately, the early accounts contain few details about the local houses,¹² and there are no local written sources on the subject. These observations are, however, corroborated by local oral accounts, which tentatively date many of the oldest buildings in Nako to the early 19th century at the latest (based on the number of generations who have inhabited the houses). Presently the village remains relatively small and socially homogenous with 142 households and a population of 610 people (Nako-Malling Panchayat records 2013).

Nako is considered to be a sacred land by its inhabitants, a concept that is evident in the village's organisation and extant architecture. The settlement can be best understood as having developed within defined sacred boundaries and topographical constraints. In addition to

10 Epigraphs in the Guru Lhakhang and stone tablet inscriptions found on *mani* walls across the village territory have been discussed by Tropper (2009, 2010a). Regarding the sacred compound: an edition of a fragmentary inscription in the Translator's Temple (Lotsawa Lhakhang, *Lo tsa ba lha khang*) is included in Luczanits 2004: 300-301, and Melissa Kerin has discussed inscriptions in the Gyaphagpa Lhakhang (*rGya ,phags pa lha khang*) (Kerin 2010).

11 The Moravian missionary A. H. Francke observed the remnants of a former ancient town and fortress on the southern hillside above the lake, which he thought was the original site of the village, a hypothesis that holds consensus amongst the people of Nako but which cannot presently be verified by architectural evidence (Francke 1914: 34). The site, locally known as Lhakhatse, was situated near a water tank and also incorporated a fortress known as Khardong (*mkhar rdzong*, "castle fortress") (Negi and Negi 2007: 83).

12 A sketch by Prince Waldemar, subsequently reproduced and published in lithographic form, gives some indication of the local topography, but, unfortunately, the representations of houses demonstrate too great a degree of artistic license to be of use in understanding the village architecture in the 19th century (Mahlmann et al. 1853: Pl. XXII; confirmed by discussions with local villagers).

the four temples in the sacred compound (11th/12th century) at the northwest of the village, which offer the earliest architectural evidence, several other sacred structures demarcate the distant boundaries of the inhabited space of the village: a gateway stupa at both the distant northern and southern edges, and the Yangon Gompa (c. 13th century, *Yang dgon dgon pa*, attr. Gyalwa Yanggonpa?), located high above the eastern edge of the village surrounded by the terraced agricultural land. According to Francke and local accounts, the former monastic compound was likely located southeast of the sacred compound.¹³ The Guru Lhakhang (c. 14th century, *Gu ru lha khang*),¹⁴ known locally as the Lupon Lhakhang (*sLob dpon lha khang*) or Temple of the Master because it is dedicated to Padmasambhava, is now within the immediate village fabric, situated near the northwest corner of the lake. These three religious establishments—the sacred compound, Yangon Gompa and Guru Lhakhang—constitute the earliest structural parameters of the village. The two Dungyur Lhakhangs (c. 18th century?, *Dung gyur lha khang*)¹⁵ were built later and, as such, were integrated into the inhabited space; they are placed at either end of an early route through the village. While these temples are accessible to everyone in the village, each one is affiliated with a particular household responsible for its regular maintenance and daily offerings. The sacred character of the territory is further emphasised by the presence of numerous touch relics,¹⁶ or stones imprinted with the finger-, hand- or footprints of important religious personages, throughout the landscape.¹⁷ These sacred markers outline passage through the village.

13 At the time of his visit, Francke (1914: 32) noted a number of building ruins in this area (to the southeast of the sacred compound), which he suggested were the former monks' cells. Local accounts tend to agree with Francke's hypothesis about this site, which is now occupied by residential buildings. According to the local oral tradition, there were at least 18 monks in residence in Nako during an earlier period (Negi and Negi 2007: 90).

14 This temple is popularly attributed to Padmasambhava and his spread of Buddhism in the 8th century. Francke suggested that the temple was constructed in the 11th century and that it is contemporary with the Translator's Temple, but there is not sufficient evidence to support this date (Francke 1914: 33). The mural paintings in the Guru Lhakhang have most recently been dated to the 14th century (Klimburg-Salter 2003: 42), which corresponds to the *terminus post quem* of the epigraphs in the temple (Tropper 2010a: 147). However, the temple structure could have originated in an earlier period. One piece of structural evidence in support of an earlier date is "the fan-like ceiling structure...[which] can be compared to that of the roughly 13th century Manjushri Temple at Alchi" (Klimburg-Salter 2003: 42).

15 Based on discussions with Nako villagers, S. Sikka suggests a date of 300 years ago, i.e. the 18th century, for both Dungyur Lhakhangs (Sikka 2004: 72). Regarding the Tibetan spelling of the name, I follow the spelling found in an inscription in a *Dung gyur* temple in the nearby village of Chango, which was previously used by Melissa Kerin (2008: 27). The Chango *Dung gyur* inscription was recorded by Kurt Tropper within the research project "Historical and Religious Inscriptions in mNga' ris (West Tibet, PR China), 2013-16" and is available online: <http://www.univie.ac.at/Tibetan-inscriptions/index.php?option=com_content&view=article&id=102&Itemid=193>. Tucci (1996: 166) uses the variant spelling *sTong rgyud lha khang* in reference to a temple with a large prayer wheel in Tholing, West Tibet.

16 Here, I reuse the term "touch relics" introduced by Deborah Klimburg-Salter in reference to the handprints and footprints of lamas and other sacred figures placed on the verso of thangkas, which symbolically represent the lama or guru and transmit his blessings and spiritual teachings (Klimburg-Salter 2004).

17 These include the fingerprints of a previous incarnation of the Somang Rinpoche on a rock in front of the 9th Somang Rinpoche Rigzin Chödrag's house, as well as the footprints of Padmasambhava and the fingerprints of the local god Purgyal in the Guru Lhakhang, amongst others.

DWELLING TYPOLOGY

The diverse layering of material elements and functions within individual buildings and the entire settlement creates architectural palimpsests. This concept is supported by the fact that, while many of Nako's residential buildings adhere to a specific type (1–5), it is more common for a house—through its inhabitation, repairs and additions—to transition from one type to another or to simultaneously fit multiple types. As previously stated, the chronological progression from dwelling type 1 to type 5 does not represent a strictly linear trajectory; instead these types convey the broad patterns and shifts in the village that are contextualised by cultural and socio-economic change.

Type 1

The oldest section of the settlement is comprised of a cluster of two-storey, individuated houses in the boulder-strewn depression of space just north of the lake and southeast of the site of the former monastic compound (fig. 41). These houses were constructed in a semi-dispersed pattern amidst small agricultural plots and in close proximity to where the ancient pilgrimage and trade route (between Western Tibet and Uddiyana, which is considered to be the homeland of Padmasambhava) once ran past the Guru Lhakhang to the temples of the sacred compound. Thus, the early settlement organisation relates to the primary sources of livelihood: religious institutions, trade and agriculture. These houses are identifiable by the stone foundations and mud brick upper levels, as well as the originally individuated cubic forms and use of bracketed window lintels, which link them to a characteristically Western Tibetan architectural style (which is still typical of the neighbouring district of Spiti). Materially, and in terms of their relative symmetry, these dwellings are most closely related to the village temples, despite significant differences in scale and function.

The historic woodcarving elements found in Nako's earliest houses are of especial significance in identifying unique aspects of material cultural heritage in the village because they form part of a distinct regional tradition, associated with several lower altitude villages in Upper Kinnaur. For instance, some of the finest examples of woodcarving in Nako can be seen incorporated into the only two historic timber balconies that remain intact in the village. Stylistic and typological analysis of pillar capitals (*ka gzhu*, N. *kyishu*)¹⁸ found in these early dwellings further reveals close connections with woodcraft in Poo, Dabling, and Ropa (fig. 42).¹⁹ This can be partially explained by the shared access to carving workshops in Kinnaur, namely those situated in the Ropa and Lippa valleys. Due to the difficulty and expense of procuring wood at such a high altitude, there are a limited number of exceptional examples of woodcarving in Nako. There was never enough demand to support a workshop of highly skilled artisan-craftsmen in Nako itself; thus, while local craftsmen could execute simple designs, finer work was commissioned from the neighbouring valleys where wood was more abundant. The rarity of ornamental woodwork also factors into the common practice of reusing

18 For further discussion of Tibetan pillar components, refer to Tucci 1966: 54, Illustration II (fig. 3).

19 The WHAV contains excellent visual documentation of woodcarving in these villages. An initial typological analysis of Upper Kinnauri pillar capitals in the context of domestic architecture was presented by the author at the 13th Seminar of the International Association for Tibetan Studies (IATS) in a paper titled "Materiality and Ornamentation in Western Himalayan Architecture: An Examination of Historical and Contemporary Vernacular Architecture Traditions in Nako, Upper Kinnaur, India." The subject will be elaborated upon in forthcoming research (Kimmeth forthcoming).



Fig. 41: House Type 1, Charen Das House, northwest facade.

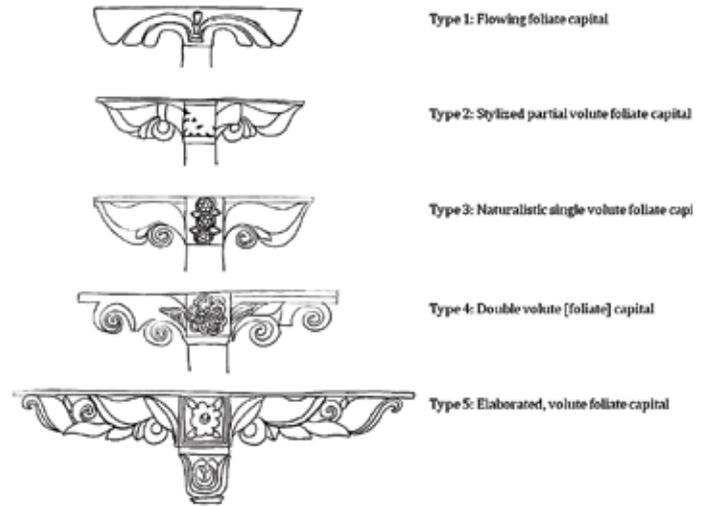


Fig. 42: Upper Kinnaur pillar capital typology, with specific reference to Nako.

wooden elements from earlier buildings, possibly from Nako or other villages in the region, as testified by local accounts.²⁰ This practice complicates efforts to establish a firm architectural chronology, but it demonstrates the layered nature of dwellings through the shifting placement of architectural objects and the local narratives of their reuse, which indicate the status of certain households and former social ties that enabled their acquisition.

The close relationship between form and function in early dwellings illustrates a carefully articulated response to local needs and values. Typically, the early two-storey dwellings adhere to a common tripartite spatial scheme common to the Tibetan and Himalayan cultural sphere with the ground level reserved for animals, the first level for humans and the upper level (or roof) for deities. As such, the ground level of each house was dedicated to fodder storerooms (*rtswa ra*) and livestock stables (*ra, bong*). It was also common for a winter kitchen (*dgun sa*) to be located on this level. The first level usually consisted of two or three rectangular rooms, each accessible from the next, with a combination of a winter kitchen (if not on the ground level), summer kitchen (*dbyar sa*) and one or more storerooms (*mdzod*). Seasonal habitation patterns are evident, with families moving into the most interior rooms during the coldest months of the year and using the partially protected exterior spaces—balconies, partially roofed or enclosed rooms (*mkha' g.yab*, N. *kavya*), rooftops (*thog*)—in the warmer months. In some cases, a small shrine room (*mchod khang*) was built on the second level or roof. The early house types functioned as economically self-sufficient units, primarily devoted to food preparation and storage.

Type 2

As the settlement expanded, it gradually became denser to fit within the rocky, sloped confines of the village's sacred territory. The symmetry and semi-dispersed layout of the earliest houses gave way to an agglomerated type of house with a three-dimensional jigsaw puzzle layering of space (fig. 43). As a result, these houses frequently have asymmetrical forms and are linked to other buildings by overlapping rooms, party walls and tunnel-like passageways.

²⁰ The popular oral traditions associated with specific houses and events in the village will be presented in forthcoming research (Kimmitt forthcoming).

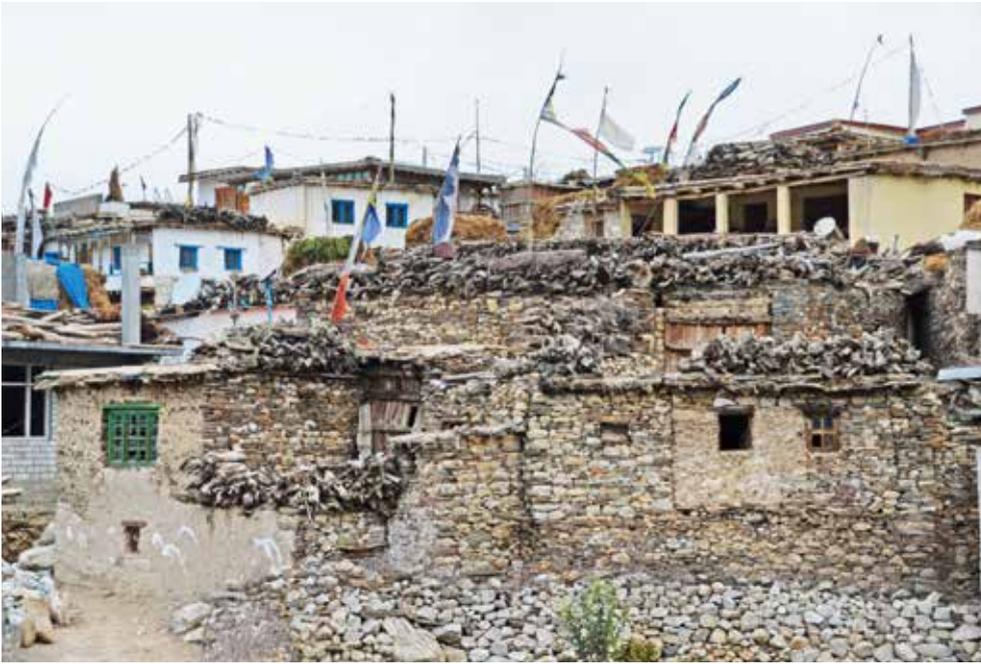


Fig. 43: House Type 2, Dharam Singh House, southeast facade.

This typology may mimic that of the erstwhile hilltop settlement above the lake, thought to have been the original site of the village.²¹ The close-knit form of the settlement reflects the growing population and consolidation of the formerly disparate, smaller settlements observed by A. H. Francke and G. Tucci in the early part of the 20th century.²² It also highlights the relatively homogenous religious and social structure of the community and the priority of maintaining agricultural land immediately surrounding these early housing clusters.²³

With the development of these agglomerated dwellings, there was a transition to building houses exclusively in stone masonry using locally sourced, rubble stone, frequently without the use of mud mortar. Building with undressed rubble stone, which was abundantly available in the area, was less expensive and faster to prepare than mud bricks. Like the earliest houses, these houses literally grow out of the boulder-strewn landscape, with large boulders incorporated into the foundation walls of the building (which can be seen jutting into the ground level storerooms and animal stables). Moreover, they often display oddly shaped rooms with curved or sharply angled walls (*rtsig pa*) as a result of being constructed by hand, without measuring tools, to fit within the householder's allotted land. These seemingly haphazard forms differ from the village temples, which necessarily adhere to specific formal and

21 Refer to note 11.

22 In his account, Francke lists the names of five deserted settlements, most of which were abandoned long before the beginning of the 20th century, which attest to a former much larger area of cultivation surrounding the present settlement of Nako (Francke 1914: 34). However, according to Tucci and Gheri in 1933, these disparate settlements had not yet coalesced into the larger village of Nako as it is known today: Nako was "a village much larger than Chang[o] and like that composed of three townships built on three spurs of the mountain, separated by three streams (...)" (Tucci and Gheri 1996: 68). These accounts indicate the impact made by changes in local irrigation channels to the situation of housing clusters, thus contributing to the growth of the current settlement.

23 The nearby village of Poo, for instance, offers an interesting contrast, where the more stratified society is evident in the settlement layout, with the high caste households occupying a higher site on the hillside than the low caste families.



Fig. 44: Kitchen shelf unit (*thag thag*), Pasang House.

proportional rules in their functional role as spaces for religious practice.²⁴

In terms of ornamentation, by the beginning of the 20th century, the visual motifs known from early wooden elements were frequently reiterated in the carved wooden shelving units (*N. thag thag*) that formed an integral component of the main kitchen and living space for the storage and display of utensils and food items (fig. 44). These woodcarvings make use of motifs—primarily geometric and vegetal—found temporally and geographically as far away as in fountain stones in Chamba and in the early stone carvings of the stupas of Bharhut and Sanchi, a clear indication of the presence of pan-Indian iconographic themes in the region. Dwellings of this type maintain a similar functional basis to that of the earliest dwellings, with seasonally shifting spaces, ground level animal stables and an emphasis on food and fodder storage. Recent expansions of village houses have created new variations of this type, which will be discussed later in the paper.

Type 3

The most intensive period of growth and diversification of building types and functions has been in the past 40 years following the destructive earthquake of 1975 and into the present.²⁵ Beginning around the second half of the 20th century, the housing typology shifted with the construction of single level, individuated residential buildings outside of the early historic core of the village but still within the wider sacred boundaries demarcated by the farthest gateway stupas and temples (fig. 45). Thus, as the settlement expanded, individuated buildings became predominant. The interior layout reveals a return to symmetry, to some degree, and room dimensions remain small with low ceilings. This dwelling type continues the tradition of

Fig. 45: House Type 3, Chhoeden and Geshab house, north facade.



24 Refer to contribution by Kozicz, "Geometric Pattern and Proportional Frame."

25 See Srivastava 1988 for a brief report on the effects of this earthquake.

stone construction; many of these buildings are mud-plastered stone, while more recent ones are plastered with concrete.

Exposure and access to a variety of pre-made building elements, particularly from the 1990s onward, have given householders the chance to make more idiosyncratic choices in the articulation of their homes. This can be done through colour, paned windows and assorted ornamental elements. Woodwork was often left plain, like window frames and doorframes, or featured simple geometrical designs.

The new single-level household organisation is indicative of a shift in the functional basis of the home and village. The outward expansion of the physical spatial arrangement of the settlement is also evident within the house itself; the house's interior spaces were exposed to the exterior through the incorporation of larger windows and doorways, certain functional spaces were shifted outside of the house and seasonal habitation patterns changed. This subtle transitional pattern from the interior to the exterior²⁶ is, in some cases, a direct corollary to improved technologies and resources that allow for better light and warmth.²⁷ These changes indicate increasing economic reliance on both external incomes and income from cash crops, rather than on traditional subsistence agriculture, as well as a preference for a variety of imported foodstuffs.

Type 4

The introduction of the "motel style" building, or rectangular structure with a series of adjacent rooms possessing separate entrances along a linear access, offered an option for both new single-storey residences and as a common mode of expansion of older dwellings (fig. 46). This building type has also become the *de facto* type for municipal buildings in the village—namely, a primary school, high school, small medical clinic and the local Panchayat office, all situated at the western edge of the village and to the south of the sacred compound and the new monastery. Beginning with this type of dwellings, there is evidence of imported materials becoming readily available, as well as the expansion of a cash-oriented economy and the need for new commercial functions (shopping, tourism) in architecture.

Often this type is constructed of mud-plastered stone, particularly in cases of the expansion of a preexisting house. The scale of these buildings often differs from earlier structures, with ceiling heights of 2 m or higher (as opposed to as low as 1.4 m in the earliest houses). In many cases, these buildings possess flat roofs in harmony with the early house types (and often an indication of plans for future vertical expansion), however metal pent roofs, reminiscent of the slate roofs found at lower altitudes in many parts of Himachal Pradesh, are increasingly popular. These roofs require less routine maintenance and better withstand the heavy rain

26 For a discussion of the trend in Himalayan villages of moving outward both on the level of houses within the settlement and within the individual spaces of the house itself, see Gutschow 1998; Gutschow and Ramble 2003.

27 For instance, the installation of large solar-passive windows in the summer kitchen of the Dokhanda house, along with the more heat-efficient steel stove, have impacted the seasonal habitation of the house. Now the winter kitchen is closed off, and the summer kitchen is used as the primary living space year-round. Two components of early houses that have been relocated to the exterior of many newer houses are the livestock stables, which have been shifted to pens immediately outside of the house, and the pit toilet (*phyag sa*), which requires two levels and, thus, has been replaced by a public toilet outbuilding shared between several families. The house has become the domain of people, with the less cleanly functions excluded from the interior household space.

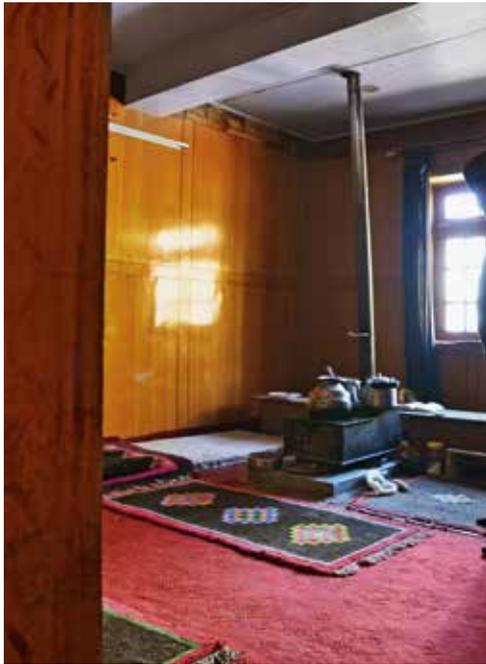
Fig. 46: House Type 4, upper level addition to Chhering Chhonzom house, south facade.



and snowfall that the village has received in the past decade. As a result, there is discussion in Nako about traditional cultural identity, climate change and the appropriateness of different roofing materials and styles.

An example of a home that has undergone a “motel style” addition, which illustrates continuities and differences in household functions, is Chhering Chhonzom’s house. The renovation (c. 1997) added a third level to the house, turning the former roof into a large, open veranda that is one of the most frequently used spaces in the house. The addition to Chhering Chhonzom’s old stone and mud brick house (type 1) provided an updated kitchen and sitting/sleeping rooms (*nyal sa*). In these new spaces, there is still a clear tendency to create multi-purpose rooms that can transition from a temporary kitchen to guest room-cum-storage space. This reflects, in part, increasing mobility within the region and the need to provide

Fig. 47: Kitchen/living room interior, Panma Chhoeden House.



adequate hospitality to guests, particularly during large community events and the visits of important Buddhist teachers when the village experiences a large influx of people. The overall manner of use of these newer dwellings does not indicate a drastic difference from that of earlier buildings. For instance, flat rooftops or partially covered verandas remain an essential space in the household for drying food and clothing, storing wood and sitting in the sun; a significant portion of interior space is still reserved for storage; and the social life of the family is still centred on the hearth in the main kitchen/living room (fig. 47).



Fig. 48: House Type 5, Drongboche House / Lakeview Guesthouse, south facade.

Type 5

As in much of the trans-Himalayan region, the most recently introduced architectural type in Nako is the multiple-level reinforced concrete construction (RCC) building (fig. 48). Structurally and formally, concrete buildings conform to an established type now found across the Himalayas. These dwellings are visually set apart from other buildings by their exaggerated scale, as well as differences in materials and modes of production. Further, most buildings of this type are located on the periphery of the village—near the lake in the south or the service sector which has emerged in the northeast corner (containing several hotels and shops as well as the local bus stand). Although they are usually isolated buildings, in at least one case, the new RCC house is integrated with the neighbouring older home of the same family (refer again to fig. 48). These adaptations—demolition, reconstruction and expansion—to the site of the family's original ancestral house offer an interesting example of architectural palimpsest in the village.

The visual character of this type of dwellings is striking, with embellishments in terms of bright colours and “palace-esque” elements, such as balustraded roof parapets and faux brick or stone facades. In addition to the fashion for new and novel features, 21st century buildings reveal a conscious return to typically Tibetan modes of ornamentation, which are tied to a renewed interest in the local (Tibetan) Buddhist cultural identity. Examples include Buddhist auspicious symbols and wooden fascia with colourful lotiform designs. It is significant that these pan-Tibetan Buddhist motifs and ornaments have gained popularity, rather than a revival of the historic regional woodcraft traditions.²⁸

Economic expansion in villages along the National Highway 22 and the improvement of this sole roadway into Upper Kinnaur have offered new opportunities for the people of Nako

²⁸ This choice is certainly motivated, in part, by financial concerns. Interestingly, with increasing wealth in Kinnaur, large carved wooden portals with multiple frames have been incorporated into recent concrete houses in neighbouring villages and may soon become common in Nako, as well.

in terms of the cost and availability of different materials and modes of labour. Reinforced concrete construction dominates new building projects taking place throughout Kinnaur. Associations of concrete with cleanliness, durability, low maintenance and modernity and progress have all contributed to its popularity. Many locals also prefer concrete construction because it provides more interior space within the confines of the property than does construction with stone, since the building technique allows for higher ceilings and thinner, straighter walls. The greater height of each level of the concrete house, as well as the expansive ground plan, noticeably contrast in scale with the village's mud and stone houses; their smaller levels stacked into the hillside are dwarfed in comparison.

PERCEPTION AND CONSTRUCTED CATEGORIES OF ARCHITECTURE

This examination of Nako's different extant layers offers a typological and chronological basis for discussion of the values and traditions embodied by architecture at different moments in time. The next step, which ultimately extends beyond the scope of this paper, would be to clarify the descriptive terminologies and visual vocabularies used to define and value the village's domestic buildings. Presently, the language utilised is vague and inconsistent, based on observations that tend to neglect the actual diversity of built forms and how they have gradually grown together to form a cohesive and functional inhabited space.

The construction and use of these descriptive categories reflects historically and culturally relative perceptions (and value judgments) of architecture. Further, the manner of engagement with architecture affects how buildings are perceived and defined in terms of what is valued, such as a specific material, ornamental feature or social-spatial function. The users or inhabitants of Nako's dwellings tend to define their architectural character in terms of its "use-value" (both functionally and symbolically), whereas many external viewers (particularly scholars and tourists) emphasise the importance of the perceived historical authenticity or "age-value" of the dwellings based on visual cues, particularly the use of local materials. In the latter approach, by privileging observations of the visual character of residential buildings, shifting modes of production and material choices appear to represent a drastic change from the earlier houses. Yet these visual changes belie continuities in patterns of inhabitation. For example, while some aspects of how household space was once used and interpreted are no longer as relevant, such as gender divisions and the function of the sacred central pillar, other dimensions, like the social links and responsibilities of the household, have been retained and, in many cases, even strengthened, irrespective of the antiquity or modernity of the physical structure of the house.

These varied perspectives, coupled with the lack of precise dates of local buildings (as well as structural and ornamental features and materials), perpetuate the use of simplistic, dichotomous characterisations, which have become deeply entrenched in discussions of Himalayan vernacular architecture. Usage of the category "traditional" in contrast to that of "modern" is, for instance, particularly convoluted, weighted by incongruent value judgments. The relativity of these terms and inconsistency of their use limits their value as descriptive categories and as tools for addressing preservation and development.

CONCLUDING REMARKS

Careful analysis of dwellings and modes of inhabitation over the course of Nako's growth and development demonstrates that this architecture has never been stagnant; rather, it reflects the entangled histories of its users, often revealing its layers of materiality and use. The five dwelling types outlined above convey the spatial-typological differences between these buildings in terms of the progressive establishment of architectural forms in the village. While there are visibly divergent building types in the village, their patterns of use remain relatively consistent. The external material form of the house, thus, does not necessarily determine the manner of use; rather people find ways to make different spaces work for them. While the contextual factors of climate, geography and materials impact architectural choices, they only serve as the widest parameters of architectural design. They do not determine the final product, which is left to the agency of the inhabitants. In this way, tradition is an active process that is continually adapted and reinterpreted, as evidenced by the organic nature of Nako's dwellings.

As we have seen, while Nako's local architectural heritage and traditions are frequently described as worthy of preservation, the ways in which these traditions are interpreted varies between individuals. The construction of new houses and renovations of old houses are undertaken in varying ways that do not yet reflect any cohesive standards of heritage preservation valuation within the community. Examination of the interconnected, palimpsestic nature of domestic buildings offers one approach toward understanding preservation as a component of development in the village. Key questions require ongoing consideration: why do people create buildings the way they do, and how do they structure their daily activities within certain built forms? How is a hierarchy of values relevant to heritage preservation determined? Discussion of what is of contemporary relevance and meaning in local architecture traditions, as well as how it relates to the past, is of increasing importance to many residents of Nako, who have a keen interest in maintaining and reviving their local culture. The effect of such discussions will hopefully be manifest in thoughtfully designed buildings that effectively respond to shifting local needs and values, adding further layers to the complex architectural landscape of this village.

Acknowledgement

This paper represents part of a larger study that expands the research conducted in Nako under the auspices of the Nako Research and Preservation Project (NRPP) to include the village's vernacular architecture. The NRPP can be referenced online at <<http://athene.geo.univie.ac.at/project/nako/?id=1>>. The current study is conducted within the framework of the Doctoral College (*Initiativkolleg*) "Cultural Transfers and Cross-Contacts in the Himalayan Borderlands" at the University of Vienna, Austria. I am deeply grateful to the many people in Nako and Upper Kinnaur who have so generously contributed to this research, particularly H. E. Lochen Tulku Rinpoche, Commissioner Hukam Chand Negi and Shanta Kumar Negi. I would also like to offer special thanks to Univ.-Prof. Deborah Klimburg-Salter for her critical feedback and helpful suggestions on this article and to Khenpo Thampel for his thorough assistance with linguistic questions.



1.4. Temple Architecture in the Western Himalayas and Nako

Romi Khosla

The medieval architecture of Buddhist temples in Asia is, by and large, associated with high architecture worthy of imaging on post cards. However, there are exceptions. This characteristic of high architecture is not one you can apply to the early 10th–12th century temple architecture of the Western Himalayas, which by contrast, is externally unspectacular, plain and bland almost to the point of being indistinguishable at a distance from the village houses in that stark desert landscape of the region. It was not till the later period from the 14th century onwards that Gelug (*dGe lugs*) temples began to be built as prominently raised structures clustered together in unique monastery complexes highly visible from a distance in spectacular locations, worthy of images on postcards.

The temples of Nako belong to that early architectural period of Buddhist expansion in the Western Himalayas which took place during the two hundred years that followed the establishment of Nyarma by Rinchen Zangpo (Rin chen bzang po) towards the end of the 10th century (fig. 49). This was the period when the unique architectural language of the early Buddhist temple was first formulated in this region, as can be seen in Tabo under the patronage of the kingdom of Purang-Guge during the reign of King Yeshe Ö (Ye shes 'od) (fig. 50). The uniqueness of the language of these temples is not immediately apparent since their physical form, the method of construction and external presence are not very different in typology from ordinary village houses. Indeed their external architectural typology of unbaked mud construction is one that is shared by structures across a wide area of the northern dry regions of the Himalayas, the northern parts of Afghanistan, parts of southern Central Asia and Western Tibet. Their uniqueness of language and style gives them a special identity by which the contrast between the plain external features of the temple and the richly decorated interiors of the inner sanctum has sometimes been termed early Tibetan. Many of the temples of this early period replicate the spirit of a cave that has been lavishly decorated from within. On the exterior, the three enclosing walls of the temple are uninterrupted surfaces without any decorative or architectural features. The fourth wall has just one doorway leading into the interior and in many cases this front wall is plain from the outside too as can be seen in the smaller temples at Tabo and Nako. There are, however, examples as in the Sumtsek in Alchi and in the two Śākyamuni and Vairocana Temples at Mangyu, where the front entrance wall is embellished with a porch and pillars.

With the exception of the few temple complexes which have assembly halls, the early period temples have a domestic scale such as exemplified by the temples at Mangyu and Lha lun. The assembly halls like that of the Main Temple (*gTsug lha khang*) at Tabo or the slightly smaller one at Alchi (Dukhang, Tib. *'du khang*) are much larger and are still used for assembly and ceremonial services (fig. 51). Externally, however, both the larger assembly halls and smaller individual temples were constructed almost like large and small adobe plastered boxes. The typical early period temple could be located within a larger complex of temples such

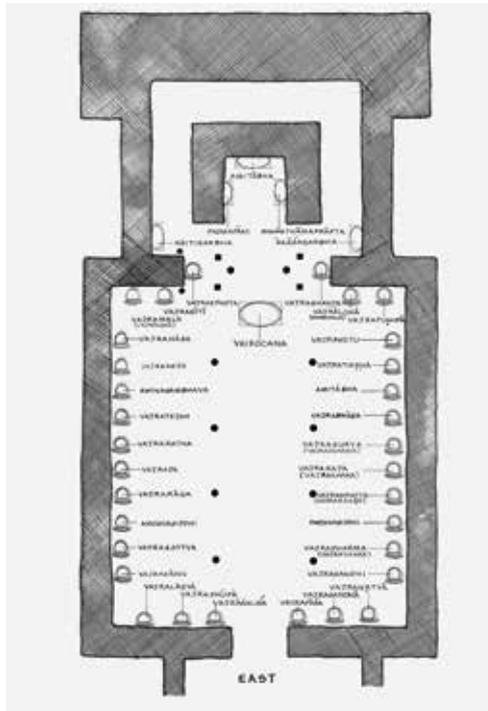
Fig. 49: Nako surrounded by the Himalayan mountains.



Fig. 50: The temples at Tabo.

as at Tabo and Alchi or be a stand-alone one as in Lha lung where the Vairocana Temple is a small room attached to the side of a house and barely visible as a special place of significance. The Serkhang (*gSer khang*) or Golden Temple stands separately and has had an assembly hall added since 1924 when Shuttleworth visited it. In Nako, for instance, the Translator’s Temple (Lotsawa Lhakhang, *Lo tsa ba lha khang*) is much larger in volume than the three other temples around it, which are grouped to form a courtyard. There is no clear consistency or similarity in the layouts of these early temple complexes.

Fig. 51: *gTsug lha khang* Tabo. A mandala in three dimensions.



Moving beyond the physical simplicity of their domestic-scale architectural typology, one sees that these early temples are nonetheless conceived differently from all other structures in the region including palaces, forts, community buildings and houses. The temple was special. It was built primarily as a sacred three-dimensional structure conceived simultaneously at two levels of existence. At its obvious, physical level, which we could call the gross level, it existed as a container, a structure with a roof and wrap around wall that provides shelter from the harsh climate for the initiates within. On its inner side, within the temple space, the walls created a dark, cave-like enclosure with smooth, plain, uninterrupted wall surfaces on all sides. The wall murals (fig. 52) and clay sculptures were then created as a nar-



Fig. 52: Wall murals in Nako, Lotsawa Lhakhang.

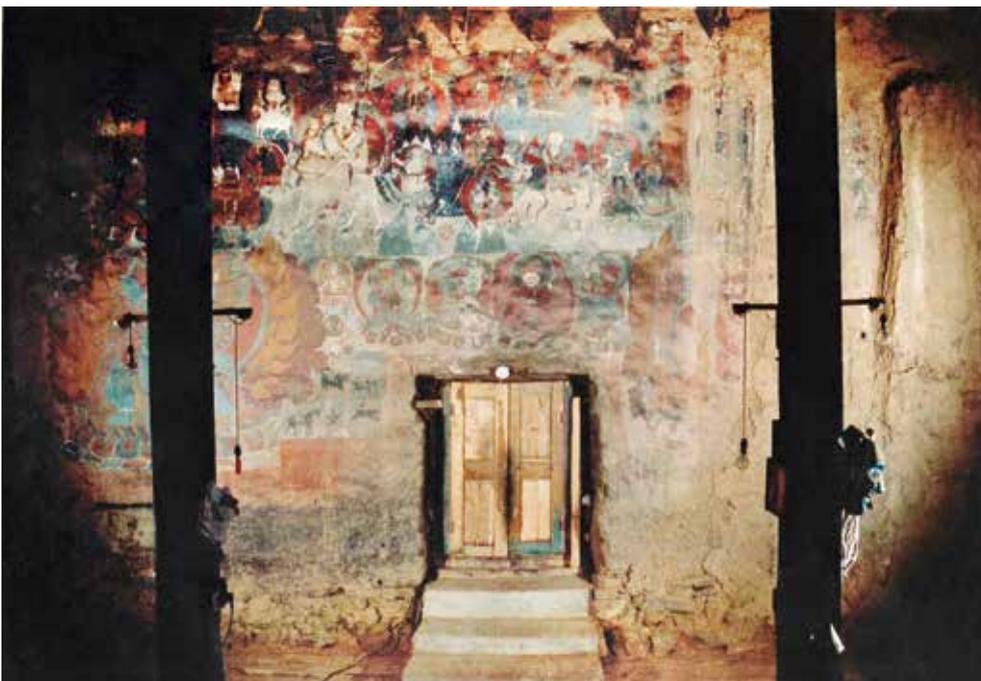


Fig. 53: Entrance door of the Lotsawa Lhakhang, Nako.

rative, barely visible in the dark, on this extensive horizontal stretch of walls with uninterrupted surfaces linked as one continuous spiritual space. The substance of this immensely rich creative endeavour provided the guidance and systems for higher levels of perceptions to the initiates and their teachers. For the faithful, the murals and sculptures could function like a pure physics text book to a science student, using illustrative diagrams and formulae to clarify abstract concepts that are difficult to grasp through the text alone. At its other level, the subtle level, the interior of the temple provided a rarefied domain, a capsule whose shell is entered through the door. Upon entering, one perceives the inner side of the shell into which

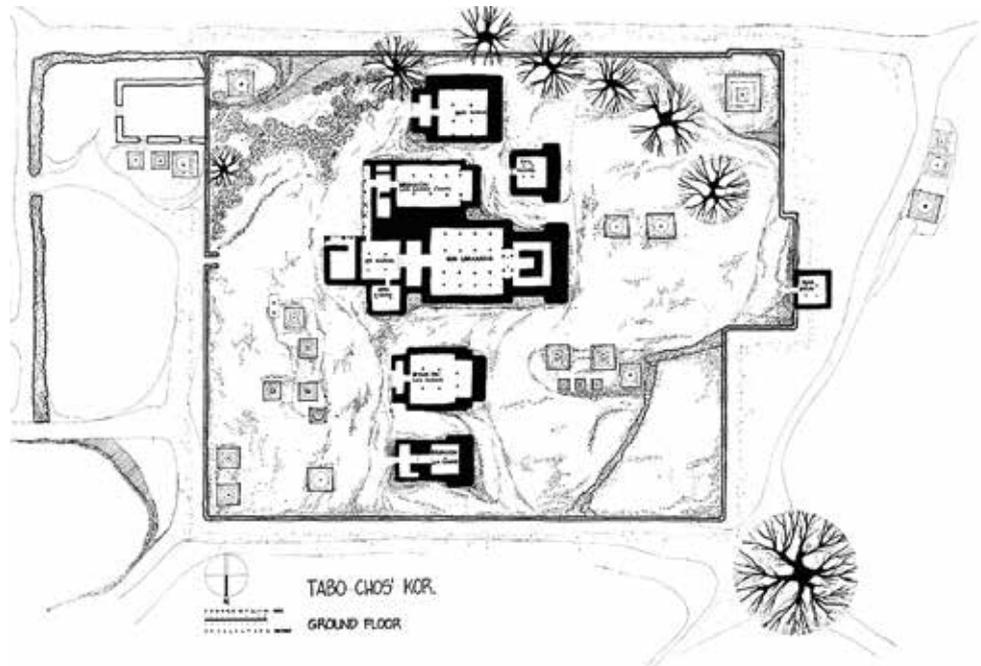
one has entered, where the walls illustrate the subtle boundaries of that particular sacred domain in which the teacher has led the initiates (fig. 53). At this deeper, more subtle level, the temple edifice is a mandala and can be represented with equal importance in a scroll painting, a sand diagram or a permanently built structure, primarily as an aid to higher consciousness.

LOCATIONAL ASPECTS OF THE TEMPLE

The temple has an important place at the centre of the Buddhist world view since it provides the community and its individuals an important physical and spiritual link to the larger universe outside. As such a link, the temple is not a sole symbol in the landscape as a church or a mosque might be but rather part of a larger geomantic pattern or “mandala” of the site within which it is located. Footpaths and axes that are linked to circumambulation and pilgrimage rituals linked the various sacred points within this site mandala.¹

The site mandala describes a sacred domain in which the temple, other shrines and chorten (*mchod rten*) and other chapels are placed. The whole site mandala forms a repository for the spiritual guardians who not only protect the community but also form an important point of reference in the wider Buddhist world view. Local deities venerated by the community have their place within this mandala and are thus incorporated into the larger Buddhist universe defined by the sacred domain. Such a domain extends across the landscape of the village and surrounding geographical features and can often contain the entire or part of the village. The physical description of the site domain is therefore equally important as the subtle definition, which exists at the deeper level of shared community perceptions (fig. 54).

Fig. 54: The site mandala of Tabo.



1 See Monastic Settlement of Hemis, Ladakh. Process for historic site development. Anuradha Chaturvedi. Indian National Trust for Art and Cultural Heritage (INTACH) Project, Director Romi Khosla. Institute of Asian Cultures, Sophia University, Tokyo.

The choice of the most suitable location for the temple within the community land is therefore determined by both obvious and subtle factors. By obvious I mean those factors that are predominantly influenced by the geography of the terrain, its vulnerability to climatic and weather-linked hazards, soil conditions, orientations and other gross factors all of which are an integral part of the religious sub-strata that are considered by masons and craftsmen to be relevant to prolonging the life of the structure. The subtle, deeper factors that influence the location of the temple are generally determined by more abstract spiritual conditions that have geomantic reasons explained in texts.²

The important aspects and relevance of subtle factors that influence the location of the temple need to be explored further, perhaps by a *dharma* practitioner who is familiar with the cosmology of the temples. Scholastic research in the early Buddhist period of the Western Himalayas is currently located in academic centres in the First World where the understanding of Buddhist perceptions has been built up from the growing body of research work meticulously gathered over the years by intrepid scholars who have been unravelling these esoteric ways of seeing without the wholeness of understanding that knowing the *dharma* practice brings. To visit a temple with a *dharma* practitioner and to visit it with a scholar provides two entirely different experiences.

Considering the spiritual importance of the temple structure, it is surprising that such a temple, unlike the ones in most Buddhist regions of Asia, remains almost unnoticeable in the stark landscapes of Ladakh, Spiti and Kinnaur. Local sustainability and the availability of the three building materials of the region clearly determine the external form of the temple. The same factors have influenced the early temples whose remains can now be seen in Afghanistan, Central Asia, Tibet and northern China. The extremely poor state of preservation of the temples in these other regions however adds a unique importance to the early period temples of the Western Himalayas such as the ones at Ropa, Tabo, Nako, Alchi, Lha lun, Mangyu, Sumda and others where the marked contrast between the external structure made of unbaked earth, plainly rendered in clay, and the intensely decorated walls on the inside illustrated with miniature paintings and clay sculptures, the personae of the spiritual world of the Buddhists. Following the damage done to the interiors of the early period temples in Tibet and China, the surviving temples in the Western Himalayas have assumed a cultural value that is beyond conventional evaluation of ancient monuments. This would explain why generations of resolute scholars have trekked and ridden in the difficult terrain of this region and continue to research this exceptional heritage.

BUILDING MATERIALS

Three materials almost exclusively have been used to build in the Western Himalayas. These are unbaked earth, mud-mortared stone and timber. However, in using these materials, the region is not unique. These are materials that are also abundantly available in the rest of the world. Indeed, three quarters of the earth's crust is made up of unbaked earth and almost a third of the population of the world lives in houses made from unbaked earth. All three materials continue to remain, as they have for centuries, as the most sustainable building materials available to a community. Ironically, these materials used from ancient times in the Western Himalayas, have now assumed a high degree of importance in contemporary debates about

² See Gyatsho 1979.

environmental sustainability and global warming mitigation. Unbaked earth is now evaluated with complex matrix criteria and given the highest of green ratings because it is sourced locally, is completely reusable and uses zero energy for its production—the very reasons that go to explain the use of this material in the isolated self-sustaining communities in the Himalayas. Shunned once by the modern movement for architecture for its primitive associations, this ancient material is now being promoted as a future visionary saviour of the environment.

The choice of building materials that traditional communities make is determined by both sustainability and availability. The longer the distance over which these materials are carried, the less sustainable they are considered and therefore, costs and sustainability are intimately related. The age-old traditional architecture of the Western Himalayas meets the highest standards of sustainability in the modern world. But these changes in perceptions about traditional building practices are relatively recent. Earlier, in the era that began in the 1960s, policies brought prescription development, military belligerence and cast a wide net of national identity over this region regardless of the spirit of its various diverse places and the varying expressions of identities that defines each of the local communities settled in the complex valley systems of this mountainous region. Prior to that period, the entire region was sustained by local production, barter and exchange of goods together with the exchange of intellectual and spiritual teachings that had kept the region on the slow and difficult road to material progress. In the absence of roads and data information transfer from the mainland, pack animals carried consumption goods, building materials and spiritual texts. The ways of seeing of the communities that lived in the upper reaches of the Western Himalayas emanated from a Buddhist worldview.

CONSTRUCTION TECHNIQUES

The techniques prevalent in the region for the construction of the foundations, walls and roof of the temple relate directly to the three building materials available.

Mud-mortared Stone

The foundations use mud-mortared stone to prepare the bed over which the walls are raised to a height that is above the floor level of the temple. This is common practice throughout the world where unbaked earth superstructures are erected since any part of the wall structure which is underground needs to remain resistant to water intrusion and seepage from the surrounding area. In certain regions, particularly Lahul, the entire walls of the temple have been built out of mud mortared stone since rock and stone is readily available. However, in the drier parts, including Nako, stone is used for the foundations as well as for buttressing the walls while the superstructure of the walls is built of sun-dried mud (fig. 55). The availability of the stone and the type of stone used depend on the location of the temple in relation to rivers or rocky tracts. River-worn stones tend to be inherently unstable when stacked together and generally have to be packed with smaller stones to fill the gaps between the rounded faces of the stones. It is common to find houses in villages that are located near rivers using eroded stones for construction, particularly in Lahul and Spiti. This technique is also found in the construction of the later period monastery structures where the inherent instability of the stone courses of rounded edges is countered by placing timber bands at regular intervals up the wall to ensure the even distribution of the vertical weight through the braced walls.



Mud Brick

Mud bricks, also known by the Arabic Berber name “Adobe” consist of unbaked earth shaped by moulds and stabilized with vegetable fibres. Mud can sometimes be mixed with richer clays for better bonding, particularly in villages where there is a tradition for pottery or clay moulding and a deeper understanding of mud being used for cultural objects. Inevitably there are specific sites from which mud is excavated for construction. In Nako, there were four such sites that have suitable clay for making both adobe bricks and the plaster for the walls and roof. The excavated earth is transported in willow-branch baskets and heaped on the ground. The top of the heap is then pressed into a crater to receive the water. The mixture is then continuously turned with wooden pallets into a thick paste and then compacted by hand into the wooden moulds for the bricks. After waiting for about fifteen minutes to allow the mud to consolidate, the wooden mould is turned upside down if it has a wooden base underneath to strengthen the mould. Alternatively, the turned mould is lifted clear of the formed earth to leave the damp brick inset at the place of its making while another one is moulded along side. It is common to mix chopped barley husk into the wet unbaked earth paste for

Fig. 55: Buttress walls of Nako Temples.



Fig. 56: Adobe mud bricks used for historical and conversation wall construction in the Western Himalayas.

better bonding (fig. 56). The walls have a thickness of one and a half brick width, which is about 70 cm thick. The craftsmen use both Flemish and English (at Nyarma) bonds. There is also no consistency in the sizes of the bricks across the region where I have found them varying from 300 x 150 x 150 mm to 400 x 200 x 100 mm. In Nako we found that the temples were made from two different brick sizes. The Translator's Temple used 210 x 105 x 60 mm while the Upper Temple (Lhakang Gongma, *Lha khang gong ma*) had 220 x 110 x 50 mm. In addition there were some square mud bricks, which we removed for repair from the ancient structure with a height of 150 mm indicating that different size moulds had been used to produce the adobe bricks.

Shuttered Mud

Unbaked earth walls in this region are often made from shuttered mud which is scooped with spades or hands into small baskets to be lifted and laid between a pair of parallel wooden planks secured together with battens that go through the wall below as it comes up. The battens secure the faces of the planking in a parallel direction along the wall below and receive the fresh mortar course. Once the mortar mix is placed between the planks, it is either beaten with wooden mallets or trod on by feet in a marching movement, which kneads the paste held between the planks—a process not dissimilar to traditional French farmers treading on their grapes in a tub to extract the juice. The treading of the earth mix is done in layers till the mud has reached the full height of the shuttering. The securing battens are then pulled out and the planks moved along the wall for the next shuttering and treading session.

The walls of the early-period temples have clearly been repaired and replastered periodically. The unplastered walls revealed a mixture of courses and brick sizes that witness multiple repairs done over time. These repairs still continue, generally during special ceremonies being observed or visitations by senior monks. I have not therefore been able to determine whether this technique of shuttered mud has been used in them. Looking at the remains of Nyarma and the construction of Nako temples where we were opening up the plaster for repair work, the wall construction has been done with mud brick mortar coursing. In the Translator's Temple in Nako (where the Prajñāpāramitā sculpture was being restored), the damaged mud plaster on the wall behind the sculpture was clearly spread over a mud brick mortar wall into which holes had been drilled to take the timber supports for the earthen sculpture.

Timber Lacing of Mud Walls

Temples often have horizontal timber beams that have been set into the walls during the erection of the mud brick walls. If they are carefully placed, each of these timber lacings consists of a wooden ladder that is placed horizontally on the wall at regular intervals. The long beam members are seen exposed on the outside and inside of the wall, flush with the surface, before plastering. Timber thus placed intermittently within the wall provides it with a tensile strength that resists seismic jolts. Such a timber course in the midst of a mud wall also helps to prevent wall cracks travelling over time throughout their height. This lacing technique is more visible in the buildings and temples of Lahul where dry and mortared stone walls with-

out plaster are used. Very elaborate use of timber buildings can be seen in the buildings at Bhaktapur in Nepal. In Nako, all four temples have wooden lacing with tie beams that have been inserted horizontally along the full length of the walls. These lacings can form a complete ring and also be part of the ladder described above. Furthermore, the timber lacing beams are linked at the corners with the additional support of vertical wedges thus providing a complete framework in the upper part of the walls. We found that these ties and timber lacings had been placed at the upper end of the walls and had thus protected the cracks in the walls from travelling right across the full height of the walls.

The Roof

Traditional roofs in the Western Himalayan region are flat, but with inadequate slope for water outlet. Their thickness can go up to 25 cm with compacted earth, which unfortunately creates dangerous dead loads on the timber structure below. In Nako we found that the timber structure had indeed failed from the weight of the earth spread on the roof, built up and added to over the years. The weight of the mud is distributed onto cedar planks that are then placed over the beams (fig. 57). These planks that support the earth also form, on the underside, the ceiling of the temple. They are covered with an earthen preparation layer, followed by a white gypsum ground on the underside and are the support for the paintings which decorate the inner surfaces of the ceiling in the temple. We have also found that in some cases where there are no decorations on the ceiling, or the ceiling has been reconstructed, the compacted earth is supported by willow branches instead of cedar planks as in the case of the Gyaphagpa Lhakhang (*rGya 'phags pa lha khang*). These twigs, which are about 3 cm thick, are densely packed and are in turn supported by wooden beams that are placed onto the walls. Roof constructions vary, probably due to interventions during the last 800 years. On opening the roofs of the temples in Nako we also found birch bark sheets spread as a water proofing membrane sandwiched between the layers of compacted mud. This caused a predicament for our restoration process. The replacement of this birch bark was not available locally and had not been used by the villagers as long as they could remember, yet they all knew that it was to

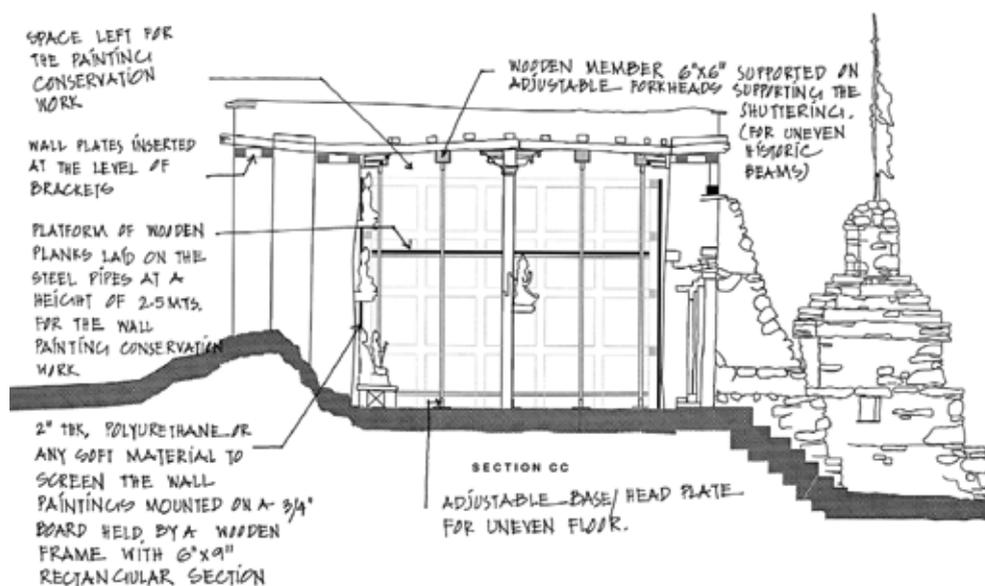


Fig. 57: Survey drawing showing details.



Fig. 58: Flat compacted mud roof being reconstructed at Nako.

be sourced from the lower reaches of the Kinnaur Valley where birch trees are abundant. Our team members then accompanied some village craftsmen to bring this birch bark back from its source to repair the ancient temple roof.

This technique of using a flat compacted mud roof provides protection from snow rather than rain. Generally, as we found in Nako, these roofs are made from a compacted clay known as *tava* ("eightfold") which is applied in several layers and supported on a layer of locally harvested shrubs called *nyange* and *nyazak* which is placed on top of slim willow twigs which are in turn supported by the timber beams below that compose the main structural elements of the temple structure (fig. 58). The thickness of the sub layer of *tava* soil is approximately 20 cm and its water-proofing qualities can best be described as water-absorbing qualities. The effective protection for preventing damage to the interior as by such absorption is done with a coat of clayey slurry of *tua* clay applied over the sub-course. In this traditional technique of roof construction, the top exposed layer of the earth plaster has to be regularly maintained by the community and reapplied every six months. However, this method of roof construction with willow twigs is an extension of domestic house building techniques and has almost certainly replaced the original roof construction techniques that use plank and birch to which we were attempting to return in our restoration methods. The rainfall has not been measured or patterned across the seasons, but from my own experience I have known it to be quite heavy at times, coming in short bursts which tends to erode the top *tua* layer of plaster on the roof. Roofs can also become damaged during winter, when the snow is brushed off from the roof with wooden shovels and willow brooms.

The survival of the early-period temples in the Western Himalayas for over seven centuries is a great achievement for the building techniques that were used at the time of their construction. The unfortunate neglect of these temples over many decades has damaged them substantially. At Nako we found that the deterioration of the structures has been caused not

only by the neglect by the community but also due to the earthquake of 1975 which caused cracks in the walls as well as bulging in the load-bearing walls which in turn resulted in a loss of integrity of the original structure. Although the temples at Nako were constructed with timber lacing which has been placed at varying levels to minimize seismic damage, over the years the timber has become exposed and has deteriorated and cracks have formed in the walls where the lacings have been displaced. The increased mud loading from the roof aggravated by the gradual build up of additional layers of earth on the roof had caused the roof to sag and pond in the centre. I had observed this in the roof of Lha lun. With the absorption of the Kadam (*bKa' dam*) School into the Gelug (*dGe lugs*) School, these temples of the early period that were centred on the teachings of Vairocana have been neglected by the community, which seldom has the resources or energy to maintain them as periodically used places of devotion or as relics of their past.





2 NAKO GOMPA

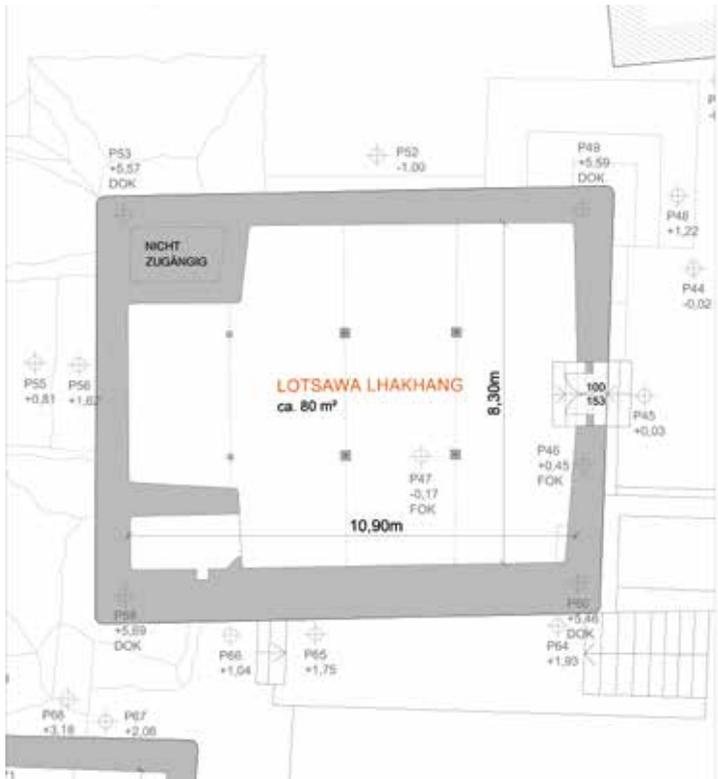


Fig. 60: Site plan and plan of Lotsawa Lhakhang.

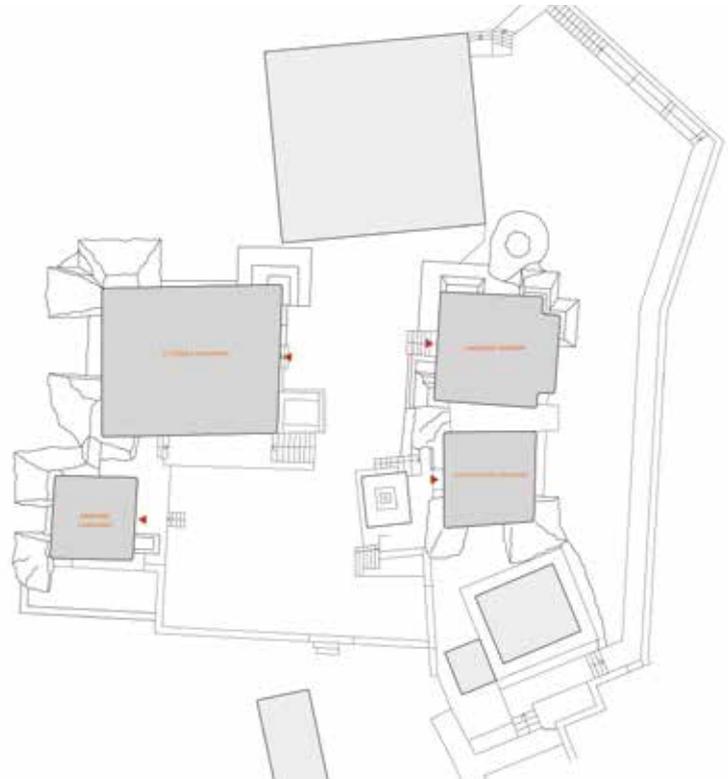


Fig. 61: Temple building.



Fig. 62: Temple building.



Fig. 63: Apse, Lotsawa Lhakhang.

LOTSAWA LHAKHANG

Fig. 64:
South wall, Lotsawa Lhakhang,
after conservation.



Fig. 65:
North wall, Lotsawa Lhakhang,
after conservation.





Fig. 66: Interior, Lotsawa Lhakhang.



Fig. 67: Vairocana with surrounding frame, Lotsawa Lhakhang.

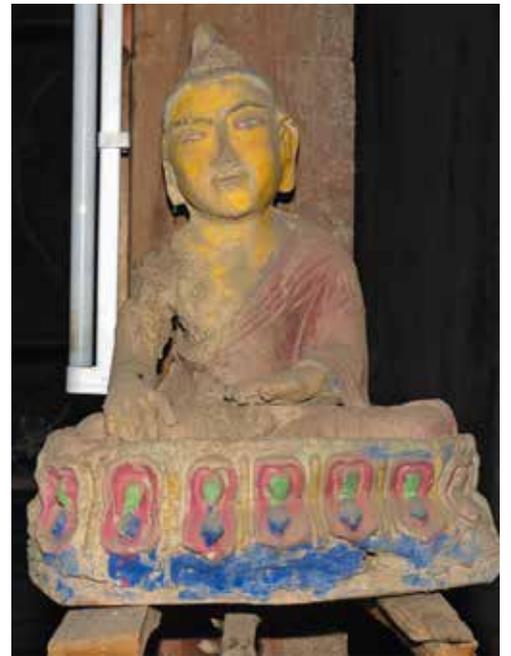
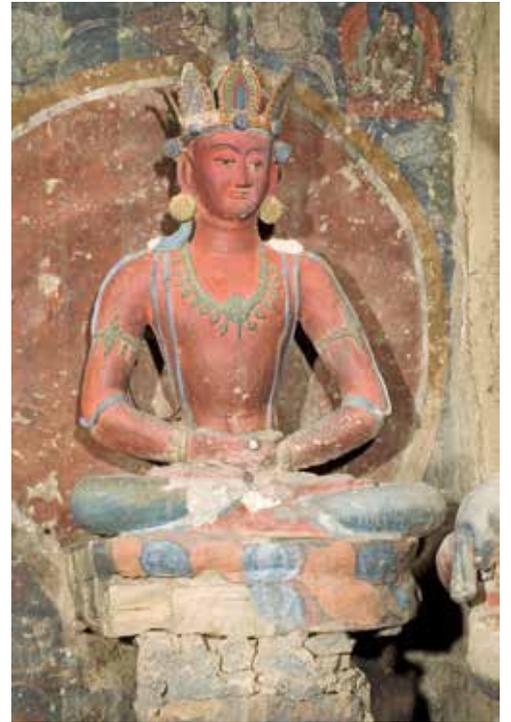
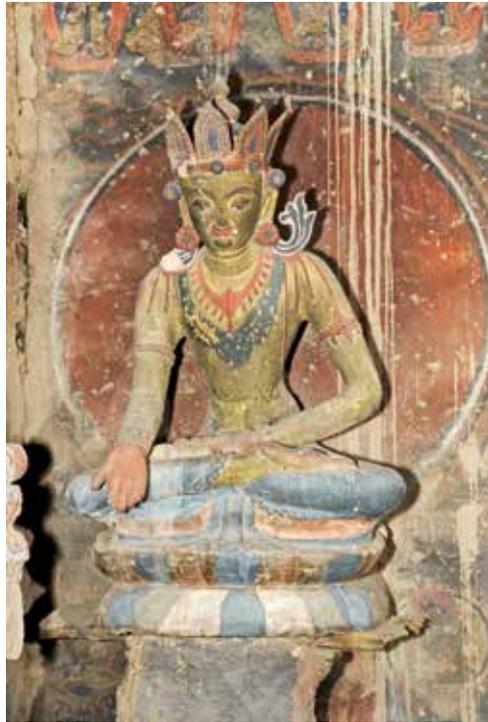


Fig. 68: Amoghasiddhi, Lotsawa Lhakhang.

Fig. 69: Ratnasambhava, Lotsawa Lhakhang.

Fig. 70: Amithaba, Lotsawa Lhakhang.

Fig. 71: Akṣobhya, Lotsawa Lhakhang.

Fig. 72: Tara, Lotsawa Lhakhang.

Fig. 73: Yellow sculpture, Lotsawa Lhakhang.

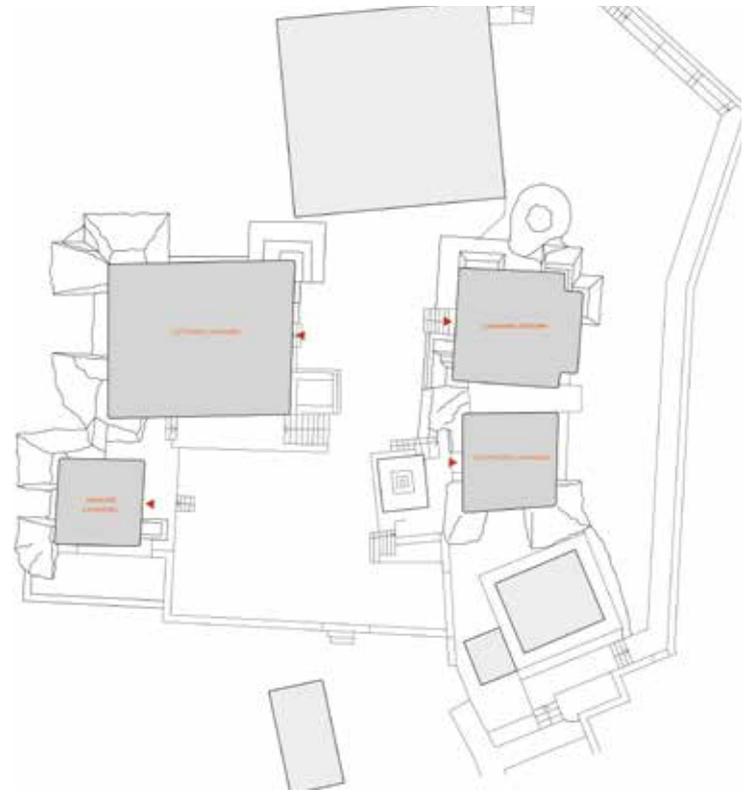
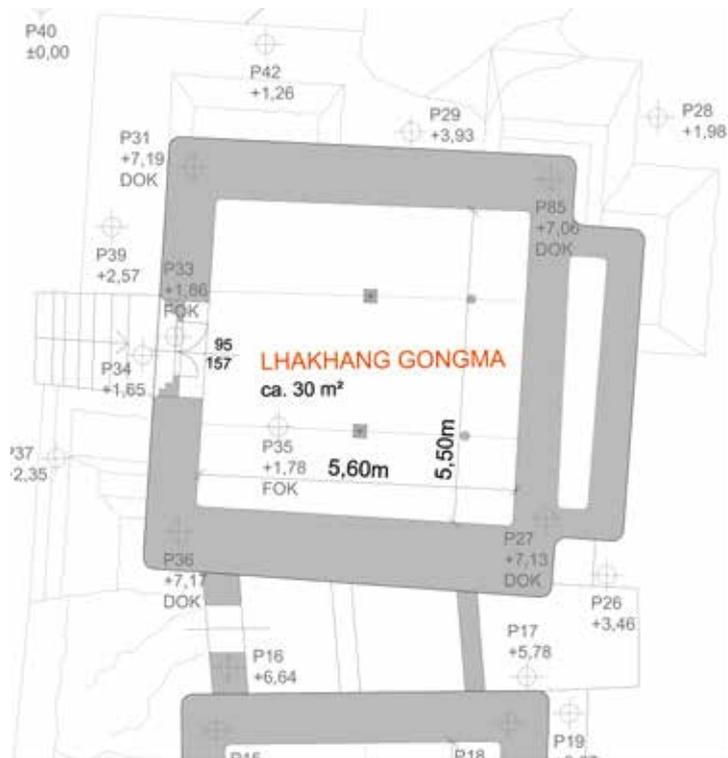


Fig. 74: Site plan and plan of Lhakhang Gongma.



Fig. 75: Temple building.



Fig. 76: Temple building.



Fig. 77: Interior, Lhakhang Gongma.

Fig. 78: Interior, Lhakhang Gongma.

Fig. 79: Tārā, Lhakhang Gongma.



LHAKHANG GONGMA

Fig. 80: North wall, Lhakhang Gongma, after conservation.



Fig. 81: South wall, Lhakhang Gongma, after conservation.





Fig. 82: East wall, Lhakhang Gongma, after conservation.



Fig. 83: West wall, Lhakhang Gongma, after conservation.

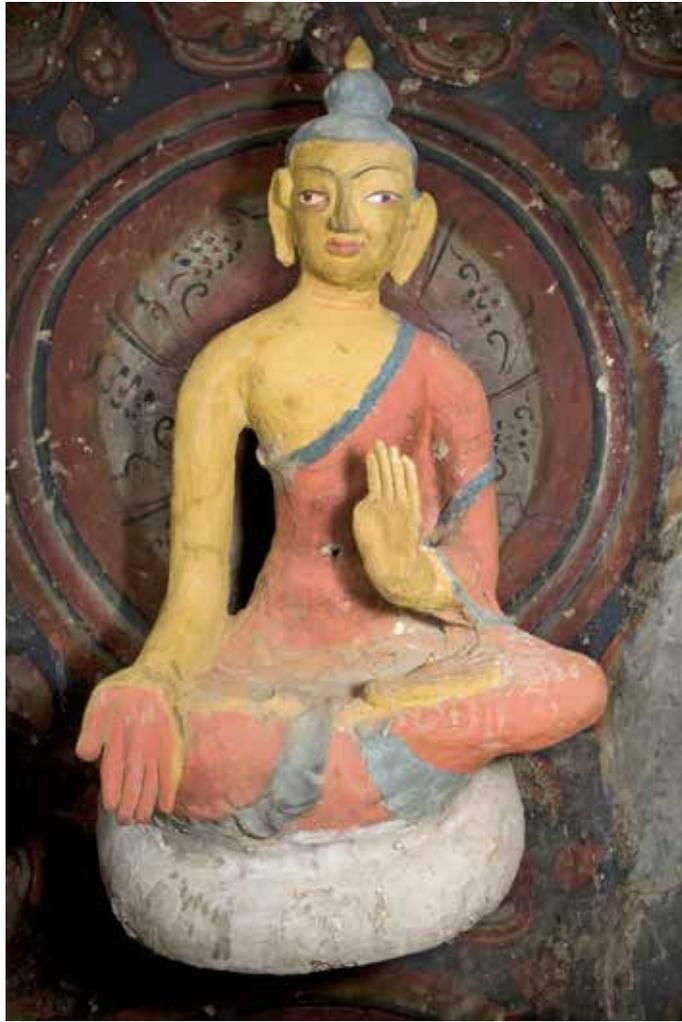


Fig. 84: Buddha 1, Lhakhang Gongma, after conservation.

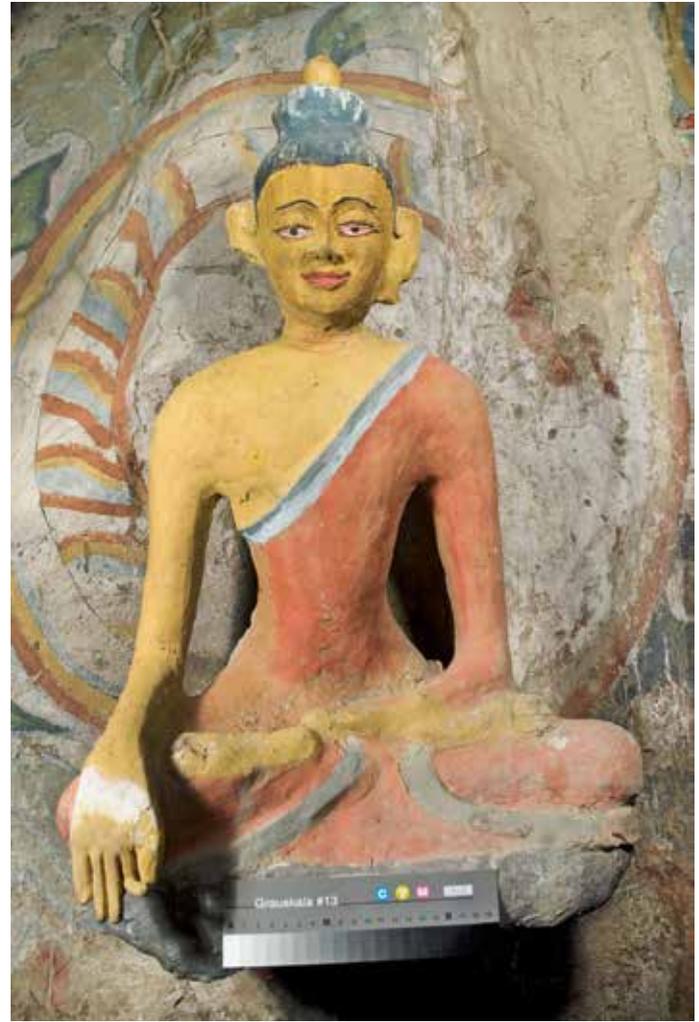


Fig. 85: Buddha 2, Lhakhang Gongma, after conservation.

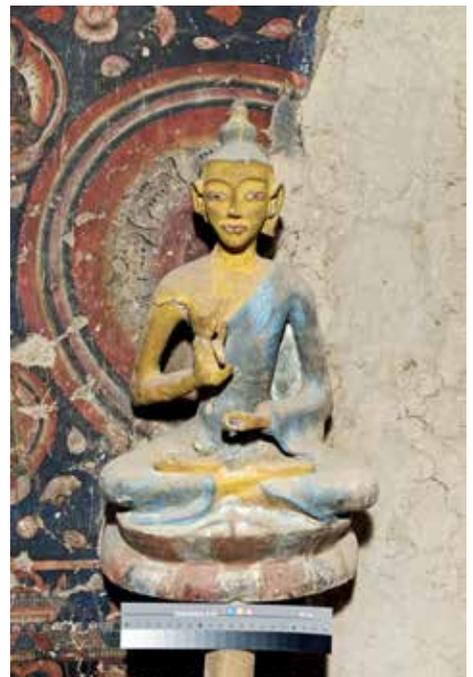
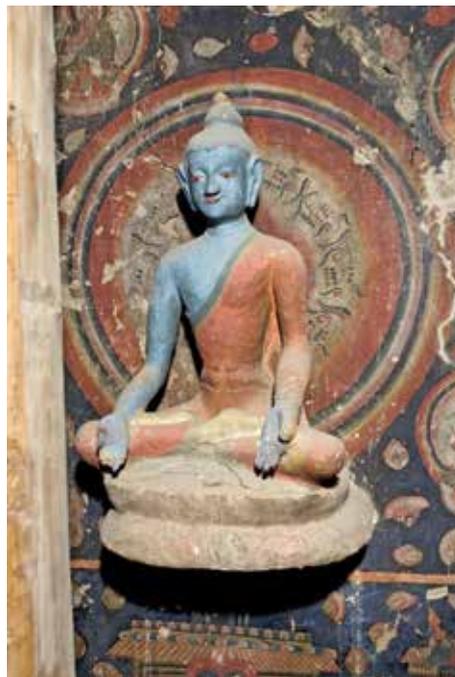
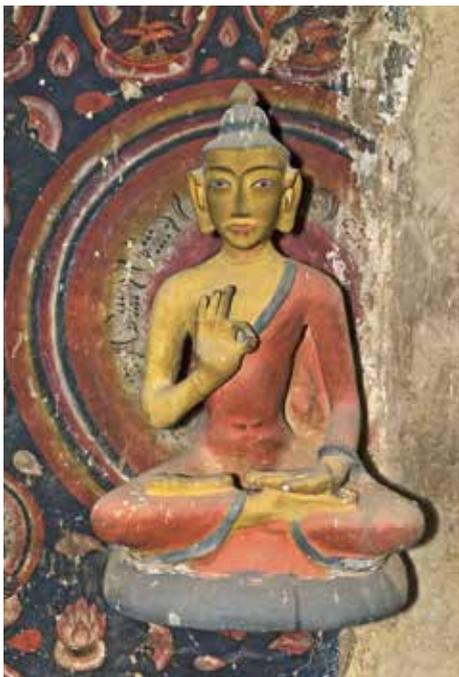
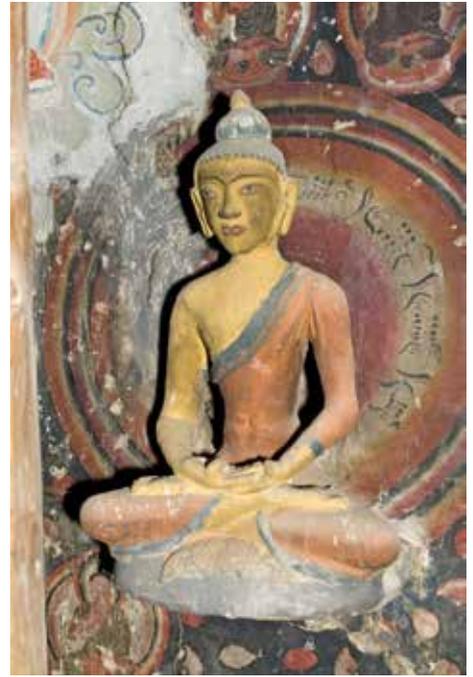


Fig. 86: Buddha 3, Lhakang Gongma, before conservation.
Fig. 87: Buddha 4, Lhakang Gongma, before conservation.
Fig. 88: Buddha 5, Lhakang Gongma, before conservation.
Fig. 89: Buddha 6, Lhakang Gongma, before conservation.
Fig. 90: Buddha 7, Lhakang Gongma, before conservation.
Fig. 91: Buddha 8, Lhakang Gongma, before conservation.

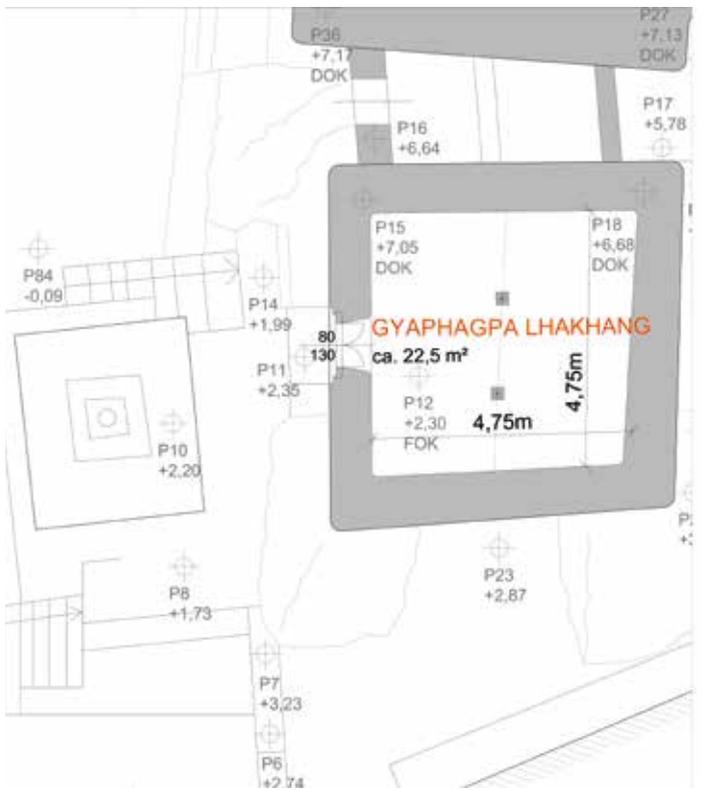


Fig. 92: Site plan and plan of Gyaphagpa Lhakhang.

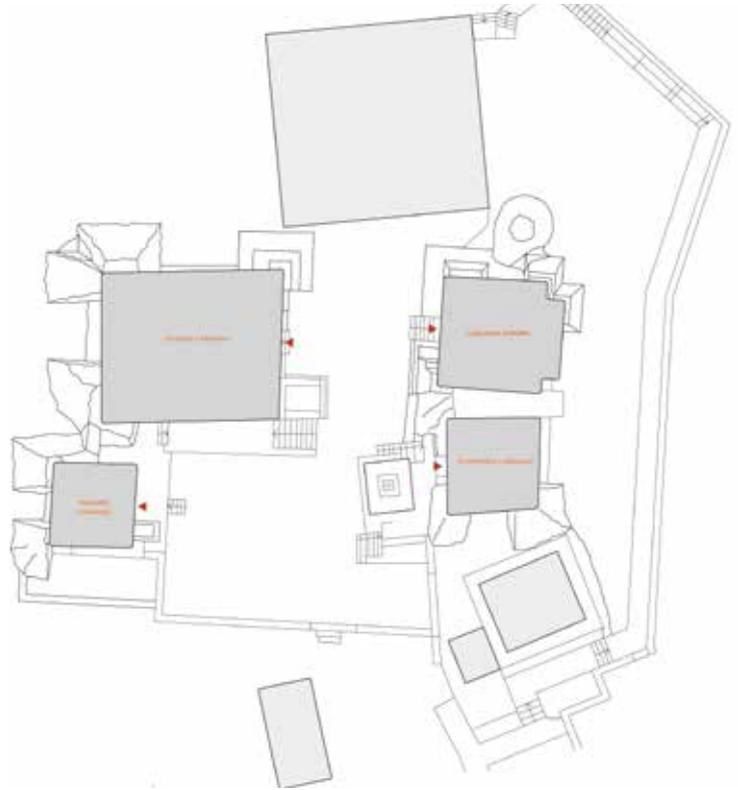


Fig. 93: Temple building.



Fig. 94: Temple building.



Fig. 95: Interior, Gyaphagpa Lhakhang.

Fig. 96: Ceiling, Gyaphagpa Lhakhang.



GYAPHAGPA LHAKHANG



Fig. 97: North wall, Gyaphagpa Lhakhang.



Fig. 98: South wall, Gyaphagpa Lhakhang.



Fig. 99: East wall, Gyaphagpa Lhakhang.

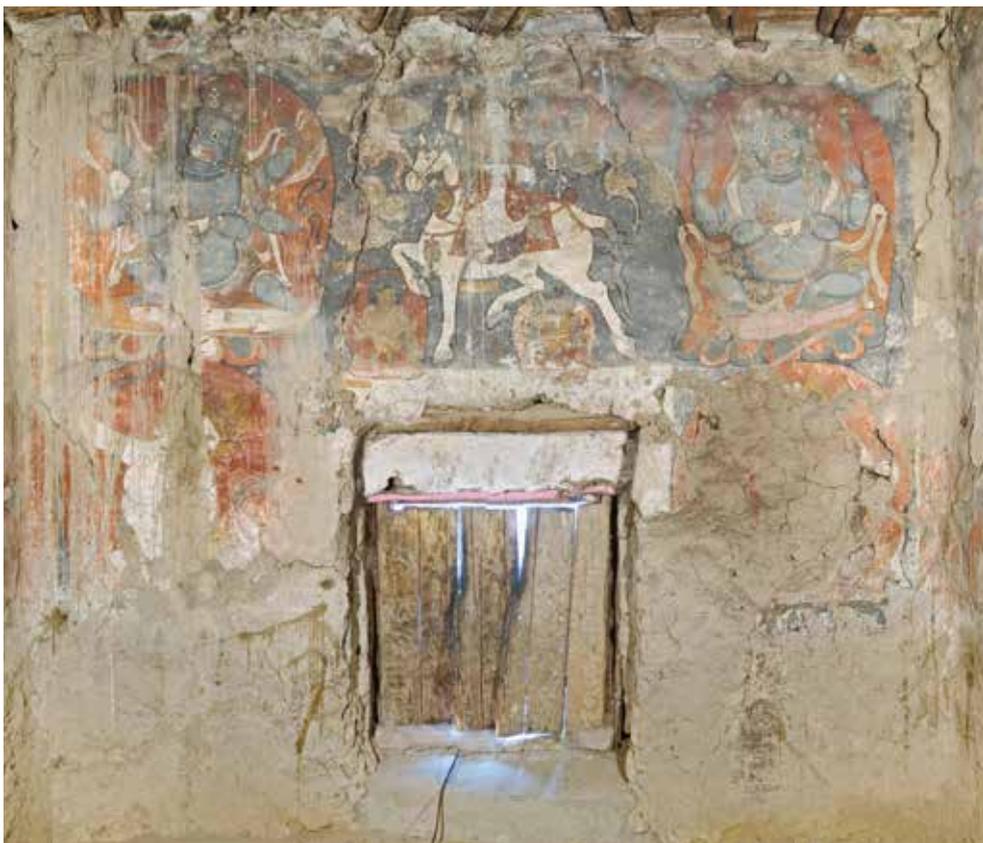


Fig. 100: West wall, Gyaphagpa Lhakhang.

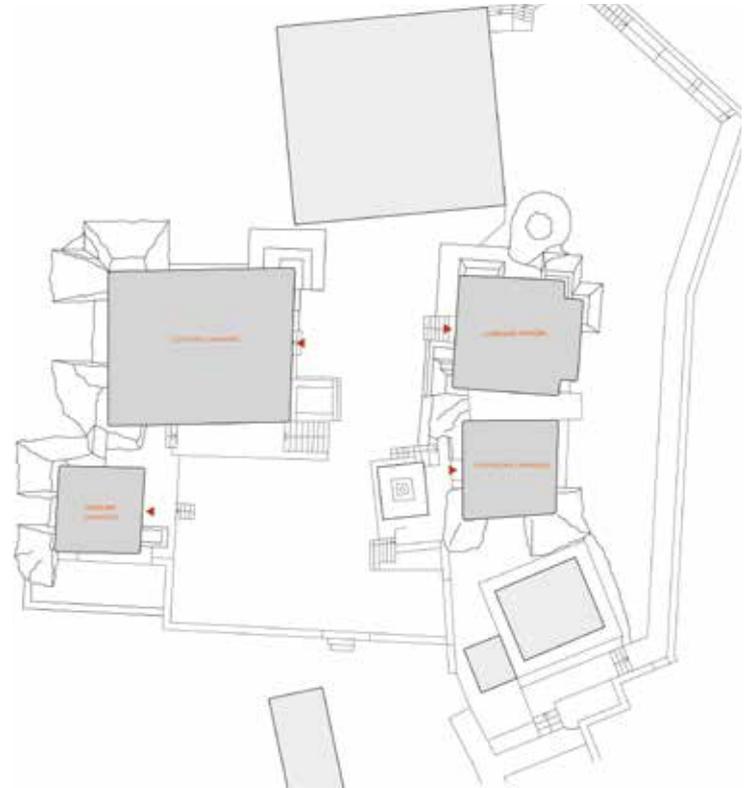
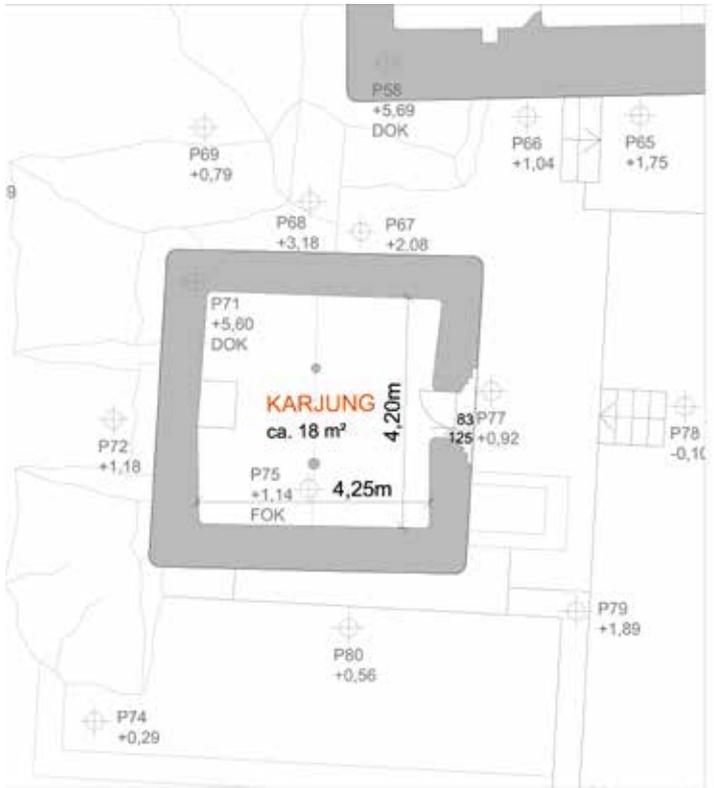


Fig. 101: Site plan and plan of Karchung Lhakhang.



Fig. 102: Temple building.



Fig. 103: Temple building.



Fig. 104: Interior, Karchung Lhakhang.

Fig. 105: Ceiling, Karchung Lhakhang.





Fig. 106: North wall, Karchung Lhakhang.

Fig. 107: South wall, Karchung Lhakhang.



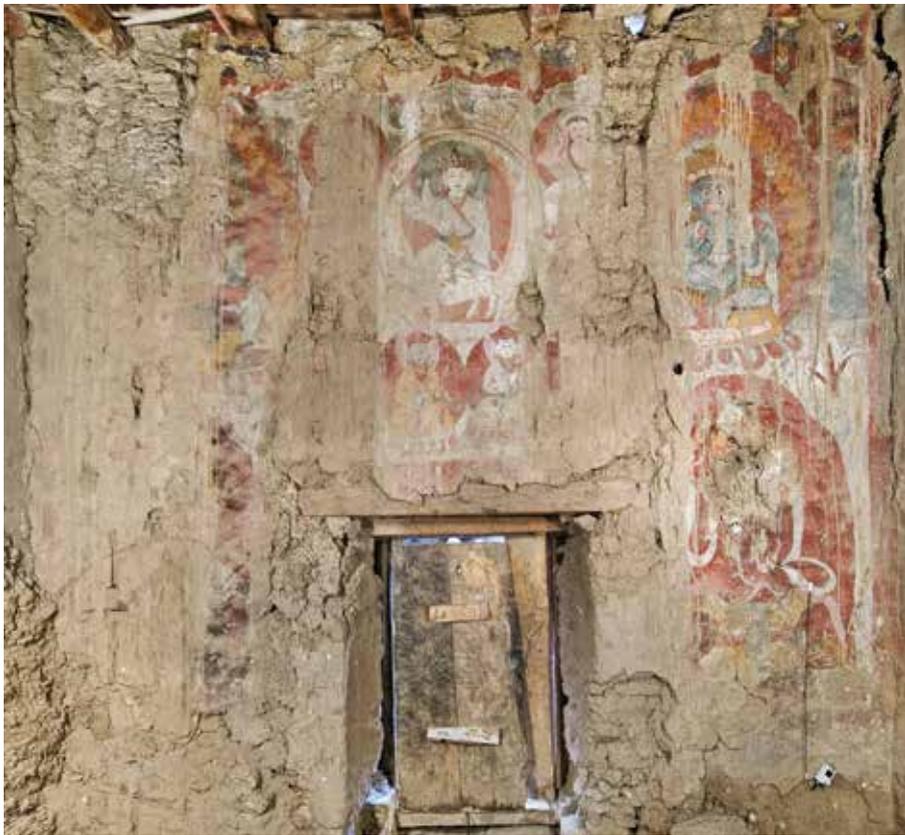


Fig. 108: East wall, Karchung Lhakhang.

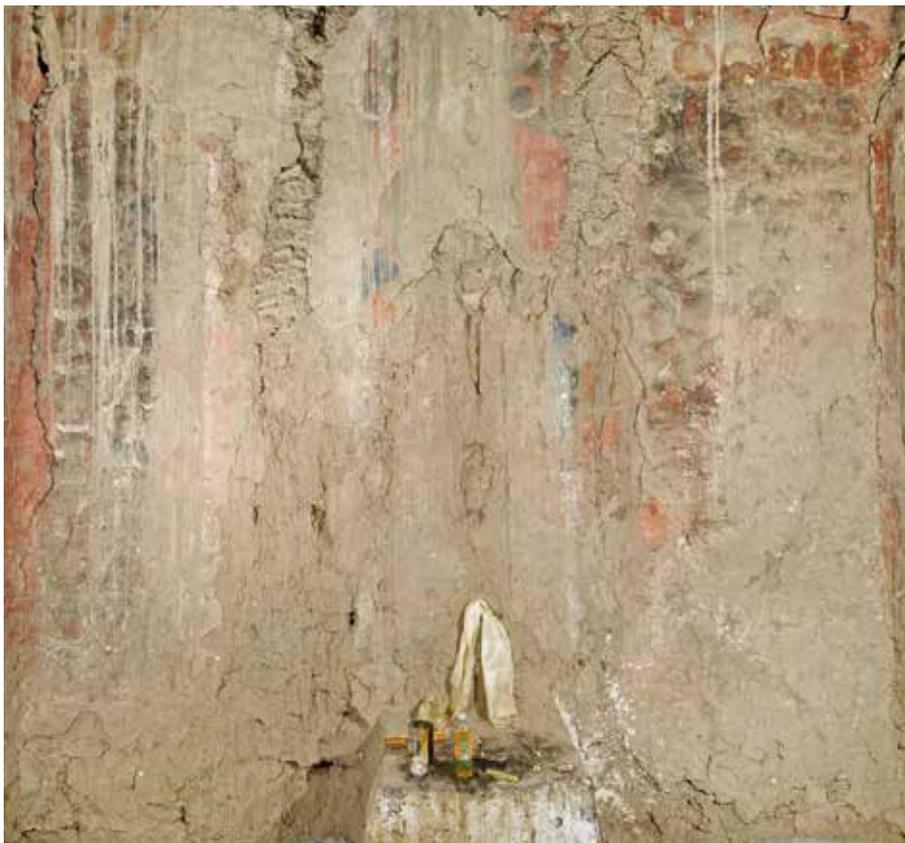


Fig. 109: West wall, Karchung Lhakhang.



2.1. Fifteenth-Century Wall Paintings of Nako's Religious Compound

Melissa R. Kerin

Nako is best known for its lustrous, gold impasto wall paintings of the 12th century, which are housed in temples located in the village's religious compound (fig. 110).¹ As has already been discussed in this volume, these large-scale compositions, executed in a Kashmiri-derived style, feature intricately detailed paintings depicting complex mandala configurations. Given their splendour, it is easy to understand how these murals, located in two of the four temples constituting Nako's religious compound, eclipse the other painting programmes at the site. Though lesser known, Nako's post-15th-century wall paintings offer paramount historical information about the village's shifting religious practices, as well as furnish insights into stylistic developments and changes from the 16th to the 18th century. This paper focuses on material from this period, which has otherwise gone unnoticed. Central to this discussion are the post-15th-century painting programmes in three of the four temples from Nako's religious compound: Gyaphagpa (*rGya 'phags pa*), Karchung (*dKar chung*), and Lotsawa (*Lo tsa ba*).² As each temple has *in situ* wall paintings executed in an idiom of the Ngari (*mNga' ri*) painting tradition of the late Medieval period, this analysis provides a much-needed survey of the style's idiomatic spectrum. This however, is not the only post-15th-century style used. Indeed, there is a c. 18th-century painting style used in parts of the Lotsawa and Karchung Temple, which will also be discussed. These paintings, and more specifically the iconographic information contained within, demonstrates Nako's long-term interest in the Kagyu (*bKa' rgyud*) Tradition, and more specifically in the Drigung (*Bri gung*) School.

Fig. 110: Nako (Lotsawa: south wall) Offering Deity, c. 12th century.

BACKGROUND

It is first necessary to outline the basic contours of the late medieval Ngari painting tradition, which is a revival of c.11th-century Western Himalayan interpretations of Kashmiri antecedents.³ The Ngari painting tradition originated at Guge royal centres such as Tholing and Tsaparang during the later part of the 15th century. In the initial phase of this style, artists were indebted to the earlier Kashmiri-based styles, as seen at Nako's Lotsawa Lhakhang and

1 I first had the opportunity to study Nako's religious compound while I conducted my doctoral dissertation work, generously funded by a Fulbright-Hays Doctoral Dissertation Research Abroad Fellowship in 2004–05. In the summer of 2012, with the support of a Lenfest Grant through Washington and Lee University, I had the opportunity to visit the Western Himalayan Archive, Vienna (WHAV) to review measurements and digital images of the painting programmes at Nako's religious compound. Lastly, I had time to write and revise this essay during an American Council of Learned Societies fellowship, 2014–15.

2 While conducting fieldwork in Nako (2004 and 2005), I could not study the fourth and last temple of the compound, which is commonly referred to as the Lhakhang Gongma. During this time, the temple's interior walls were veiled by a protective covering while the roof was being reconstructed. I eventually studied the temple through photographs at the WHAV, but did not find any evidence of post-fifteenth-century repainting.

3 For a more extensive discussion about the stylistic connections between Kashmiri and the Western Himalayan art, please see Linrothe 2014 with contributions by Melissa Kerin and Christian Luczanits.



Fig. 111: Tabo (Dukhang) Buddha and Bodhisattvas, 11th century.

Fig. 112: Tabo (Dukhang) Buddhas, 11th century.



Lhakhang Gongma (*Lha khang gong ma*), and at Tabo's Dukhang (*du khang*).⁴ The later Ngari (revival) style relies on Kashmiri-informed figures, decorative motifs and adornments. Figures 111–114 illustrate some of the ways that the 11th-century visual vocabulary has been deliberately reused in the later revival style, as evidenced by shared figural forms, garment types and deco-

orative elements of the Buddha figures. Some overarching similarities between the c. 11th-century and revival styles are found in specific details including head shape with a small, rounded *uṣṇīṣa*, double widow's peak, small mouth and a particular chin line that does not fully connect with the neck. Instead there is a little gap between the two that is often filled in with shading (see figures 112 and 114). Other distinctive physical features are long, heavy-lidded eyes framed by wide, arching eyebrows. When studying Bodhisattvas and female offering deities of both periods (figs 110 and 115), one can see consonances between female figural forms with pinched waists, shoulder sashes, and revealing bodice garments. These are only a few of the many 11th-century Kashmiri stylistic elements that have been reused in the revival style of the 15th–17th century.

This is not to say that artists of the revival style only used Kashmiri archaisms and that the style stayed within the Guge court. Over the two hundred years that the style was in use, it spread throughout Ngari and even beyond it, to the regions of Ladakh and Zangskar.⁵ It is in large part because of this style's extensive geographic scope—Khunu/Kinnaur, Spiti, Guge,

4 For more information on the stylistic relationship between the Kashmiri-based style of the Western Himalayan and the late medieval Ngari painting tradition, please see Kerin 2014: 154–161.

5 For examples of Ladakh's iteration of the Ngari painting tradition see paintings from the Koelz collection at the University of Michigan Museum of Art. These paintings are of incredible value in part because their find-spots were carefully documented, which helps in tracing the style's geographic range and idiomatic scope.



Fig. 113: Nako (Gyaphagpa: east wall)
Śākyamuni Buddha, c. 16th century.

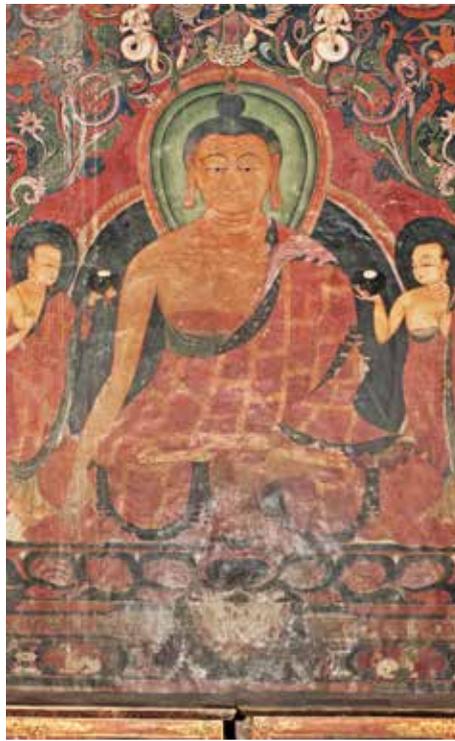


Fig. 114: Tabo (Serkhang/"Golden" Temple)
Śākyamuni Buddha, c. 16th century.



Fig. 115: Nako (Lotsawa: apse) Green Tārā,
c. 16th century.

Purang and other areas that were once part of Ngari—that I use the term Ngari, instead of Guge, to name this style.⁶ This widely used style, in and beyond Ngari, had well-defined stylistic elements; many of the Kashmiri elements have already been discussed. There were oth-

⁶ By using the broader term Ngari, one will not limit the style's geographic scope and patron-base to the kingdom whence the style originated. For more than geographic zones that the Guge Kingdom controlled see Ryavec 2015: 118–121.

ers, however, such as the elaborately filigreed nimbuses adapted from Newar art traditions⁷ or textile motifs featuring Chinese patterns of flying phoenixes and chrysanthemums.⁸ While neither of these motifs were part of the original Kashmir aesthetic that catalysed the revival, these elements and others became central components to the Ngari painting tradition of the 15th–17th century.

By the time this style was used in the late 16th century—the period for the three examples discussed in this essay—there were multiple ateliers working in various idioms.⁹ Each is a different permutation of the larger regional style. Nako’s wall paintings demonstrate the ways in which a single site can readily accommodate multiple styles and sub-styles, which allow one to trace stylistic developments. While this style’s idiomatic variation is well represented at Nako, the chronological ordering of the sub-styles remains opaque. As none of Nako’s paintings can be concretely dated through inscriptional evidence, the chronological order of these different idiomatic expressions remains uncertain. Moreover, questions and uncertainties about the chronology for the larger painting tradition loom large in the field. Not a single extant painting executed in this style—*in situ* or otherwise—has yet been dated based on internal or inscriptional evidence. The working range of dates is based on textual evidence from the 17th century.¹⁰ I speculate that the Ngari-style wall paintings at Nako’s compound were each painted during the second half of the 16th century, when repainting may have been the result of new or perhaps renewed religious activity in a specific school of the Kagyu Tradition.

All of the post-15th-century murals at Nako’s religious compound, however, were not the product of the late medieval Ngari painting style. Indeed, the paintings of the 18th century, located on the east walls of the Lotsawa and Karchung Lhakhang, are executed in a completely different style that favoured heavy figural forms, thick line work, and limited palette. Unlike Nako’s 16th-century paintings, these paintings do not relate to a discernable, transregional stylistic trend. Without having found comparanda from other villages, dating and defining this style and its geographic spread remains a challenge. Based on the present extant material evidence, it seems likely that these paintings were the product of a local workshop in operation in and around Nako.

7 Jackson 2010: 86. See number 5, which addresses decorative scrollwork patterns.

8 In the early stage of the revival style, artists favored textile patterns that reflected 11th-century Kashmir aesthetics such as roundel patterns, tie-dye, or reverse-dye designs. These designs were enhanced, and then eventually replaced by, Chinese motifs, such as phoenixes, cloud patterns and peony or chrysanthemum designs. By the later part of the style’s development, these textile motifs were abbreviated to simple x-marks and circles.

9 See Kerin 2014 and 2015.

10 The 17th-century Tibetan text *Vaidūrya gSerpo* has been used to gauge rough dates for some temples in Tholing and Tsaparang. Christian Luczanits has suggested that the *Vai-ser* text confused the dates of two temples, commonly referred to as the White and Red Temple, at Tsaparang (Luczanits 2009: 145). While the details of Luczanits’ argument are presently speculative, his concerns and insights about style and chronology are valid. Indeed, the paintings at the White Temple are sensitively rendered with an eye toward decorative details of textiles and body adornments, as well as toward modeling of figural forms, which should compel art historians to grapple with where the White Temple fits in the current chronology. There is a great deal of work to be done on the temples at Tholing and Tsaparang to understand better their many sub-styles and complex chronology. For more on this see: Sangs rgyas rgya mtsho 1960; Tropper 2010b; Luczanits 2009: 133–50.

GYAPHAGPA LHAKHANG¹¹

The Gyaphagpa Lhakhang has the most complete post-15th-century iconographic programme and stylistic content of the compound temples. Unlike the Lotsawa and Karchung Lhakhang, which have at least two or more post-15th-century painting phases, the Gyaphagpa is the only temple within the compound that is painted in a complete, though damaged programme conceived and executed as part of a single stylistic and iconographic plan.¹² This 5.6 x 5.4 m single-cell temple provides rich iconographic and stylistic information that sheds light on the second half of the 16th century, when this painting programme was likely added to the temple. Iconographically, the temple's 16th-century programme clearly demonstrates a Drigung Kagyu affiliation.

Style

The painting style used at Gyaphagpa is strongly associated with the 16th-century paintings from Tabo's Serkhang (*gSer khang*), also known as the Golden Temple, which are part of the larger Ngari painting tradition. As has been discussed elsewhere, the artists at Nako looked to the Serkhang paintings as models.¹³ This stylistic connection to Tabo is not surprising given the relative proximity of the villages. Tabo, approximately 65 km away from Nako, was a religious and artistic hub of activity since the 11th century. Undoubtedly, the artists at Nako were in contact with this village and any local artists would have known of Tabo's paintings. One can see especially strong resonances between the Gyaphagpa and Serkhang images of Śākyamuni Buddha, for instance (figs 113–114). Both figures are enthroned on an ornate lotus pedestal with an elaborate surround composed of scrolling *makara* tails, and both wear robes rendered with similar drapery and folding patterns at the chests, proper left shoulders and elbows, and legs. Correspondences are also evident when one compares the faces of these two Śākyamuni Buddhas. Here, the most striking parallel is in the shape of the eyes: elegantly arched eyebrows are placed above long, fleshy-lidded eyes. Each figure has a subtle double widow's peak and a rather round face. Heads are similarly shaped by a line that curves past the ears and tapers at the lobes, which creates a distinctively wide head shape characteristic of the Ngari painting tradition (figs 116–117). The figures also share the same ear shape. The edge of the upper portion of the ear, known as the helix, curves into a slight indentation. The elongated and thick lobes flare out slightly from the face, with a second line painted to indicate the widths of each lobe.¹⁴ Where the helix and lobe meet is the exact point where the blue hairline ends. This particular detail reveals just how closely the artists of the Gyaphagpa Lhakhang were referencing the paintings at Tabo's Serkhang. Unfortunately, mud covers much of the Gyaphagpa Buddha, preventing a fuller visual comparison of the lips, jawline and neck.

11 For an elaborate analysis of this temple's iconography and style, please see Kerin 2015.

12 Pieces of an earlier painting programme can be seen in several places throughout the temple. The patches of an older painting layer are not large enough to discern any stylistic information. Nonetheless, the presence of this older painting programme ensures that the temple structure is older than the 16th century and may very well date to the 12th century, making it coeval with the other three temples in the compound (Rickerby 2003:4, 8). Rickerby observes, "The stratigraphic characteristics of the concealed schemes [at the Rgya 'phagspa and dKarchung temples] clearly resemble those of the 12th-century paintings in the two main temples." (*ibid.*: 8).

13 See Kerin 2015, chapter four. The underlying assumption here is that the Golden Temple pre-dates the Gyaphagpa.

14 This feature is a defining characteristic of the early phase of the Ngari painting tradition.

Fig. 116: Nako (Gyaphagpa: east wall)
Śākyamuni Buddha, detail of face.



Fig. 117: Tabo (Serkhang) Śākyamuni Buddha, detail of face.



While there are many other similarities between these painting programmes, such as the figures of monastic attendants around the Buddha, from whose three-quarter profiles project far eyes and eyebrows, there are also significant differences. Even the most perfunctory of comparisons will demonstrate that the Serkhang has a level of articulation and detail lacking from the Gyaphagpa Lhakhang, the paintings of which are pared down in both content and decorative detailing. These differ-

ences are likely due to a number of factors, such as date and patronage. Gyaphagpa's paintings, if the proposed chronology is correct, were made at least fifty years later, which would mean a different generation of artists. Moreover, given Tabo's history of royal patronage, combined with the extraordinary materials and extensive detailing of the Serkhang paintings, it is possible that courtly patrons funded the Serkhang murals. The lackluster materials and coarser brushwork of Nako's Gyaphagpa paintings, however, suggest that they were not the product of royal patronage or a courtly atelier, but rather a local iteration of what was once a royally associated style.

Iconography

The iconographic and inscriptional information housed within the Gyaphagpa illuminates the otherwise little-known Drigung Kagyu activity in the Kinnaur region. Two critical pieces of visual evidence at the Gyaphagpa Lhakhang point to this painting programme's—and by extension that of the temple—Drigung Kagyu affiliation. The first is the identity of the protector figure located above the door on the west wall, which previously had been identified as the epic hero, Gesar (fig. 118).¹⁵ The iconographic traits of the horse-mounted figure, along with the identifying inscription, suggest a different identity. The inscription *A chixxs kyi sgron ma la na mo* is likely a phonetic spelling of *A phyi chos kyi sgron ma la na mo*, which can be translated as "Homage to Achi, the Dharma Lamp!" who is a protectress of the Drigung School.¹⁶ Wearing a red tunic and pale pink boots, she sits atop a horse holding a skull-cup (*kapāla*) at her chest while her right hand holds a double sided hand drum (*damaru*). Surrounding her are

15 Francke 1992^{III}: 32; Tucci and Chandra 1988: 171; Thakur 1996: 349.

16 There are several spellings of her name. At Nako "...sgron ma" is used instead of the now commonly used *sgrol ma*. Nako's spelling may relate to a more antiquated moniker for this deity.



three of her entourage, all riding horses and clad in robe-like garments and boots signifying their roles as dharma protectors.¹⁷ Achi enjoys a privileged place in the Drigung Tradition as she is considered both a dharma protector and the great-grandmother (as evidenced by her name *A phyi*, which means grandmother in Tibetan) of the 12th-century founder of the tradition, Jigten Gonpo (*Jig rten mGon po*). It is his portrait, in fact, that serves as the second piece of evidence substantiating the temple's Drigung association. On the north wall, an inscribed image of Jigten Gonpo is positioned over Vajradhara's left shoulder (fig. 119).

Other than these two critically important pieces of evidence, there is little else to suggest Kagyu, let alone Drigung, affiliation at the Gyaphagpa Lhakhang. For instance, this temple's painting programme lacks the iconic Kagyu presence of Milarepa (*Mi la ras pa*) or Marpa. Instead of highlighting a conventional lineage that includes Nāropa, Marpa, Milarepa and others, the Gyaphagpa painting features an obscure six-teacher lineage painted on three of the four walls. The north, east and south walls each display two portraits, roughly the same size and situated at the same height and position within the walls' composition.¹⁸ The lineage begins with Vajradhara and continues with Jigten Gonpo. Three of the six lineage members have complete identifying inscriptions, but it is still very difficult to discern exactly which Drigung lineage is presented on these walls. As the names do not correlate with documented Drigung lineages, I suggest that this may be a locally recognized tradition.¹⁹

LOTSAWA LHAKHANG

In a temple measuring roughly 8 by 8.5 m and at a height of nearly 6 m, the elaborate 12th-century wall paintings, along with the coeval sculptural programme, have impressed Western visitors since they were recorded by Francke in the early 1900s.²⁰ Indeed, much of the scholarly documentation and discussion about this temple relates to its minutely detailed and

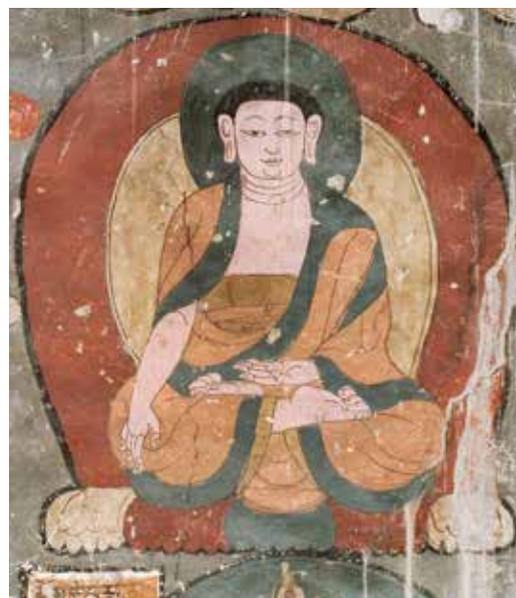


Fig. 118: Nako (Gyaphagpa: west wall) Achi, Protectress of Drigung, c. 16th century. her identifying inscription is circled in white.

Fig. 119: Nako (Gyaphagpa: north wall) Jigten Gonpo, 12th-century founder of the Drigung School.

17 Linrothe and Watt 2004: 19.

18 The west wall does not have any lineage portraits as it comprises protector deities.

19 For more on the lineage please see Kerin 2010.

20 Francke 1992^{III}.

gold-embellished paintings and the painted clay sculptures of the site.²¹ This temple offers at least two other painting styles, however, that have not yet been analysed or published.²² One of the two repainted sections is located in the apse of the temple, which can be roughly dated to the later 16th century, and the other 18th-century programme is painted over the entrance wall. Though these two sections are from different centuries and are executed in dissimilar styles, they share some iconographic information that upholds the temple's Kagyu and even Drigung affiliation.

Style: Apse

The painting style found in the apse combines Ngari's revival painting tradition with elements and motifs of Newar-based styles, which circulated throughout much of Tibet and Mustang from the 13th through the 16th century.²³ As previously discussed, Ngari artists incorporated Newar elements, such as filigree painted nimbuses, into the revival style. What unfolds on the walls of the apse, however, suggests even more adaptation of Beri motifs. Of particular note are hairlines framed with soft curls, wavy eyebrows and lollipop-like trees that decorate or frame the composition (figs 120–121).²⁴



Fig. 120: Nako, (Lotsawa: apse) Tseringma and attendants in apse, c. 16th century.



Fig. 121: Nako, (Lotsawa) Tseringma face detail.

- 21 Tucci and Chandra 1988: 141–173; Klimburg-Salter 1997; Di Mattia 1997:185–238; Thakur 1996; Luczanits 2003b.
- 22 Small sections of the apse have been repainted in other, more recent styles. An example of this can be seen on the southwest wall of the apse. These smaller patches of repainting tend to be repairs of sections that have been badly damaged. They have not been analyzed here because there is not enough substantive material to discuss either style or iconography.
- 23 Jackson (2010) discusses the range of the Newar or Beri style and its applications in Tibet and Mustang. He and I differ in that he groups the Ngari painting tradition as part of the Beri stylistic family. While there are some important connections between the two styles, I maintain that the Ngari tradition is a discrete painting tradition that incorporated Newar elements into a Kashmir-dominant visual vocabulary. This does not mean, however, that Beri sub-styles were not in circulation in Guge and Ngari more generally during the 15th–16th century. They were. Moreover, there were some hybrid styles that developed, which drew heavily from elements of both, but did not overtly depend on one or the other.
- 24 These Newar-inspired motifs of face-framing hair curls and wavy eye brows can easily be seen at Shalu's various temples and circumambulation halls, as well as at other sites such as Mustang and Gyantse. For images see Ricca 1997: 198, 200; Neumann 1997: 181. For examples of lollipop-like trees used to decorate and frame compositions see Jackson 2010: 98, 110.

While there are strong correspondences with Newar trends, the predominant visual vocabulary employed in this painting programme is based on the forms of the Ngari painting tradition. One can easily discern resonances between figural types when looking at the Buddha figures (fig. 122) and Green Tārā (fig. 115). The Buddha figures have a small, round *uṣṇīṣa*, double widow's peaks and squared chins. With the female figures such as Green Tārā, one can see how the bodice and figural type reflect characteristics of the Kashmiri-inspired revival style. Other elements, however, such as pronounced nostrils and articulated lips with indentations at the corners of the mouth (fig. 121), cannot necessarily be claimed by either the Newar or Ngari painting traditions and should be understood as particular nuances of this workshop. The combination of these different stylistic elements results in a vibrant sub-style that relies heavily on the revival tradition from Ngari but readily incorporates other elements from Beri and likely local traditions.

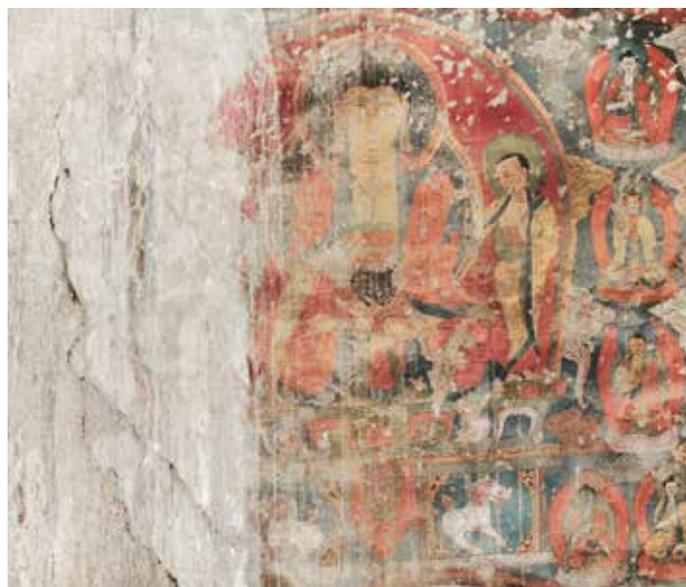


Fig. 122: Nako, (Lotsawa: apse) Śākyamuni Buddha with attendants and smaller Buddha figures in apse, c. 16th century.

Style: East Wall (Entry/Exit Wall)

The majority of the east wall, which is also the entrance to the temple, is painted in a style that dates to at least the 18th century.²⁵ The stylistic hallmarks include: the appearance of heavy garments; thick and broad facial features, such as the nose and lips; a limited and unmodulated palette of whites, blues, greens, yellows and reds; coarse outlines; and disproportionate bodies (fig. 123). Though I did not find painting programmes comparable to this one from the surrounding villages of Chango, Li, Malling, Tashigong and Tabo, one can see a similar style used at Nako's compound. The east wall of the Karchung Lhakhang, positioned next to the Lotsawa Lhakhang, is painted in the same style, though not by the same artist; this painting will be discussed later in this essay.



Fig. 123: Nako, (Lotsawa: east wall) Achi on horse surrounded by attendants, c. 18th century.

Iconography: Apse – West Wall

As previously discussed, the three walls creating the western apse of the 12th-century temple have been repainted in a 16th-century style though some of the older original paintings remain, as do sculptural forms of the five Tathāgatas.²⁶ The apse's 16th-century painting pro-

²⁵ Portions of the wall have been repainted in bright colours since the 18th century; these sections will not be discussed here.

²⁶ For more information about the five 12th-century sculptures see Luczanits 2004: 77–88.

gramme is missing large sections due to erosion, which gives the remaining extant material a rather unorganized appearance. Nonetheless, part of what does remain demonstrates a clear association with the Kagyu Tradition.

Starting with the west wall, which is the back wall of the apse, there are two surviving sections, one at the upper left and the other at the upper right. The upper left section is a continuation of the southwest wall and will be discussed later. The main organizing feature of the upper right section is the presence of Milarepa (1052–1135) (fig. 124), one of the early founders of the Kagyu Tradition. Around him are clustered a number of figures. On either side of Milarepa are two of his primary disciples, Gampopa (*sGam po pa*) on the proper right and Rechungpa (*Ras chung pa*) on the proper left. Surrounding this triumvirate is a grouping of seven ascetics; none of them has any accompanying inscription, making it difficult to identify their specific lineage. Six of the seven are clad in a white cloth, which is representative of their association with the ascetic school that developed around Milarepa's disciple Rechungpa. Though barely discernable, the seventh figure wears a red, as opposed to white, robe. He is most likely meant to be Marpa, Milarepa's teacher, who is often depicted in red and in relation to Milarepa. Below this lineage sits a small figure on a tiger skin rug, holding his hands in the teaching gesture (fig. 125).²⁷ This very well may be the Indian ascetic Padampa Sangye (*Pha dam pa sangs rgyas*), who is strongly associated with Milarepa but also with early Drigung activity. As Rob Linrothe has carefully documented, it was indeed common to find images of the Indian yogi Padampa Sangye in Drigung iconographic programmes from the 13th to the

Fig. 124: Nako (Lotsawa: apse) Milarepa with Padampa Sangya circled, c. 16th century.

Fig. 125: Nako (Lotsawa: apse) Detail of Padampa Sangya.



²⁷ I thank Dr. Andrew Quintman, Princeton University, for assisting me in these identifications. He generously answered my questions and cautiously suggested the identifications for Marpa and *Pha dam pa sangs rgyas*. For more on Milarepa see Heruka and Quintman 2010.

15th century in the Western Himalayan region.²⁸ His hypothesis is based on material found in various temples in Ladakh at Alchi, Wanla and Phyang, as well as in Zangskar.

As there is no identifying inscription labeling this figure as Padampa Sangye, one must depend on the iconographic information. The figure on the western apse of the Lotsawa Lhakhang corresponds with basic conventions that mark the identity of Padampa Sangye. For instance, both Padampa Sangye and this figure are dressed in a white cloth from the waist down while his upper body is bared. As Dan Martin explains, Padampa Sangye's nakedness was "both a symbol and expression of simple living, a matter of asceticism, not libertinism."²⁹ The Nako image also shows a characteristic posture of Padampa Sangye, with the figure's knees drawn up to his chest while he holds his hands in a teaching gesture, a depiction that is apparently common in Western Himalayan paintings of the 14th and 15th century.³⁰ Perhaps one of the more telling identity markers is the figure's skin tone, which is browner than the pink skin of the other practitioners. Moreover, in the Nako image, as in almost all images of Padampa Sangye, the figure's hair is rendered with curls or knots of black hair. The darker complexion and textured hair undoubtedly serve as signs of his South Indian ethnicity. Thus, this Nako image strongly corresponds with established iconographic forms for Padampa Sangye.³¹ That this figure is strongly associated with Drigung³² further substantiates the Drigung presence already found at the Gyaphagpa Lhakhang in Nako's religious compound.

Iconography: Apse – Southwest Wall

Specific connections to Drigung are not found, however, in other sections of the apse. At the highest, central portion of the southwest wall, for instance, Śākyamuni Buddha is depicted sitting on a lion throne with what had been two attendant figures; water damage destroyed one of the flanking attendants (fig. 122). On both sides of Śākyamuni are smaller Buddha figures depicted in various colours and holding different *mudrās*.³³ Due to water damage, it is difficult to see how many Buddha figures are painted on the left side of the composition. The right side appears to have sixteen small Buddhas, organized into four rows. This group of diminutive Buddhas continues on the upper left section of the west (back) wall, briefly mentioned earlier. This group of Buddha figures holds different *mudrās* and positions and is painted in a variety of different colours. It is possible that this group of figures is meant to be the 35 Buddhas of Confession.

Well below this group of Buddhas are several other figures. A group of five female figures is painted directly under the 12th-century sculpture of Amoghasiddhi (figs 120–121). This group is known as the Five Sisters of Long Life (*Tshe ring mched lnga*), a set of pre-Buddhist protector deities who, according to legend, were converted to Buddhism and became protectors of the dharma after their encounter with Guru Rinpoche (Padmasambhava) in the 8th century. They also became disciples of Milarepa, who is depicted on the western (back) wall of the apse. In the Western Himalayas, it seems their presence, like Milarepa's, is strongly related

28 Linrothe 2009: 98, 2007: 65–71, 2006: 115–123.

29 Dan Martin 2006: 117.

30 Linrothe 2007: 69. Dan Martin also mentions the teaching gesture used in standard depictions of *Phadam pa sangs rgyas* (Martin 2006: 118).

31 The northwest wall is in such a state of disrepair that iconographic analysis is not possible.

32 Linrothe 2009: 98.

33 On the proper right side of the large, central Buddha figure, the smaller Buddha figures were repainted at a later point, as their brighter colours indicate.

to the Kagyu Tradition. At the centre of the group is Tashi Tseringma (*bKra shis tshe ring ma*), riding the white lion with a green mane. She holds a vajra in her proper left hand and a vase in her right. On the left side of the composition are two figures. The upper is Miyo Lozangma (*Mi gyo blo bzang ma*) who is yellow in colour and rides a tiger. Below her is Tingi Shelzangma (*mTHing gi zhal bzang ma*), the blue-faced protectress who holds a mirror and is mounted on a wild ass. To the right is another pairing. The upper protectress, Chopen Drinzangma (*Cod dpan mgrin bzang ma*), red in colour is astride a stag, while the last of the group, Tekar Drozangma (*gTal dkar 'gro bzang ma*), is green in colour, though the hue on this wall painting is quite faded. She sits on a blue dragon that offers a wish-fulfilling jewel in its right claw.³⁴

Iconography: East Wall (Entrance/Exit)

The iconography of this section, which was painted about the 18th century, is of great significance as it features an image of the previously discussed historical/legendary figure known as Achi, the protectress of the Drigung School, and her retinue; their presence serve to underscore the temple's 18th-century Drigung affiliation (fig. 123). They are not, however, the main focus of the east wall. Rather, the centre of the composition is located over the temple's door and features the Five Sisters of Long Life galloping in the sky. As seen in the apse, Tseringma is seated on a snowlion surrounded by her four sisters. Seated above Tseringma is an image of Guru Rinpoche, and to the right of him is Milarepa with his right hand to his ear. Located below the group of five women are four male figures, the direction guardians. Given their iconographic details, all these figures are easily identifiable. From left to right: Vaiśravaṇa, Virūdhaka, Dhṛtarāṣṭra, and Virupākṣa.

To the left of this central portion of the east-wall composition, there is an image of Achi on horseback surrounded by four other mounted figures (fig. 123). White-skinned and crowned, she is clad in voluminous robes and boots. In her left hand she holds a skull cup and in her right a double-sided drum. While there is no identifying inscription, the figure's attire, skull cup and drum help to identify her as Achi, the protectress of the Drigung Kagyu Tradition. This form of Achi resembles the one found in the Gyaphagpa Lhakhang, which was clearly identified through inscriptional evidence. Both painted figures hold the same implements and ride white horses instead of blue ones, the more common depiction.³⁵

The Lotsawa Achi faces a large image of Cakrasaṃvara who is positioned above a two-armed Mahākāla. To Cakrasaṃvara's proper left shoulder is a small figure in white robes who sits in mountainous environs (fig. 126). It is possible that this figure is the white turban-clad Taksang Repa (*sTag tshang ras pa ngag dbang mtsho*, 1574-1651), a 17th-century historical figure who the Ladakhi king, Jamyang Namgyal, patronized to construct several Drukpa (*Brug pa*) temples in Ladakh.³⁶ If this is the case, this painting programme would suggest a notable integration or interaction between these two schools of the Kagyu Tradition at Nako.³⁷

34 These iconographic details are listed in the Himalayan Art website (item no. 433), written by Jeff Watt.

35 Though the figures are largely consonant in their details, there are some differences, such as their number of attendants. The Gyaphagpa figure has three while this programme shows four horse-mounted attendants. These variations likely relate to different textual traditions.

36 See Pirie 2007: 18–19. Rob Linrothe helped to identify this figure as Taksang Repa. Toni Huber mentions this historical figure's pilgrimage through the western Himalaya and into Swat Valley in the 17th century (Huber 2008: 176–77). Note that there are several different phonetic spellings of his name.

37 I thank Rob Linrothe for sharing his astute comments on Taksang Repa.



Fig. 126: Nako (Lotsawa: east wall) Taksang Repa in white robe amid Himalayan mountains. To his right is a portion of Chakrasamvara and Vajravārahī, c. 18th century.

Achi's presence on the east wall suggests that the Drigung Tradition was still well intact in Nako as late as the 18th century, though perhaps not without the presence of Drukpa. This Drigung affiliation will later give way to the Drukpa Kagyu Tradition as will be discussed later. Thus, perhaps what is illustrated on the east wall of the Lotsawa is an early period of co-existence between the two schools before the Drukpa School dominates in Nako.

KARCHUNG LHAKHANG

The paintings of this roughly 5.75 m² temple are often neglected because of their very poor condition. Water damage has ruined the majority of the temple's walls, but the few surviving patches of paintings reveal that the temple was painted in at least two different styles separated by roughly a century and a half, if not more. The earlier painting phase can be dated, based on stylistic analysis, to roughly the late 16th or early 17th century and can be considered part of the Ngari style of the late Medieval period. The temple's second painting phase, surviving sections of which are found on the east (entrance/exit) wall, is done in a later painting style of the second half of the 18th century. It is this style that corresponds so closely with the previously discussed paintings found on Lotsawa's east wall.

Style

Though the paintings are in great disrepair, enough of them survive to allow a brief analysis. The one-thousand-armed and eleven-faced Avalokiteśvara painted on the south wall, for example, is clearly executed in an idiom of the Ngari style (fig. 127). A close-up of Avalokiteśvara's face evinces clear stylistic connections with the Ngari tradition, in the details of the hairline, split widow's peak and heavy upper eyelids with long arching brows. A useful comparison can be made with a one-thousand-armed Avalokiteśvara at Tabo's Cave Temple.³⁸ The two Avalokiteśvara paintings share many of the same Ngari stylistic elements, as can be seen in their physical forms, *dhoti* types and navel articulation. One particularity of the Karchung rendering is the colour of the Bodhisattva, who is not painted his typical white but an almost gray-blue colour, which may have to do with pigment degradation over time. There are also some decorative elements, such as the crown with yellow flowers, which I suggest are evidence of later repainting.

While Karchung's east wall is painted in an entirely different style from the Ngari tradition, the painting style is quite similar to the one used for the murals on Lotsawa's east wall. Both murals evince the same characteristic features of this style: Outlining, unmodulated palette, unsteady line work, stiff figural forms with broad noses. It is likely that the artist of the east wall's 18th-century composition "touched up" the 16th-century paintings and made some changes to the earrings and yellow crown flowerets on the 16th-century Avalokiteśvara figure of the north wall.

Iconography

Unlike the Lotsawa and the Gyaphagpa Lhakhang, there is not enough extant material evidence to warrant a full discussion about iconography. For instance, the only paintings that survive on the north and south walls are sections of Avalokiteśvara's body and a depiction



Fig. 127: Nako (Karchung: north wall)
Avalokiteśvara detail, c. 18th century.

of Amitābha's Pure Land (*Sukhāvati*). The Avalokiteśvara image is clear enough that one can see that the heads are arranged according to the Palmo (*dPal mo*) tradition, with three tiers of three heads each and two crowning heads, one atop the other. Ten of these eleven heads are pacific, while the penultimate head at the top is a blue-faced deity who snarls in a wrathful grimace. The Palmo mode is named after Gelongma Palmo (*dGe long ma dPal mo*), a Kashmiri princess (born *Bhikṣuṇī Lakṣmī* or *Lakṣmikara*), who renounced the worldly life to become a nun. This mode of presenting Avalokiteśvara, as opposed to the Gyalpo style, seems to have been the preferred manner during the late Medieval period in West Tibet.³⁹

The east (entrance/exit) wall has significantly more visual materials from which one can clearly discern the temple's Kagyu affiliation. In fact, these paintings strongly reflect much of the same iconographic programme found in the apse and on the east wall of the neighbouring Lotsawa Lhakhang. Tseringma, certainly the main protector figure of the temple, resides at the centre of the composition (fig. 128). She is accompanied by her retinue of four sisters. Milarepa sits above and to the right of Tseringma. Below this assemblage of the Five Sisters of Long Life sit the remnants of the Guardians of the Four Directions. The only two discernable figures are *Virūḍhaka*, who holds with his right hand the hilt of a sword, and *Dhṛtarāshtra*, who plays a four-stringed *vīna* up at his left shoulder. A large wrathful figure of Four-armed Mahākāla is located at the right of this central part of the composition. The other figures of the composition are too damaged to identify.

³⁹ For more on these two types of Avalokiteśvara and their uses in West Tibet, see Kerin and Linrothe 2014. For more on the hagiographic accounts of Gelongma Palmo's life and problems about dating see Vargas-O'Brian 2001.



Fig. 128: (Karchung: east wall) Tseringma with two direction guardians below her, c. 18th century.

Conspicuously absent from the iconographic programme is any clear marker of Drigung affiliation. For instance, Achi, the protectress of the Drigung School, who makes an appearance at both the Lotsawa and Gyaphagpa Lhakhang, is nowhere to be found here at Karchung. Her omission portends Nako's general trend away from Drigung and toward Drukpa practice in the later part of the 18th century. Based on the material evidence, the village faithful became dominantly Drukpa Kagyu, evinced by the 19th-century construction of two temples, which are known in the village as the Upper and Lower Tungyur (*Dung 'gyur*). The iconographic evidence at both of these temples overtly expresses Drukpa Kagyu affiliation. Moreover, the village faithful of Nako currently describe the village and its temples as having been Drukpa Kagyu. Based on interviews with several villagers, it is clear that they consider themselves Drukpa Kagyu and have no memory of a time when the village may have accommodated another Kagyu Tradition.⁴⁰

CONCLUSION

By documenting and analysing the impressive stylistic and iconographic range of these painting programmes, several significant aesthetic and religious trends of the 16th – 18th century have been identified, which affect and nuance current understandings about Nako's history. The analysis of these iconographic programmes reveals that the villagers of Nako propitiated Drigung, which is not only evidenced by the 16th-century iconographic programme at Gyaphagpa Lhakhang, but also suggested in the 16th-century painting of Padampa in Lotsawa Lhakhang's western apse. It seems that in the 18th century, the Lotsawa Lhakhang again expressed an association

with Drigung, if indeed the white figure astride a horse, holding a drum aloft in her right hand and a skull cup to her chest in her left hand, is Achi. If this is the case, it seems Achi is joined by the 17th-century Drukpa figure, Taksang Repa. The combination of these two figures in one programme points to an interesting Drigung/Drukpa pairing that warrants more investigation.

As has been explained elsewhere, Nako's interest in Drigung is likely in relation to a larger wave of Drigung activity that swept through West Tibet and into Ladakh during the 16th century due to the charismatic Drigung monk known as Denma Kunga Dragpa (lDan ma kun dga' grags pa), who traveled to Kailash from Central Tibet in the early 1500s. Denma gathered

⁴⁰ Ani Samten Wangmo (Buddhist nun), in discussion with the author, May 2005. Rinchen Namgyal, translator. Kunchok Ngodrub (temple caretaker), in discussion with the author, May 2005. Rinchen Namgyal, translator. Rinchen Namgyal translated from the local Tibetan dialect into English and Central Tibetan. For more on these interviews see Kerin 2015.

tremendous royal support in Guge, Purang and eventually in Ladakh, where he was given land to create the Drigung Monastery named Gangnon Tashi Choedzong (sGang sngon bkra shis chos rdzong), more commonly known as "Pyang" Monastery located 20 km to the west of Leh, the capital of Ladakh.⁴¹ While there is no textual evidence to support the hypothesis that Denma's West Tibetan activity spread to villages such as Nako, the visual material evidence does corroborate such activity. At the least, one must recognize that Denma's presence in Ngari and Ladakh in the 16th century directly coincides with the date of the Drigung painting programme at Nako's Gyaphagpa and Lotsawa Lhakhang. It is likely that Nako benefitted from the groundswell of Drigung activity at this time. As for the duration of Drigung activity in Nako, it is difficult to say; based on the extant material evidence, it seems there is no Drigung patronage after the 18th century. It is likely that the Drigung population gave way to or was subsumed by a robust Drukpa following. Indeed, it is this Drukpa community that is now dominant in Nako currently.

41 For a brief history of this monastery and a very abbreviated discussion of Denma's role in its founding see dKon mchog Namgyal 1989. I thank Terence Barrett for his help in translating the text.



2.2. Diamond Spheres— The Keys for Omniscience

The Importance of Vajradhātu and other Mandalas of Vairocana in Tantrik Buddhism at the example of the Nako Lotsawa Lhakhang

Andrea Loseries

INTRODUCTION

In the Lotsawa Lhakhang (*Lo tsa ba lha khang*) of Nako, the oldest and largest of the entire temple complex, which is to this date used regularly by the villagers there are three important mandalas. Faded as they are after nearly a thousand years in use, they are fully developed mandalas with all gates and circles, still an inspiration for the locals who circumambulate the sanctuary with bowed heads, turning their prayer wheels. Is their devotion just based on faith? Or is there an understanding of the inner meaning of the images depicted? Why were these complex themes chosen for such a small community? Or was it just the execution of a precise order of the local village or district chief of that time? Was it a strategic sign of supremacy, political or spiritual? And why were these themes, popular in the 11th century, rarely taken up at a later period?

These questions haunted me since my first and thus only visit to Nako in 2008 and in a subsequent research project on the Nako murals (2009–10).¹ Herewith I attempt to decode the complexity of the three mandalas presented in the Lotsawa Lhakhang of Nako and the general theme of “Diamond Spheres” (Vajradhātu, Tib. *rDo rje'i dbyings*) based on relevant texts contained in the Tibetan canon (*bKa' 'gyur* and *bsTan 'gyur*) and oral transmission (*bka'* or *nyan rgyud*), while keeping in mind the principles of Tantrik transmissions sealed as “secret” for the uninitiated.

In the apse of the Lotsawa Lhakhang the Five Tathāgatas (Five Buddhas) of the Vajradhātumahāmaṇḍala are depicted with the main images of deities in sculptures and the remaining icons in painting (fig. 130). Clearly visible is the enthroned Ratnasambhava supported by horses, and the Bodhisattva Vajraketu holding a banner, one of the four Bodhisattvas attached to Ratnasambhava in the Vajradhātu Mandala (fig. 131). The vajra inside the aureole represents the goddess Cittavajrī (*rDo rje sems ma*) who attends Vairocana. On the south wall of the Lotsawa Lhakhang a large mural occupying the entire wall represents the Dharmadhātuvāgiśvaramaṅjuśrī Mandala with the main image in its eight-armed Tantrik form (figs 129 and 132). The north wall, painted in a slightly different style and dating from a later period with the inner section repainted, displays the Durgatipariśodhana Mandala with the four-headed Vairocana in the centre (see fig. 65). Interestingly, next to the icon of Green Tārā and the Prajñāpāramitā there is also the depiction of a donor in form of a noble man (minister?). Unfortunately the inscription is not legible. As excellent art historical descriptions have already been presented, there is no need for repetition.²

Fig. 129: Mandala on the south wall in Lotsawa Lhakhang.

1 For the Institute of Conservation, University of Applied Arts, Vienna.

2 See in detail Luczanits 2004: 79–84.



Fig. 130: Apse of the Nako Translator's Temple with the Five Buddhas centred on Vairocana.

These three mandalas are connected with the Five Transcendent Buddhas (*rGyal ba rigs lnga*) of Tantrik Buddhism (fig. 130).

In the development of the Buddha's doctrine into the different philosophical systems and schools, some emphasising the mystical element—the experience of deep meditation which goes back to the Buddha himself—some adhering to dogmatic argumentation, the new goal of *Mahāyāna*—enlightenment and salvation for the sake of all beings—also engendered a different view of the Buddha. He was transformed into a supernatural being whose activity transcends the human world; he became the embodiment of the highest being, the Absolute. The historical Buddha was replaced by a multitude of Buddhas, a new Buddhology was created. The different aspects of the Buddha were then harmonized in the doctrine of the Three Bodies (*kāya*) (Lankāvatārasūtra, 3rd century AD). Accordingly, the three aspects of the Buddha's nature were taught; the material appearance (*nirmanakāya*), the subtle energetic, luminous appearance (*sambhogakāya*) and the absolute nature (*dharmakāya*) of Buddhas.³ The transcendental Buddhas in the *sambhogakāya* aspect are dwelling in pure Buddha fields and are categorized in five Buddha families, arranged in the mandala of the Five Tathāgatas where each direction is headed by a Buddha. Transcendental means a dimension of spiritual perception attributed to an advanced practitioner or Bodhisattva.

³ See in more detail Schuman 1976: 153ff.

All deities of the Buddhist pantheon emanate from one or the other of the Five Buddhas or Jinas. Always engaged in peaceful meditation, they voluntarily restrain themselves from the act of creation, which is the duty of their emanations, the divine Bodhisattvas. The idea of the Five Buddhas seems to have developed in the first half of the 8th century during the time of Indrabhūti, the king of Uddiyana. According to Āryadeva⁴ they might owe their origin to the theory of the eternity of the five senses, or it may also be possible that the five *mudrās* of Buddha Śākyamuni gave rise to their separate identities. Advayavajra (11th century) describes them to be the embodiments of the five *skandha*. In union with their respective consorts they represent the personified image of the primordial principles in their five elemental differentiations. In accordance with the living oral tradition it may be assumed that the five *skandha* actu-



Fig. 131: Deities of the Vajradhātu Mandala painted to the side of Ratnasambhava's throne.



Fig. 132: The central figures of the Dharmadhātuvāgīśvaramaṅjuśrī Mandala.

4 In *Cittaviṣuddhiprakaraṇa*; here the Tantrik Āryadeva is referred to. See Bhattacharya 1993¹:1ff.

ally developed as the five stages of *nirvāṇa* in Buddha Śākyamuni himself. The story of the five attacks of Mārā and his victory over each evil obstacle is the illustration of the five poisons tempting him and his transcending them by evolving each state of pure consciousness connected to each of the *skandha* consecutively. Later that was the basis of illustrations for the entire Buddhist Tantrik pantheon which is merely aesthetic audio/mantra-visual/forms of meditation to enhance the feeling and experience of contemplation (*samādhi*) following the path of Śākyamuni.⁵

Appearing in their “glorious enjoyment body” (*sambhogakāya*) in their limitless “Diamond” (Vajradhātu) or “Dharma” Spheres (Dharmadhātu) the Five Tathāgatas are only perceived spiritually and visible exclusively to advanced Bodhisattvas: Vairocana in the centre of white colour, Akṣobhya in the east (blue), Ratnasambhava in the south (yellow), Amitābha in the west (red) and Amoghasiddhi in the north (green). They appear all alike, but vary in their particular colour, the different positions of their hands and their vehicles (*vāhana*).

One of the main textual sources for Buddhist iconography in general is the *Sāadhanamālā*⁶ of unknown authors, the earliest manuscript of which dates to the year AD 1167. This is a compilation of 300 meditational practices (*sādhana*) on visualized deities, gradually cleansing the mind for the integration of pure vision (*dag snang*) based on the realization of the essential voidness (*sūnyatā*) of all phenomena. The description of deities in this text collection is surprisingly detailed. Another important reference is the *Niṣpannayogavāli* by the Mahāpandita Abhayagupta⁷ (12th century) which contains details of twenty-three mandalas with the descriptions of all deities, including the three mandalas depicted in the Lotsawa Lhakhang of Nako. However, the depiction of the Nako murals was not directly based on this text as there are some significant iconographic differences. The *Niṣpannayogavāli* shows the connection of the deities with ideas, notions and dogmas current in Buddhism, or with the Five Buddha Families (*pañcakula*), the regulation of colours of the deities and the directions with which they have natural connection. With the help of this text one can write a comprehensive study on the Buddhist pantheon, and classify the deities according to their family (*kula*), colours and directions.

For decoding the symbolism of these mandalas and their evolution in the history of Tantrik thought in Indian Buddhism the study of the Vairocanābhisambodhi Sutra⁸, basically still a *Mahāyāna* text, and the Tattvasamgraha Tantra⁹, following a purely Tantrik system, were also essential.¹⁰ While the first text emphasizes the logic of action (karma) via the accumulation of two merits (wisdom and means), the latter represents the Tantrik idea of essential union of individual existence with ultimate reality (logic of yogic practice). The latter tantra was particularly studied during the times of Rinchen Zangpo and in his school in the following centuries. Its main commentary by Ānandagarbha was translated into Tibetan by Rinchen Zangpo. The elaboration of these two diametrically opposed characters of thought and their impact on the

5 Kulavadhuta Satpurananda, Arunachal Pradesh, 15 April 2012.

6 Edited by Benotyosh Bhattacharya (see Bhattacharya 1993ⁱⁱ).

7 Edited by Benoytosh Bhattacharya (see Bhattacharya 1949); in Tibetan: *rDzogs pa'i rnal byor gyi phreng ba shes bya ba* (The Tibetan Tripitaka, No. 3962, Vol. 80).

8 Tibetan version: *rNam par sang mdzad chen po mngon par rdzogs par byang chub pa rnam par sprul ba byin gyis rlob pa zhin tu rgyas pa mdo de'i dbang po rgyal po shes bya ba'i chos kyi rnam grangs* (The Tibetan Tripitaka, No. 126, Vol. 5); there is also a Chinese version.

9 Tibetan version: *De bzhin gshes pa thams cad kyi de kho na nyid bsdus pa she bya ba theg pa chen po'i mdo* (The Tibetan Tripitaka, No. 112, Vol. 4), and its Chinese version.

10 See in detail Tsuda 1978: 167–231.

understanding of the “Diamond Spheres” will be described later. Other important sources on the evolution of the Five Tathāgatas in Tantrik Buddhism are the Guhyasamāja Tantra, Hevajra Tantra, the Guhya garbha Tantra as well as the entire “treasure” (*gter ma*) literature on what is popularly known as the “Tibetan Book of the Death” (*Bar do thos gro!*) as it is again the appearance of the Five Tathāgatas after death in the intermediate state which allows the dissolving mind stream of the dead to merge with the elemental lights of their essence and thus gain freedom from the cycle of rebirth. Furthermore, for decoding the mandalas of Vairocana the experimental realization through yogic practice on the basis of initiation, direct transmission and unbroken commitments (*samaya*) is also a salient feature, of which only some aspects of insight can be revealed to the interested public. Some we find in the commentaries of Rinchen Zangpo included here. Further, I am grateful that yogi Kulavadhuta Satpurananda, a descendant of the Indian blood lineage of Atīśa and holder of Svayambhunātha transmission through Matsendranātha, Janlandharanātha, Kaṇhanātha up to his Gurus Bhyomśankara Aghori and Ramnāth Aghori, responded to my many inquiries on the subject and shared his experiences for clarification.¹¹ Comments without references are my own insight gained through hearing, reflection and meditation. As the numerous Tantrik texts translated for this study as well as their decryption exceed the frame of this contribution, only a short survey is presented here; the entire material to be produced eventually in a separate monograph at a later date. Furthermore, neither the Chinese and Japanese traditions¹² nor the Great Mandala of Borobudur could be included here.

First the three mandalas¹³ are briefly described with some key comments of yogic understanding.

VAJRADHĀTU MANDALA

The Tibetan Tanjur contains four texts in regard to this mandala: “The Meditation on the Diamond Sphere Mandala, its condensed meaning” (*Vajradhātumandalārtha bhāvana piṇḍārtha*¹⁴), “The Deities of the great Diamond Sphere” (*Mandala Vajradhātve Mahāmandala sarvadeva vyavasthāna nāma*¹⁵), “The Origination of all Diamonds in the ritual of the great diamond Sphere Mandala” (*Vajradhātumahāmandalopāyikā sarva vajrodaya nāma*¹⁶) and

11 The data were initially assembled per email correspondence (March–April 2012) on the basis of the compilation and translations of the sources collected. In the second phase the data were collected in form of a field study on the basis of structured interviews and lively discussions with yogi Satpurananda at Gangtok in June 2012. Here I would like to express my gratitude for having taken this complex subject of study to heart and making it his personal concern. His explanations have been compared with notes on explanations given by several great masters of the Kagyu and Nyingma Schools such as my Root Guru, Rolpa Rigpa Dorje, the 16th Gyalwang Karmapa, H.H. Dudjom Rinpoche, Drikung Kyabgon Chetsang Rinpoche, et al. over the last four decades collected by the author.

12 See e.g. Chandra 1997.

13 The mandalas of Nako have been described in detail by Giuseppe Tucci (Tucci and Chandra 1988) and Christian Luczanits (Luczanits 2008). Compare also Klimburg-Salter 1997.

14 *rDo rje dbyings kyi dkyil ,khor gyi don bsgom pa'i don bsdu pa* (The Tibetan Tripitaka, No. 3353, Vol. 74), translated by Kumārakalaśa.

15 *rDo rje dbyings kyi dkyil ,khor chen po'i lha nams pa bzhag pa shes bya ba* (The Tibetan Tripitaka, No. 3327, Vol. 70), its author is Muditakośa and translated by Padmākaravarman and Rinchen Zangpo.

16 *rDor je dbyings kyi dkyil ,khor chen po'i cho gar do rje thams cad ,byung ba shes bya ba* (The Tibetan Tripitaka, No. 3339, Vol. 74), written by Kun dga' sNying po and translated by Buddhaśrīśānti and Rinchen Zangpo.

“The Origination of all Diamonds in the ritual of the great Diamond Sphere Mandala, the condensed Meaning” (*Vajradhātu mahāmandalopāyika nāma piṇḍārtha*¹⁷).

Generally in Buddhism the term “diamond” (vajra) is a symbol for something which cannot be destroyed, just like a diamond. It is a symbol for the absolute reality, the essential void nature of all existence. Like a diamond the void is indestructible as (something) not made due to non-origination. Moreover, the faultless purity and transparency of the diamond symbolizes the complete perfection of the void, despite all manifestation which the void engenders. The void is not different from phenomena; it is identical in a way only to be experienced in the state of enlightenment.

For decoding the mandala the second text listed is of particular interest, as it was translated into Tibetan by Rinchen Zangpo. Some short notes extracted from this work have been included here after the description of the mandala.

The first text focuses on the inner meaning of the mandala in the process of the “Arising Yoga” (*skyes rim*) with emphasis on the brilliance and coolness of many moons in the body and which fill the sky, the interaction through the vajra in the heart centre etc. while meditating on the Svabhāva (essential) Mandala as a reflection of the Nirmāṇa (manifested) Mandala—a yogic system too complex and also reserved to the initiate to explain here further. The third and the fourth give lengthy explanations on the ritual itself and therefore are also not of immediate relevance for this paper.

Vajradhātu or “Diamond Sphere” is the name given to Buddha Vairocana who is described in the *Niṣpannayogāvalī*¹⁸ as four-faced and eight-armed, sitting on a lion. His consort is Cittavajrī (“Diamond Mind”) and likewise the four goddesses of the first and innermost circle are named Vajrī (“Diamond”)—Sattvavajrī (“Diamond Being”) in the east, Ratnavajrī (“Diamond Jewel”) in the south, Dharmavajrī (“Diamond Dharma”) in the west and Karmavajrī (“Diamond Action”) in the north. According to the *cakra* (“wheel”) principle of a mandala circle the main deity in the centre, here Vairocana, enters sexual union with each of them in clockwise rotation.

Beyond this innermost circle Akṣobhya, seated on an elephant throne is shown in the east; in the south Ratnasambhava on a throne supported by four horses; in the west Amitābha on a peacock throne and in the north Amoghasiddhi on a seat supported by Garudas.

Each Buddha is surrounded by four deities in the four directions, all bearing the epithet vajra (“diamond”): In the entourage of Akṣobhya we find in the east Vajrasattva (“Diamond Being”), in the south Vajrarāja (“Diamond King”), in the north Vajrarūpā (“Diamond Form”) and in the west Vajrasadhu (“Diamond Saint”). Ratnasambhava is surrounded by Vajraratna (“Diamond Jewel”, east), Vajratejas (“Diamond Splendour”, south), Vajraketu (“Diamond Banner”, north) and Vajrahāsa (“Diamond Laughter”, west). Amitābha’s court consists of Vajrakarma (“Diamond Action”, east), Vajratikṣṇa (“Diamond Sharpness”, south), Vajrahetu (“Diamond Reason”, north) and Vajrabhāṣa (“Diamond Speech”, west). Amoghasiddhi’s companions are Vajrakarma (“Diamond Action”, east), Vajrarākṣa (“Diamond Demon”, south), Vajrayakṣa (“Diamond Titan”, north) and Vajrasandhi (“Diamond Seat”, west).

17 *rDo rje dbyings kyi dkyil, khor chen po'i cho gar do rje thams cad, byung ba shes bya ba'i don bsdu pa* (The Tibetan Tripitaka, No. 3352, Vol. 74), written by Munīndrabhadra and translated by Munīndrabhadra and Chos kyi shes rab.

18 Bhattacharya 1949: 54.

Around the central shrine in the four corners we find four goddesses representing offerings (*mchod pa'i lha mo*): Lāsya (lucidity) in the fire corner (Agni, i.e. south-east), Mālā (garland) in the Nairṛta demon corner (south-west), Gitā (song) in the wind corner (Vāyu, i.e. north-west) and Nṛtya (dance) in the Īśāṇa i.e. Śiva corner (north-east). Yogi Kulavadhuta Satpurananda¹⁹ explained lucidity (Lāsya) to be connected to copulation or equipoise, garland (Mālā) as mantra, song (Gitā) as teaching or expression and dance (Nṛtya) as rhythm of *prānic* pulsation and silent gestures. They represent the four ultimate graces emanating from the Guru or the Lord of the Mandala. They are also to be understood as the four elemental perfections giving birth to the 16 realizations personified as the Sixteen Bodhisattvas.

On the outer strip beyond the chapels the Sixteen Bodhisattvas are placed on lotuses—in the east: Maitreya, Amoghadarśi, Sarvapāyañjaha and Sarvaśokatamonirghāthamati; in the south: Gandhahasti, Suraṅgama, Gaganagañja and Jñānaketu; in the west: Amṛtaprabha, Candaprabha, Bhadrāpāla and Jālinīprabhā; and in the north: Vajragarbha, Akṣayamati, Pratibhānakūṭa and Samantabhadra.

The outermost circle is again occupied by four offerings personified as female figures: Vajradhūpā (encense) in the fire corner (south-east, Agni), Vajrapuṣpā (flower) in the south-west corner (Nairṛta), Vajrālokā (light) in the wind corner (north-west, Vāyu) and Vajragandhā (perfume) in Īśāṇa (north-east).

The four gate-keepers of the celestial palace are weapons embodied as male warriors: Vajraṅkuśa ("Diamond Hook"), Vajrapāśa ("Diamond Lasso"), Vajrasphoṭa ("Diamond Bomb") and Vajraveśa ("Diamond Armor").

In Rinchen Zangpo's translation of the text listed above as second (The Tibetan Tripitaka, Vol. 3327) it is stated that the Varjadhātu Mandala is practiced for the realization of *mahāmudrā*, i.e. the unwavering natural state of bliss-void. The essence of all Buddhas are the Five Primordial Wisdom (*ye shes lnga*). The innermost circle of the mandala is the integration of the five senses and five sense perceptions with the essence less nature of the void. Then attachment or desire (*chags pa*) is transformed with an unwavering mind into vajra-like bliss. The Sixteen Bodhisattvas symbolise the formations of the sense objects transmuted into wisdom, and the initiation into the 16 kinds of voidness (*śūnyatā*) in regard to the experience of absolute reality is announced with a victory banner crowned by a diamond. The characteristics of love are expressed by the diamond-like gift of the dharma and the diamantine dharma is the *samādhi* of Dharmadhātu. The offerings embodied as goddesses are for the realization that *mahāmudrā* and the Perfections of Skilful Means (*upāya*) are inseparable. The four gate-keepers tend to the maintenance of enthusiasm for the path of enlightenment along the twelve Enlightenment Stages (*bhūmi*). The twelfth *bhūmi* is the realization of the diamantine body, speech and mind manifested as perfect Buddhahood. The Five Wisdoms have to be understood to be free of characteristics, aspirations or fabrication.

To summarize the visualisation, the innermost core consists of the eight-armed Vairocana with his consort, encircled by four female vajri-goddesses, turning clockwise. They are surrounded in an intermediate sphere by the Four Transcendental Buddhas in their respective directions. Each of them is encircled by four deities, all bearing the epithet "diamond" (vajra). In the intermediate directions four offering goddesses are shown. In the outer circle the Sixteen Bodhisattvas are placed in the cardinal directions, while in the intermediate directions

¹⁹ Verbal communication, Gangtok 2.6.2012.

four offerings embodied as female figures are placed. The four palace gates are guarded with different weapons in the guise of fierce warriors.

DURGATIPARIŚODHANA MANDALA

According to the *Niṣpannayogāvalī* the “Cleanser of suffering” (*durgatipariśodhana*) is a special epithet of Śākyasimha, i.e. Śākyamuni Buddha who in this mandala is identified with Vairocana in the *dharmacakramudrā*. *Durgatipariśodhana* means sufferings (*durgati*) ever-cleansed (*pariśodhana*), which refers to the final purification of all karmas. Karma is suffering, be it good or bad. Until and unless all karmas are cleansed or purified the mind is not free from the aggregates (*skandha*) which give us the illusion of an individual being or “I”. A mental collection of aggregates passes from body to body to complete the journey of karmas from lives to lives to end up in the void which is the Buddha Mind. Buddha Mind is the mind without attributes or qualities in *nirvāṇa*, coming back as the reality of *saṃsāra* which is essentially *nirvāṇa* in expression of compassion. This is where Buddha Śākyamuni says in the *Niṣpannayogāvalī*, “As long as every sentient being is not liberated I will come back to this Samsāra again and again to liberate all beings from the chain of karmas”. This vow deifies Śākyamuni as *durgatipariśodhana*. In Vajrayāna the Guru-enthraling Buddha mind comes down to the level of the disciple in order to accomplish the needs of the disciple, whereas the disciple arises to meet the Buddha Mind. They meet at the cross-roads. This aspect of a Guru in the footsteps of Śākyasimha’s compassion—the disciple reaching wisdom and the Guru activating compassion—is the process of Yoga Tantra described in this mandala very subtly through coded words and illustrations. The coded words refer to the *sūtras* and the coded practices refer to the tantras though they are inseparable. This aspect of Vairocana expounds the structure of existence equal to non-existence through omniscience (*kun rig*) expressed in the teachings, explanations and illustrations of the Guru, who in Vajrayāna is seen as the Embodiment of the Three Jewels: Buddha, Dharma and Sangha.

In the first circle Vairocana is surrounded by eight *uṣṇīṣa* deities in the four directions and four intermediate corners. The Sanskrit term *uṣṇīṣa* refers to the three dimensional oval protuberance on the head of the Buddha symbolizing his attainment of reliance on the spiritual guide. It is also one of the 32 “great marks” (*mahālakṣaṇa*) of the Buddha. The eight *uṣṇīṣa* deities or goddesses are attributed according to the qualities of their respective Buddha family (*kula*): Vajroṣṇīśa (east), Ratnoṣṇīśa (south), Padmoṣṇīśa (west) and Viśvoṣṇīśa (north). In the intermediate directions are placed Tejoṣṇīśa (south-east, Agni), Dhvajoṣṇīśa (south-west, Nairṛta), Tikṣṇoṣṇīśa (north-west, Vāyu) and Chatroṣṇīśa (north-east, Īśāṇa).²⁰

In Yoga Tantra²¹ enlightenment is achieved by means of transference (bhedica-yoga, Tib. *’pho ba*) of the consciousness passing through 64 Samādhi and the Brahmarandhra gate, i.e. the joint of the two parietal lobes and the frontal lobe, and going twelve finger-breadths over the head in twelve stages, where the mind merges with the womb of the void, deified as the three-faced and eight-armed Victorious Goddess of *Uṣṇīṣa*, *Uṣṇīṣavijayā*. These twelve stages reaching to *Uṣṇīṣavijayā* are said to be the twelve *bhūmi* or Stages of Enlightenment. The eight yogic perfections (*aṣṭayogasiddhi*) are the eight *uṣṇīṣa* deities encircling the Buddha Mind, here in the mandala depicted as Vairocana. Kuleśa means the Lord of One of the Five or all the elements. Kuleśa refers also to the Tantrik Buddha-Guru. The qualities of *uṣṇīṣa* goddesses are:

20 For further details see also Chandra 1996: 47ff.

21 Satpurananda, Gangtok 6th June 2012.

1. Vajroṣṇīśā (in east) represents the essence of the indestructible experience of *samādhi*.
2. Ratnoṣṇīśā (south) represents the essence of perfect disciplines.
3. Padmoṣṇīśā (west) represents the essence of expressive compassion.
4. Viśvoṣṇīśā (north) represents the essence of spontaneous qualities.
5. Tejoṣṇīśā (south-east, Agni) represents the mindfulness of omniscience.
6. Dhvajoṣṇīśā (south-west, Nairṛta) represents the essence of victory over temptation.
7. Tikṣṇoṣṇīśā (north-west, Vāyu) represents the essence of unbiased judgment.
8. Chatroṣṇīśā (north-east, Īśāṇa) represents the essence of perfect refuge.

Beyond this circle are four offering goddesses: Lāsyā, Mālā, Gītā and Nṛtyā, corresponding to experiential wisdom, imparted by the Guru to the body-mind of the disciple. Lāsyā (glamour, lucidity) represents the flow of aesthetic expression. Mālā (garland) represents the mantra resonances in the sensation of ethereal sound. Gītā (song) represents the *doha* or essential teachings of revelation through spontaneous songs. Nṛtyā (dance) represents the physical rhythm of yogic perfections. These four offering goddesses embody the practical experience of the yogic union of the initiates body and mind.

The four palace gates in the four cardinal directions have in each of them two Bodhisattvas in the right and two Bodhisattvas in the left corner, i.e. Sixteen Bodhisattvas in four directions. They are in the east: Maitreya, Amoghadarśi, Apayāñjaha and Sarvaśokatamonirghāthamati; in the south: Gandhahasti, Surañama, Gaganagañja and Jñānaketu; in the west: Amṛtaprabha, Candraprabha, Bhadrāpāla and Jāliniprabha; and in the north: Vajragarbha, Akṣayamati, Pratibhānakūṭa and Samantabhadra. These Sixteen Bodhisattvas embody the manifested understanding of the *Mahāyāna* as characterized in their behavioural and realized denotations.

Kulavadhuta Satpurananda explains the Sixteen Bodhisattvas as the 16-fold realisations corresponding to discipline, passion, understanding and purification connected to any dharma. The pair on the right side of each gate correspond to the Kṛya and Cārya Tantra; the pair on the left to Yoga and Anuyoga Tantra practices and their realisations²². Each direction corresponds to an element (east: water, south: earth, west: fire, north: wind) in fourfold aspects (water/water, water/earth, water/fire, water/wind, fire/fire, fire/water, fire/earth, fire/wind, etc.). Thus these Bodhisattvas are physio-psychic energetic insights of the void emerging from the Bodhicitta of the enlightened Guru to render illustrative teachings to the disciples according to their capacities.

As for decoding the Sixteen Bodhisattvas of Durgatipariśodhana Mandala according to their Sanskrit nominations:²³

- East (Heart Cakra, Cārya Tantra²⁴): Maitreya (loving kindness equipoise), Amoghadarśi (unsurpassable observation), Apayāñjaha (removing deviation) and Sarvaśokatamonirghāthamati (mindfulness of ending all depressions of inertia)
- South (Secret Cakra, Kṛya Tantra): Gandhahasti (essence of discipline), Surañama (righteousness), Gaganagañja (spiritual ambition) and Jñānaketu (accomplishment of senses).

22 In the Indian yoga system followed by Satpurananda, Yoga Tantra is listed as second, and Cārya Tantra listed third. Here I stick to the Tibetan tradition.

23 Based on elaborations of Satpurananda, Gangtok 6th June 2012.

24 See note 21.

- West (Throat Cakra, Yoga Tantra): Amṛtaprabha (immortality or nectar of wisdom), Candraprabha (mindfulness of illumined feelings), Bhadrāpāla (moral discipline or conscience) and Jāliniprabha (endless illumination of compassion).
- North (Navel Cakra²⁵, Anuttara Tantra): Vajragarbha (intrinsic voidness) Akṣayamati (mindfulness of indestructibility), Pratibhānakūṭa (infinite qualities) and Samantabhadra (conscientious equanimity).

In the intermediate corners of the mandala appear further four offering goddesses: Puṣpā (flower), Dhūpā (incense), Dīpā (light) and Gandhā (perfume). In Yoga Tantra they represent arts or ways of the Bodhisattva (*bodhicārya*): Puṣpā represents the art of blooming *cakras*; Dhūpā cleans emotions through practice of service and compassion; Dīpā illuminates the mind in the realization of Bodhicitta; Gandhā represents the art of discipline to maintain the arising Bodhicitta.

At the palace doors we find the same gate-keepers as in the Vajradhātumahāmaṇḍala. They guard the four gates of the body palace, representing the four-fold Hatha Yoga to hold the power of consciousness within the body: Vajraṅkuśa (Diamond Hook) represents the indestructible protective yoga of hooking the ego by meditative joy (*lāyā-samādhi*) into transcendence; Vajrapāśa (Diamond Lasso) represents the indestructible protective yoga of inner renunciation (*pratyāhara*) that binds by ways of rules and commitments; Vajrasphoṭa (Diamond Bomb) represents the indestructible protective yoga of mantra recitation (*dharaṇa*), blasting the thoughts of ignorance; Vajraveśa (Diamond Armour) represents the indestructible protective yoga of reflective meditation (*dhyāna*) that protects the yogi from karmic obstacles and defilements just like armour protects a warrior in combat.

A further series of deities is added in this mandala; all equipped with a *vāhana* and a *Śakti*, mostly deities of the past Pañcagama²⁶ Orders often misrecognized as deities from the Brahmanical pantheon. The five principal deities are: Nilakaṇṭha (Poison-drinking Śiva) on a bull represents the principle of self-sacrifice in the path of compassion. The bull is the metaphor for pulsation (*spanda*) by pulling the "dot" (*bindu*) of highest concentration to the head. Viṣṇu on the Garuda (eagle) represents the principle of existential awareness. The Garuda stands as the metaphor of pulsation of renunciation. Vajraghaṇṭā (Karttikeya) on the peacock represents the principle of fighting against negative temptations. The peacock stands as the metaphor of pulsation of turning negatives into positives. Maunavajra (Brahmā) on a swan represents the principle of creation. The swan stands as the metaphor of pulsation (*spanda*) of discrimination. Vajrāyudha (Indra) on an elephant represents the principle of rules and regulations. The elephant stands as the metaphor of pulsation of restraint and clarity of thought.

They are followed by nine planetary deities representing astrological times of practicing particular meditations (*sādhana*) and their effects in supernatural powers (*siddhi*). They are the Sun, Moon, Mercury, Venus, Mars, Jupiter, Saturn, Rahu (Uranus) and Ketu (Neptune).

A group of five Vajraśauṇḍa ("Indestructible Brewers") refers to the five cerebral fluids called the "five-wines" namely *poishti*²⁷ (brewed from grains), *goudi* (brewed from molasses),

²⁵ In the Indian tradition this is the Head Cakra.

²⁶ Śaiva, Śakta, Vaiṣṇava, Jaina and Bouddha.

²⁷ These terms are given here in Aprabramśa, as this deciphering is done according to the oral transmission. The five wines are wodka, rum, gin, brandy and met.

mulika (brewed from roots), *drakshi* (brewed from grapes), *madhi* (brewed from honey). According to alchemy these five fluids are the natural brewing of brain alcohol corresponding to the outer five wines described.

They are followed by six the deities of quarters (*lokadeva*) which—in Satpuranandas words—are six psychological conditions: superiority (gods or devas), revolution (asuras or Titan world), discontent (*preta*, hungry ghost realm), guilt-consciousness (hell), competitive (animal realm), confusion (human realm), all turning to enlightenment.

They are followed by a group of six goddesses representing the six aspects of enlightenment, after having exhausted the six negativities. Beyond these they are others like titans, goblin birds, men and other beings steeped in ignorance.

In the Tibetan Tanjur I found at least seven texts related to this particular mandala starting with the *Durgati-Parīśodhanārtha-vyañjana-vṛitti*²⁸ in Vol. 74. As the length of these texts far exceed the purpose of this study, there are here not further discussed.

In short, the Durgatiparīśodhana Mandala represents the cosmic and microcosmic compassionate teaching cycle of Buddha Śākyasimha's awakening in the form of Vairocana, pouring down as a stream of compassion through the *samādhi* states above the crown. Eight *uṣṇīṣa* goddesses, activated by the Sixteen Bodhisattvas at the four gates, watch over experimental yoga practices accomplished according to the respective capacity of the adept with the support of the four enlightened arts and guarded by the fourfold power of mindfulness. The outer circle are associating factors of the sacred teaching, how to emancipate from the cycle of suffering. In this way this mandala expresses the boundless compassion of Vairocana, who is incarnated in this world as Buddha Śākyamuni.

DHARMADHĀTUVĀGĪSVARAMAÑJUŚRĪ MANDALA

According to the *Niṣpannayogāvali*²⁹ the mandala is described as follows:

In this mandala the central deity is Mañjugōṣa, a form of Mañjuśrī, an emanation of the wisdom of all Buddhas, with four faces and eight arms, carrying different implements (fig. 132). A surprisingly large number of deities are included.

In the first circle there are the eight *uṣṇīṣa* deities in the four directions and the four corners³⁰: Mahoṣṇīṣa, Sitātapatra Uṣṇīṣa, Tejorāśi Uṣṇīṣa, Vijayoṣṇīṣa, Vikiraṇa Uṣṇīṣa, Mahodgata Uṣṇīṣa and Ojas Uṣṇīṣa.

Beyond them in the four cardinal directions are the Five Tathāgatas on their distinctive vehicles (as above). In the four intermediate corners are the four Buddhaśaktis or female consorts: Locanā, Māmakī, Pāṇḍarā and Tārā. The gate-keepers of the first circle are the same as in the Vajradhātumahāmaṇḍala.

In the second circle in the eastern direction from the Īśāṇa corner (north-east) are the twelve female personifications of the Stages of Enlightenment (*bhūmi*) from Adhimuktīcaryā till Samantaprabhā³¹, followed in the southern direction by the deified twelve *pāramitā* goddesses from Ratnapāramitā to Vajrakarmapāramitā. Towards the west there are a further set of

28 *Ngan song sbyong ba'i don gyi ,bru ,grel* (The Tibetan Tripitaka, No. 3451, Vol. 76), written by Buddhaguhya, followed by The Tibetan Tripitaka, No. 3452 – 3457, Vol. 74.

29 See and compare the details in Luczanits 2008.

30 Note that their names differ from the previously described Vajradhātu Mandala.

31 See in detail the deities listed in Bhattacharya 1949: 61ff.

twelve deities known as the twelve *vaśitā*, from Āyur Vaśitā to Buddhobodhiprabhā Vaśitā. In the north we find the twelve *dhāriṇī* goddesses, from Sumatī to Sarvabuddhadharmakośavatī.

The gates of the second circle are occupied by the four *pratisamvit* deities. In the intermediate corners we find the four offering goddesses, Lāsya in the fire corner etc. as in the Vajradhātu Mandala. In the third circle round of the principle shrine of Mañjugośa there appear the Sixteen Bodhisattvas, starting with Samantabhadra in the east.³²

The gates are occupied by ten wrathful (*krodha*) deities, four in the principal directions and four in the corners, one above and below: Yamāntaka (east), Prajñāntaka (south), Padmāntaka (west), Vighnāntaka (north) etc.

In the corners of the third circle appear eight offerant deities, two in each corner, one to the right and one to the left. To the right they are Puṣpā (flower), Dhūpā (incense), Dīpā (light) and Gandhā (music), referring to the outer offerings; to the left they are Vajrarūpā (Diamond Form), Vajraśabdā (Diamond Sound), Vajreṣyā (Diamond Taste) and Vajrasparśa (Diamond Touch), referring to sense perceptions.

In the fourth circle they are eight deities, four in the cardinal directions and four in the intermediate corners with their respective mounts: Indra, Yama, Varuṇa, Kubera, Īśāṇa on a bull, Agni on a goat, Nairṛti on a corpse and Vāyu on a deer.

Beyond the fourth circle there is a congregation of mainly Brahmanical deities with their *Śaktis*, the planets, *nāgas*, asuras, *yakṣas* and the constellation.³³

How the practices of this mandala have been incorporated in the Tantrik tradition is shown by the examples of three short texts contained in the Tanjur. It becomes clear that the brevity of the meditation manuals cannot be understood or applied without the detailed and personal instruction of the teacher. They may be regarded rather as key notes for refreshing the memory of the practitioner on the process of gradual generation of the deity by means of visualisation.

The text “The Ritual in regard to the Sādhana of the Dharmadhātu Lord of Speech (Mañjuśrī)”³⁴ reads as follows:

“Salutation to the Ārya Mañjugośa! As previously said in this assembly one has to meditate on the Void (Śūnyatā). Thereafter a lotus and a moon disc appear on which there is the red letter HO. It totally transforms into an eight-armed body with four faces: the main face is light red, the right one is saffron red, the face on the backside is ruby red and the face on the left is orange. The two main hands hold a bow and an arrow, the later ones a lasso and a hook, the next ones the volume of the “Perfection of wisdom” and a sword; the last ones a Vajra and a bell. Displaying the playful mood of strong passion, he resides by the power of various lotus and moon plays, He wears divine clothes and ornaments and is adorned with a tiara of locks streaming out boundless light. Rays of light emanating from the seed in the heart is transferred on all sentient beings and also on the place of self-empowerment. Then one recites the Mantra OM MAHĀRĀGA VAJRARĀGA YA SARVA ATVĀNA HO. Herewith is completed the ritual of the Dharmadhātuvagiśvara Sādhana.”

32 It should be noted that only in the Dharmadhātu Mandala the Sixteen Bodhisattvas are headed by Samantabhadra. In the Vajradhātu and Durgatipariśodha Mandala the Bodhisattvas are headed by Maitreya; see in detail Tachikawa 2001.

33 For the complete list, see Bhattacharya 1949: 64ff.

34 *Chos kyi dbyings ngag gi dbang phyug gi sgrub thabs kyi dbang du bya ba'i cho ga* (The Tibetan Tripitaka, No. 4277, Vol. 80), translation from the Tibetan by the author.

And another *sādhana* related to Dharmadhātuvāgiśvaramaṅjuśrī reads:³⁵

“After having meditated on the nature of Śūnyatā accordingly a Water Mandala appears as a white petalled lotus on which is placed the syllable ZE which is said to conquer death and liberate completely all Dharmas. On a moon disc is placed the white letter AM which transforms into one face and two arms of white colour. In the Vajra position the hands are folded in the Samādhimudrā. Adorned with all attributes of youth the venerable Maṅjuśrī with the hair tied in five locks³⁶ I myself appear in an instant in this form. In my heart there is a moon and a lotus; on top there is the letter KHAM out of which comes a conch and in its centre OM VAJRA CITTA RAM. Having said this appears on top of the Vajra tongue a jewel and a lotus on which one thinks to be Buddha Amitābha. On my palate downwards drops nectar similar to the letter BAM of white colour. OM VĀKYE DAM NAM, with these words one recites the Mantra on which the Conch Samādhi will come forward. This is the completion of the Dharmadhātuvāgiśvaramaṅjuśrī Mandala.”

The “Dharmadhātusādhana in regard to Speech” is as follows:³⁷

“Salutation to Ārya Maṅjuśa! After having meditated on the nature of Śūnyatā on a many petaled lotus appear a moon disc and the white letter A(M). Out of this is born the glorious Dharmadhātuvāgiśvara with all his limbs in white, with four faces and eight arms. He wears a crown of jewels (adorned) with the Five Buddhas and divine clothes and ornaments. In joyful and other moods his hands are showing the Mudrā of Dharmacakra, and he holds sword and arrow, as well as a Vajra in the three right hands. The volume of the “Perfection of Wisdom”, a bow and a bell he displays in his three left hands. Holding the Vajra position one has created oneself (in this form). In the heart appears from a moon disc a blue HUNG, the seed of a Vajra which nature is the (Vajra) Mahāmudrā. In between the eyebrows there is the yellow letter TRAM, the seed of the jewel which in its nature is Dharmamudrā. At the throat, out of the red letter HRIH as seed appears a lotus which is in its nature Samayamudrā. In the crown of the head, out of a white letter AH as seed appears a double Vajra which nature is Karmamudrā. In this way one meditates oneself as bestowed with the Four Mudrās. OM HUNG HRĪ BHAGAVAN JÑĀNA MURTI BĀGĪ SVARAMAHĀPĀCA SARVA DHARMA GAGANĀMA LA SUPARĪ ŚUDDHA DHARMADHĀTUJÑĀNAGARBHA Ā. One recites this Mantra for blessing. After that for binding with the Vajramudrā one holds the sword; this is the Samayamudrā. On one’s tongue, on a moon disc there is a red letter TRI as seed by which one is blessed. Recite the speech of the wrathful. As for this (one recites) OM VAJRA TIKŚTA DŪKHA KACE PRAJÑĀ JÑĀNA MURTA YE JÑĀNA KĀYA BĀGĪSAVARA ARA PA CA NĀYA TE NĀMA 108 times or pronounced well three times. Herewith the Sādhana of Dharmadhātuvāgiśvara is completed. It was translated by the Lotsawa from Kham, Bhikku Dharmakirti.”

Apart from these short meditation manuals there is another text translated by Grags pa rGyal mthsan contained in the Tibetan Tanjur, the details of which are omitted here, as it is very

35 *Chos kyi dbyings ngag gi dbang phyug sgrub thabs ,phags pa ,Jam dpal la phag tshal lo* (The Tibetan Tripitaka No. 4279, Vol. 80), translation from the Tibetan by the author.

36 Epithet.

37 *Chos kyi dbyings ngag gis sgrub pa'i thabs* (The Tibetan Tripitaka, No. 4141, Vol. 80). Translated from Tibetan by the author.

similar to the one cited above.³⁸ Moreover it would not help the understanding of the uninitiated reader.

DECODING THE MANDALAS

The Mandala is wisdom noblest from.
Unlike the moon it does not wax or wane.
But like the sun that shines alike on all
The same compassion holds us all in thrall.³⁹

Generally a mandala is understood tautologically as a “centralised circle” (*dkhil 'khor*) representing a cosmological world order which is inherently pure, i.e. devoid of afflictions. The base or *Urgrund* from where the mandala emerges is absolute space, *dharmadhātu*, infinite and boundless. This sphere is identical with the state of pure awareness (*rig pa*) which is enlightenment. A mandala unfolds or is accessed from outside as well as from inside as a three-dimensional experience of luminous space. Mandalas depicted on murals or scrolls are viewed rather as a map, a visual support for meditation stages described in the *sādhana* manuals. The planting of the seed syllable and the process of emergence within the indestructible sphere devoid of all phenomena first in the embryo stage in form of a symbol (e.g. a vajra), followed by the gradual or spontaneous appearance of (oneself as) the deity⁴⁰ is part of the gradual yoga practice, applying various means like mantra repetitions, *mudrās*, elaborate rituals and yogic psycho-physical excellence for achieving the desired fruit, which is a vision of the tutelary deity at the first stage and its successful dissolution into the void and remaining in this state with an unwavering clear mind. All these practices apply to the Tantrik path of skillful means. The emergence of the mandala and the steps of identifying oneself with the central deity differ in the four tantra categories.⁴¹ While in the first two tantra classes, namely Kṛya Yoga and Caryā Yoga the identification with the tutelary deity is the fruit of purification and of gathering merit through ritual offering, etc., in the Higher Tantras, Uttara Yoga and Anuttara Yoga, this process of identification and the unfolding of the mandala are more direct as well as more complex and extraordinary by utilising skillful means and enjoying them without attachment. In the *rNying ma* tradition the Higher Tantras are divided into Mahāyoga and Anuyoga. In Mahāyoga the emphasis is on the “Arising Stage” (*skyed rim*) i.e. an elaborate visualisation of the emergence of the deity within the mandala, whereas in Anuyoga the emphasis is on the “Completion Stage” (*rdzogs rim*), with the deity emerging spontaneously out of the vibrating sound of the seed alone together with the full entourage within the mandala. Furthermore, in the Atiyoga practice or “Great Completion” (*rdzogs pa chen po*) listed as the ninth vehicle or *yāna* in the *rNying ma* tradition, one realizes that everything in both the cyclic existence and in the state beyond suffering, *saṃsāra* and *nirvāṇa*, is in the nature of primordial wisdom of the spontaneously arising *dharmakāya*.⁴² In Atiyoga it is realized that mandalas have no limitations. They are all pervading dimensions appearing as limitless nuclear spheres of luminosity (*thig le*) in five colours, in which the Five Buddhas are not

38 The Tibetan Tripitaka, No. 4276, Vol. 80, translated by the author.

39 Snellgrove's adaptation from a passage in the *rNying ma pa* ritual “Union of the Precious ones” (*dKon mchog ,snyi ,dus*), in Snellgrove 1987: 201.

40 There is a difference of levels in the tantra classes.

41 See more detailed Loseries 2013a: 64–69.

42 On the Nine Vehicles see Lingpa and Thondup 2008: 63ff.

separate from each other. Their appearances are limitless, from tiny sparkles (*thig phreng*) to giant bubble like visions of pure rainbow light, without form, just luminosity, defined as the self-appearance of primordial wisdom (*ye shes kyi rang snang*). In each and every pore, in each and every hair of each Buddha appearing in these pure mandala spheres are further uncountable Buddha fields and Buddhas, without differentiation of smallness or largeness.⁴³

The symbolism attached to the different deities prescribed in the mandalas in general are difficult to behold and keep track of, unless one understands that each decoding refers to different levels of understanding reality. The so-called outer mandala serves as a support to the six sense perceptions of the world of appearance: seeing, hearing, smelling, tasting, feeling and thinking. This is the experience of connecting, the correlation of one point to another. The personal experience of the total situation, regardless whether pleasant or disturbing, creative or destroying is a feeling of the reality of the mandala. It is without prejudice a pattern which connects us with the rest of the world. In tantra all factors of existence are utilized, negative and positive, therefore the entire cosmos is considered to be a mandala. Mandala means totality and not an economic compromise for a mediocrity of bad and good.

The inner mandala is a second kind of existence, namely the physical awareness in relation to reality without disguise, masque or automatisations. The view of the inner mandala is awareness which liberates; it is a dignified liberation, where the feeling of indestructibility is always present and where space opens for spontaneity.

The secret mandala is the mandala of the sacred sphere. It is the simplification of our psychological behaviour towards a feeling of awareness and spontaneity, where we do not hesitate to deal with our emotions. In the secret mandala all emotions are merged. They are all the same problem, the same hope, and engendering at the same time the seed of freedom as well as the seed for entanglement. The Tantrik way of dealing with conflicting emotions is extremely disciplined and personal; therefore we speak of a secret mandala.

In Tantrik Yoga practice the discovery of the vajra body or body of energy within our physical and psychic system is the highest experience. The realization of the vajra body within the mandala is a gradual path of creation and dissolution via meditations combining basically calm abiding (*samatha*) and clear insight (*vipassana*). Three levels of experience are relevant: the outer experience of a physical body, the inner experience of a subtle body and the secret experience of the union of form and space. At the secret level of subtleness in this dimension of direct experience no further supports such as breathing techniques etc. are needed.

In order to realize the pure vision of mandala in daily life it is necessary to recognize that all factors of life are somehow connected with each other. This common factor is called space. Space is the fundamental principle of mandala. This principle allows chaos to be methodical and also order to be chaos. Within the mandala the experience of reality is space stability which reflected through the process of integration of the three levels of experience—outer world, body and emotions—lead to the revelation of chaos as order.

Physical and subtle or energetic existence are experienced directly in the sphere of timelessness, where each and every phenomenon becomes the energy play of space, without the dividing veils of judging and categorizing perception, clear and full of warmth, at times drunk with the bliss of the void.⁴⁴

43 From a teaching cycle by ven. Gangtheng Tulku on *rGyal ba' dgongs pa'i rGyud*, Plaige 24th August 2004, personal notes preserved in the archive of the author.

44 See in detail Loseries-Leick 1995.

From the precise lists of deities which occupy these three main mandalas of “Diamond Spheres” contained in the *Niṣpannayogāvalī* it seems that its author, Abhayakara Gupta, deified everything that was sacred in Buddhism.⁴⁵ The twelve *bhūmi* or heavenly stages acknowledged in Vajrayāna were all deified with a human form, colour, weapons and symbols. The twelve *pāramitās*, essential accomplishments of a Bodhisattva (preciousness, generosity, discipline, patience, endeavour, concentration, insight, method, prayer, power, wisdom and diamantine action) are personified as goddesses, out of which only the form of the Perfection of Wisdom, *Prajñāpāramitā*, is widely known. In the Nako Lotsawa Lhakhang she occupies a prominent niche of the *sanctum* in the form of a (reconstructed) polychrome clay image.

The *vāsitā* goddesses mentioned stand for the control acquired by a Bodhisattva over his mind, longevity etc. The twelve *dhāriṇi* refer to the vibration of mantra recitations repeated a hundreds thousand of times, which pervade eventually the mind-stream, the power of speech and the subtle bodily channels of the practitioner, aiming at a complete transformation of body, speech and mind into a totally pure and transparent Diamond Being (*Vajrasattva*).

The four *pratisamvit* are the branches of logical analysis: *dharma* (nature), *artha* (analysis), *nirukti* (etymological analysis) and *prativhāva* (context), here again pictured as goddesses with pertinent colouring and weapons.

The editor of the *Niṣpannayogāvalī* Benoytosh Bhattacharya calls it “a craze of the time for deification” amongst the Vajrayāna Buddhists in his introduction, which even found its way into China. He also commented on the large number of Brahmanical (he speaks of Hindu) deities included in the Buddhist mandalas and their subordinate or sometimes humiliating position, seeing in it a conversion stratum of the Buddhists for securing a numerical superiority; or for presenting a united front against the cultural penetration of the Semitic people into the subcontinent, who already had invaded Central Asia and Iran. In the Dharmadhātuvagiśvara Mandala i.e. ⁴⁶ Trilokavijaya (“Vanquisher over the three worlds”)⁴⁷, the fifth of the twelve *krodha* deities, has one leg on Maheśvara and the second on the breast of Umā, Herukavajra tramples on Brahmā and consort etc. The question of syncretism or amalgamation of Brahmanical deities into the Buddhist pantheon has been treated in detail by Seyfort Ruegg.⁴⁸ He views the phenomena as interplay between the *laukika* (“mundane”) and the *lokottara* (“transmundane”). The *laukika* divinity could be (1) a projection or emanation (*nirmaṇa*, Tib. *sprul pa*) of a *lokottara* being, (2) a respectful submission to the *lokottara* entity, and (3) a forcible subjugation. Submission and subjugation are associated with a commitment (*saṃvara*, Tib. *sdom pa*) or promise (*dam bca*) to protect the teachings after having been “tamed” (*’dul ba*) or trained for the Path of Liberation. There are placed beyond the fourth circle of the mandala, indicating their marginal integration into the Diamond Sphere; as without confines, centre or limit, certainly all aspects of divine revelation find a place in Vajradhātu.

Particular attention may be paid also to the Sixteen Bodhisattvas, of which the order of appearance differs in the three mandalas, as mentioned earlier. Maitreya as the leader of the Bodhisattva congregation in the Vajradhātu and Durgatipariśodhana Mandala is either identical with Vairocana or with Akṣobhya, or depicted as four-armed and of golden colour. As the four-armed Maitreya he holds his main hands in the *dharmacakramudrā*, the right second

45 Compare Bhattacharya 1949: 19ff.

46 See also Luczanits 2008.

47 The image of the female deity Trilokavijaya has been part of the official seal of the famous Nalanda University flourishing during the Pālā dynasty in India. A copy is preserved in the Patna Museum.

48 Seyfort Ruegg 2008; see also review by the author in Loseries 2013b.

hand is in *varadamudrā* fulfilling wishes and the left holds a *nāgakeśara* flower with leaves. In the Dharmadhātuvagiśvara Mandala the Bodhisattvas are under the leadership of Samantabhadra, who is yellow in colour and two-armed, holding an *utpala* (night lily) and a sword in his left hands and displaying the boon-giving gesture (*varadamudrā*) with the right hand. In the Vajradhātu Mandala listed as the twelfth, he is identical with Amoghasiddhi with a Garuda as *vāhana* and displays the *abhayamudrā* for protection. In the Durgatopariśodhana Mandala, also listed as the twelfth, he holds in his right hand a branch of jewels and his left is placed on the hip.⁴⁹

The emanation of the cosmos from primordial awareness is represented by the Five Tathāgatas with Vairocana in the centre. All are seated in the diamond posture and adorned with the jewel ornaments of *sambhogakāya* and dressed in the threefold robes of a Buddhist monk. The Five Buddha Families unravel what is for us the impenetrable mystery of the omniscient Buddha Mind. They stand as separate Buddha wisdoms while we become attuned to them individually, until finally effect their synthesis to regain the irreducible and pristine awareness of which they are *sambhogakāya* manifestations.

Vairocana (*rNam par snang mdzad*), the “sun-like”, in the centre, according to Lokesh Chandra symbolises “germinal luminosity”⁵⁰. The idea of the cosmic Buddha Mahāvairocana might have originated from the Vedic deity Asura, who is related to the Zoroastrian light god Ahura Mazda.⁵¹

According to the concept, everything emanates from him and our regeneration and sublimation is possible by virtue of his intimate essence. Seated in the diamond posture he is white and fully luminous, the primordial light of pure awareness defeating ignorance, and the root of suffering. Like the sun he is ever present in all directions. Accordingly he is represented in some iconographies with four faces, a form which is called Sarvavid-Vairocana (*Kun rig*), the “all-knowing Vairocana”, as the embodiment of the Wisdom of Absolute Space (*dharmadhātujñāna*) as the central substratum of being. Following the system of the Five Buddha Families he appears out of the state of voidness by the vibration of the seed syllable OM, the symbol of pure, intrinsic awareness. His consort is Ākāśadhātīśvarī, the Lady of the Celestial Sphere. Vairocana’s symbol is the Wheel of Dharma; thus Vairocana holds the reliability of Buddha’s teaching (*dharmadhrik*). His hands are in the *dharmacakramudrā*, i.e. the hands placed in opposite ways with the index finger clasping the thumb showing perfection of analogy. With this *mudrā* he sets in motion the Dharma Wheel of the Yoga Tantras. Vairocana is wearing the five-jeweled crown and the ornaments of *sambhogakāya* and is seated on a lion throne.

In the east Akṣobhya is sitting in the vajra-posture, blue in colour, and holding a five-pointed vajra as his symbol. The right hand touches the earth. He represents mirror-like wisdom (*ādarśa-jñāna*), reflecting all phenomena without entering into discrimination. His throne is supported by four elephants. Like his name “The Unshakeable” he stands for firm resolve to enlightenment. His symbol is the vajra and with his entourage constitutes the diamond section of the mandala. In the south is yellow-hued Ratnasambhava, his right hand in the gesture of granting wishes (*varadamudrā*) while the left rests on his lap with the palm turned upward. Representing the wisdom of equipoise (*samatā-jñāna*), the certitude of identity with all, he is seated on a throne supported by Garudas. His symbol is the jewel. In the

49 For further details see Tachikawa 2001 and Bhattacharya 1949.

50 Chandra 1996: 47.

51 See Yamasaki 1990: 3.

west resides Amitābha, red in colour like the setting sun. His hands are in mediation gesture (*samādhimudrā*) holding an alms bowl. He is seated on a peacock throne and represents discriminating wisdom (*pratyavekṣaṇā-jñāna*) which gives an exact outlook on nature and its objects. His symbol is the lotus (*padma*). The north is occupied by the green Amoghasiddhi on a throne supported by horses, who expresses all-accomplishing wisdom (*kriyā-sādhanas-jñāna*) of wholesome actions. He represents the Karma Family. The Five Tathāgatas are also related to the five *skandha*, the Five Elements, the Five Mind Poisons, etc.⁵²

Insight into these analogies are of extreme importance for the experimental yogic experience of the mandala, as—according to the Tantrik principle—outer and inner phenomena are inter-related, i.e. the alchemy of vision in Tantrik practice is based on the physical body, the channeling of energy and of the power of mind. The five *skandha* (*phung po lnga*) or “aggregates” which make up our individual identity, namely physical appearance (*rūpā*), feelings (*vedanā*), perceptions (*samjñā*), habitual patterns (*samskāra*) and consciousness (*vijñāna*), are transformed into the Five Tathāgatas. The Five Mind Poisons i.e. ignorance, hatred, desire, envy and pride are transformed into pristine wisdoms. The Five Elements, of which the body consists—earth (bone and flesh), water (blood and lymph), fire (temperature), wind (digestion, breathing) and ether (cell growth)—composed at the time of birth, decomposed at the time of death, are the Five Tathāgatas. All are based on pristine awareness, i.e. Vairocana, they also manifest the moods of the environmental seasons: the all-promising spring, fresh and full of *Tatkraft*, i.e. Amoghasiddhi, green and sprouting; the summer, Amitābha, full and radiating; the autumn, rich and wishfulfulling, i.e. Ratnasambha; the winter, crystal clear and crispy, ever-enduring, i.e. Akśobhya.

The five-pointed vajra as the important implement of Tantrik practice symbolises at one end of the tool the Five Tathāgatas with Vairocana as the central spade and on the other side the five *skandha*, with consciousness (*vijñāna*) mirroring Vairocana and patterns (*samskāra*) reflecting Amoghasiddhi. They are joined in the centre in a globe or ring, symbolizing the void.

The bell (*gaṅṭha*) in Tantrik ritual, is the insight (*prajñā*) which joins them in union extending out from the centre sphere.

Also the number of deities in the cycle is of significance. The 36 deities of Vairocana’s entourage refer to the 36 spheres (*dhātu*) or elementary categories. But 36 is also the number of letters of the associated mantra, the power of sound or creation and thus again, the origin of things. As in all mandalas the deities are not listed arbitrarily, but arranged according to a pre-established and fixed order which is symbolic. The variety of the mandalas is an expression of different modes and methods of realization.

While the class of the Cārya Tantras consists only of three Buddha Families (Buddha, Padma and Vajra), in Yoga Tantra as a fourth is added the Ratna Family, as the root of giving, while the Karma Family represents the activity of giving.

The four families are related to the Four Mudras and their divisions: body is related to *mahāmudrā*. The material cause of the “Great Seal” is the visualisation of the deities, each with a five-pointed vajra in the heart. Mind is related to *samayamudrā*, by which the wisdom being (*yes shes pa*) is drawn with JA HŪM VAM HO and subdued, and united with the *samaya* being (*dam tsig pa*) by reciting VAJRASATTVA SAMAYAS TVAM AHAM (“I am the diamond being, I am you”), thus transforming the five *skandha* of our being into diamond essence i.e. void. Speech is related to the *dharmamudrā*. Thereby one visualizes in the throat of each deity the syllable HRIH on an eight-petalled lotus. The central petal transforms into a tongue with

a five-pointed vajra on top, touching the lips. Thus the tongue is empowered with the mantra OM VAJRA JIVA (“Vajra Tongue”) and the syllables of the *dharmamudrā* such as VAJRA JÑĀNA (“Vajra Wisdom”) are arranged in a circle within the centre of the vajra. Activities are related to *karmamudrā*. Visualising a double vajra in the heart of each deity as the essence of action power, one imagines various offering deeds performed by the deities such as dancing, singing, eating, drinking etc. representing the unity of the deities within the void.⁵³

DIAMOND SPHERES AND WORLD VIEWS

According to the Vairocanābhisambodhi Sutra Lord Vairocana dwells in the “Palace of the Diamond Sphere of Immense Light”, very beautifully decorated with royal jewels, having neither centre nor boundary as it had been imagined by the Tathāgatas. Seated on a lion throne he is surrounded by “Wisdom Holders” (*vidyadharas*) and Bodhisattvas like a storehouse of inexhaustible ornaments (*rgyan*) of the sameness of body, speech and mind. The Bodhisattvas perceive that all activities of Vairocana of the three gates i.e. body, speech and mind are directed towards teaching the means of the Secret Tantra (*gsang sngags*, i.e. tantra) in all spheres of living beings. Thus the mandala of Vairocana is nothing but omniscience (*sarvajñāna*), the totality of all spiritual existences all over the world.⁵⁴

The inner circle of the mandala represents the Buddha as ultimate reality (*dharmakāya*). In the outer circle Buddha enjoys the fruit of all meritorious deeds in *sambhogakāya*. The principle of mandala as a circle is that the entire mandala is identical with its centre. There are two ways of access to the epicentre: from the outer circle (or the bottom line, i.e. *nigama*) through the eastern gate after fulfilling all necessary stages of the process for attaining enlightenment during the long period of the “Three Great Unaccountable Aeons” of accumulating the two-fold merit of wisdom and virtuous deeds (*ye shes dang bsod rnam gyi tshogs*) and ritual initiation (*abhiṣekha*); or from within (*āgama*), realizing that one is the very diamond being at the centre since the very beginning. These two processes are not opposite in my opinion. While Shinichi Tsuda’s in his “Critical Tantrism”⁵⁵ on the basis of two texts, Vairocanābhisambodhi Sutra and the Tattvasamgraha Tantra sees here—strictly adhering to the chronological development of *Mahāyāna* thought to tantra—two diametrically opposite characters, I see here—as a practitioner—rather a lateral process of meditative experience, similar to the riddle of the egg and the hen—unsolved and ever enchanting. When *nigama* is “the right hand path”, *āgama* is “the left hand”. They can also complement each other: improving oneself (*nigama*) for the betterment of others as a spontaneous outflow of compassion (*āgama*). After passing the wrathful gate-keepers and accessing the numerous floors of this diamantine divine palace, where in each corner and direction female or male attendants in different functions—none other than the diversity of my purified conflicting emotions—are watching every step (of breath) finally arriving at the very lion throne of immense light, facing the adamantine being—which is “me” and none other. This experience gives me the confidence to start from the centre as the deity to spread and emanate enlightened activities as “ornaments” for the welfare of beings; in the mandala personified as the Sixteen Bodhisattvas. Each individual Bodhisattva is called an ornament as long as the world of miraculous transformations of all merits (*vikurvaṇna*) is placed upon the world of natural existence (*adhiṣṭāna*). All phenomena

53 Notes from the private archive of Armin Akermann, Vienna 2008.

54 See the reference in Tsuda 1978: 176.

55 Tsuda 1978.

are delighted in as “ornaments”, an essential realization also in the practice of Great Perfection (*rDzogs pa chen po*), “as clearly as each pebble on a beach of golden sand”.⁵⁶

The universal matrix of ultimate reality innate within each and every living being is to be observed as without essence for improving the wisdom of enlightenment or insight (*prajñā*) in order to direct one’s attention towards complete enlightenment (*abhisambodhi*). At the same time—and not in sequence, as for my view—this realization of being in the very epicentre from the very beginning is the cause for reaching out to the outer circumferences of the mandala and beyond—although Diamond Spheres are without fence—in universal, equipoised compassion. This universal compassion is reflected within our individual minds and realized by personal exertions (*upāya*) for the benefit of others. The union of *prajñā*, the insight for self-recognition (*svārtha*) and *upāya*, the exertion for the benefit of others through compassion meet within each individual, creating the world of Vairocana, creating the limitless Diamond Sphere with the seed of enlightenment (*bodhicitta*). When this seed of enlightenment (*bodhicitta*) in this world attains great bliss i.e. within the central psychic channel (*avadhūtī*), we speak of enlightenment.

Accumulations of wholesome deeds are not in vain. They are stored in one’s mind stream like a storehouse of energy constituting the necessary material for attaining enlightenment. One needs to complete this chain of action (*phrin las mthar phyin*), as each and everyone is responsible for the continuation of the world, i.e. the Diamond Sphere of Vairocana. The world of reality, the omniscience (*sarvajñāna*), or Vairocana as ultimate reality (*dharmakāya*) continue to exist for its own sake, simply because existence itself is good. The positive accumulations of merit equate the negative and the innate equipoise results.

The Diamond Sphere of Vairocana is thought to exist not as an objective, solid substance, but as a conditional existence without essence (*sūnya*). It exists as long as certain conditions are complete: the seed for enlightenment (*bodhicitta*), compassion (*karuṇā*) and the skill to benefit other (*upāya*) in order to recognize the nature of one’s own mind as it is.

Universal wisdom (*sarvajñāna*) is equal to ultimate reality and the mandala of Vairocana. It has to be realized through the personal effort of penetrating one’s own mind to the very foundation (*bodhimaṇḍa*) which is the centre of the mandala.

The structure of the world is composed interdependent of individual existences. Omniscience as the totality of interdependence also serves as a basis of natural ethics helping people to decide their practical behaviour in the world. According to Buddhaghya (c. AD 800) in its total structure the mind of a person consists of innumerable layers of operational minds accumulated since the first origination of mind directed towards enlightenment until enlightenment. These horizontal and vertical monides are the material cause of Vairocana.⁵⁷ The world of Vairocana is expressed in a globular form composed of all the lives of all sentient beings, i.e. the accumulation of immeasurable layers of minds concentrated towards Vairocana. The entire mandala is the *dharmakāya* of Vairocana, while the centre is his *sambhogakāya*. While with the *nigama* approach the mind decreases in darkness and increases in brightness as it ascends to its course towards the centre, i.e. Vairocana, the *āgama* approach finds the centre of the mandala or stage of wisdom (*jñānabhūmi*) within, based on the yogic practice of inherent union with ultimate reality which appears high in the sky as the Vajradhātu Mandala.

The diamantine body, speech and mind of Mahāvairocana pervade the entire space filled

56 Oral key instruction in the context of *rdzogs chen men ngag gi sde* by Gangtheng Tulku, France 2005.

57 Comment of Buddhaghya in The Tibetan Tripitaka No. 3490, Vol. 77, 121/1/1 – 232/5/2.

with all Tathāgatas like immeasurable seeds of wisdom. As an aggregate they constitute a substantial matrix which is called Vajradhātu or “Diamond Sphere”. Ultimate reality or omniscience appears as the Vajradhātu Mandala of the Five Transcendent Buddhas to enable the people of this world to unite with it on the basis of Tantrik yoga. Not visible physically it dwells in the heart of all Tathāgatas. Descending from the formless Akaniṣṭha heaven Vairocana showed himself just for a moment as Śākyamuni Tathāgata on earth.

CONCLUSION

The ritual and graphic representation of the three mandalas of Vairocana as depicted in the Lotsawa Lhakhang of Nako became integral to the Renaissance of Buddhism, and as such Rinchen Zangpo as translator of the essential Tantrik texts connected with these mandalas and mastermind of all construction work in Spiti, Kinnaur and Ladakh at his time, embellished the temples with their murals and stuccos. They are reflections of these texts, mainly the Tattvasamgraha, and meditations on it.

Also very popular during the first propagation of Buddhism in Tibet and a favorite subject of the *sPu rgyal* Kings, the Vairocana cycles were dominant art themes from the 11th until the 14th century not only in Western and Central Tibet, Mustang, etc. but also China, Japan and Indonesia, finding in the three dimensional Mandala of Borobudur (9th century AD) a most wonderful expression. Sponsored by mighty rulers the depictions or constructions of the Vairocana mandalas at geomantically important sites could certainly be interpreted as strategical signs of political supremacy. Whether this assumption also applies to the small Nako temple complex is doubtful.

More evidently it appears that these Buddhist mandalas in their abstract complexity were intended to transmit a spiritual sovereignty in a remote border land. But also the inner, yogic experience of the Diamond Spheres tallies with all facets of tantra from the early development of the Vairocanāsambhodi Sutra via Tattvasamgraha, Guhyasamāja, Guhyagarbha Tantra and all the literature and treasures collected under the name of *Bar do thos grol* or “Liberation through Hearing”, popularly known as “The Tibetan Book of the Death”. To this day all adepts of Tibetan Buddhism within and outside of Tibet and in the entire Himalayan range are very familiar with the rituals of the dying and death. Without going into deep analytical analyses or contemplations the local people who visit the temples and make their offerings naturally associate the mandala representations as something beneficial in this life and thereafter.

Decoded through yogic experience the deities depicted in the mandalas can all be experienced as qualities, moods, activities, in short energetic expressions of enlightened awareness which is Vairocana and only exists as long as enlightened aspirations are maintained.

Existence as such is wholesome and good on its own. Many people need an outer control organ or outer support, a father-like figure of some sort to whom to relate, no matter whether mono- or polytheistic. Lord Buddha’s teaching goes beyond such concepts, but also—especially in its Tantrik development—is all-embracing, merging views of the “Middle Way” (*madhyamaka*) with the “Mind Only” (*cittamatra*).

Although the goat-skin garmented women of Nako, bent from hard work, but tireless in spinning their prayer wheels and turning the beads of the rosary (*mālā*), may not have an insight into the philosophical depth of these murals, instinctively they do the only real good: action dedicated for the enlightenment of all, so that the Diamond Spheres of Vairocana may continue.



2.3. Geometric Pattern and Proportional Frame

Gerald Kozicz

The primary experience of an architectural object or setting is usually through the visual. The temples of Nako reflect the principles of the vernacular architectural language—a language composed from basic geometric elements that lead to the arrangement of simple cubic forms. Those responsible for the architectural design of the temples applied local building methods and architectural technology developed in the Himalayan region to shape ideal structures for religious gathering and the performance of Buddhist rites. Concerning the architectural form, the difference between the Nako temples and their North Indian predecessors, which are depicted as the frame for several deities on the main wall of Lhakhang Gongma (*Lha khang gong ma*) and in the design of the gates of the mandala palaces, is only too obvious.¹ The Nako temples, like Tibetan Buddhist temples in general, are introverted structures. The decision to transfer almost all the symbolic content to the interior and leave the exterior form widely bare is further highlighted by the absence of porticos and a stepped or split-level flat roof, which can be found at various other sites across the Western Himalayan region.²

Despite their simple forms, the Nako temples are by no means primitive structures. Their complexity lies beyond the exterior shape of the architectural shelter and the decorative aspect of their artistic content; rather, the complexity can be found within the underlying geometric and proportional patterns that provide the framework for the material art and the visual programme. This framework is composed of the two essential geometric forms that are well-known from the visual conception of the mandala, namely the square and the circle. The interrelation of these two geometric figures within the architectural plan of the Nako temples is not obvious at first sight and is only revealed through comparative analysis with related temples and their plans.

Before the investigation of these principles of design, which will focus on the two most prominent buildings, Lotsawa Lhakhang (*Lo tsa ba lha khang*) and Lhakhang Gongma, a note has to be made regarding the technical preconditions of the temples. Among the temples dating to the Second Diffusion of Buddhism, there are only a few that were built accurately in a technical sense, i.e. with straight walls placed at right angles. These temples include the large foundations built on flat and secure ground, such as Tabo and Nyarma. By contrast, the temples situated at more challenging topographic sites, such as on slopes and small plateaus, had to be adapted through the construction of additional platforms made of stone. Thus these temples usually display distortions of the standard geometry. Right angles and parallel walls become rare features on the plans produced by accurate surveys. Unfortunately, the Nako temples are among the worst cases. The walls of the Lotsawa Lhakhang are not straight.

Fig. 133: Nako temples.

1 The interrelation of architecture and architectural elements depicted in sculpture and painting in the context of Western Himalayan Buddhist Art was discussed by Laura di Mattia (2007: 55–81).

2 Internally, the Lotsawa Lhakhang even lacks the usual step that separates the assembly hall of a temple from the apse. Such steps can be found in all the temples of the same floor plan among the monuments of Nyarma and the Alchi Group. In some cases a raised platform is the only indicator of the central square and apparently the step or platform is of greatest importance (see e.g. Kozicz 2010c: 371). As any centre is also a representation of the highest level, i.e. highlighting the ascendance towards the centre of a vertically structured mandala, the step is a major element.

Fig. 134: Three different types of porticos and porches (Please note that the columns are not shown in this diagram). At the Tabo *gTsug lag khang* (left) the portico is rather an antechamber, the width of which is less than that of the assembly hall. By contrast, the portico of the Nyarma Chorten Temple (centre) conforms to the assembly area in terms of the width of the hall. The Nako Lotsawa Lhakhang (right)—as is the case with all the other temples of the Nako compound—has no veranda, and the apse is hidden from the exterior face by the framing wall.

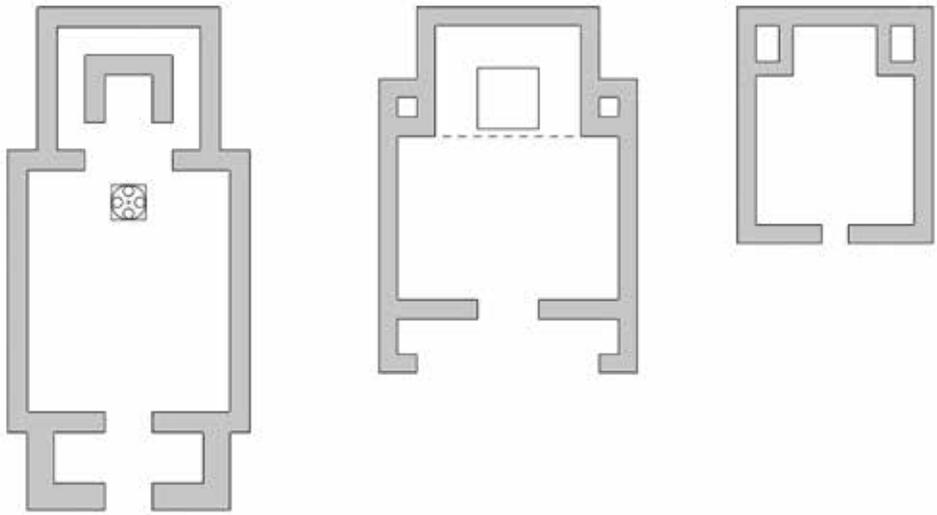


Fig. 135: Comparative diagram of the three temples (f.l.t.r.: Tabo *gTsug lag khang*, Nyarma Chorten Temple and Nako Lotsawa Lhakhang) already displayed in figure 134. In all the cases, there is a clear transformation of the square into a rectangle. Moreover, in each case, the shift is identical to the thickness of the wall. © Gerald Kozicz.

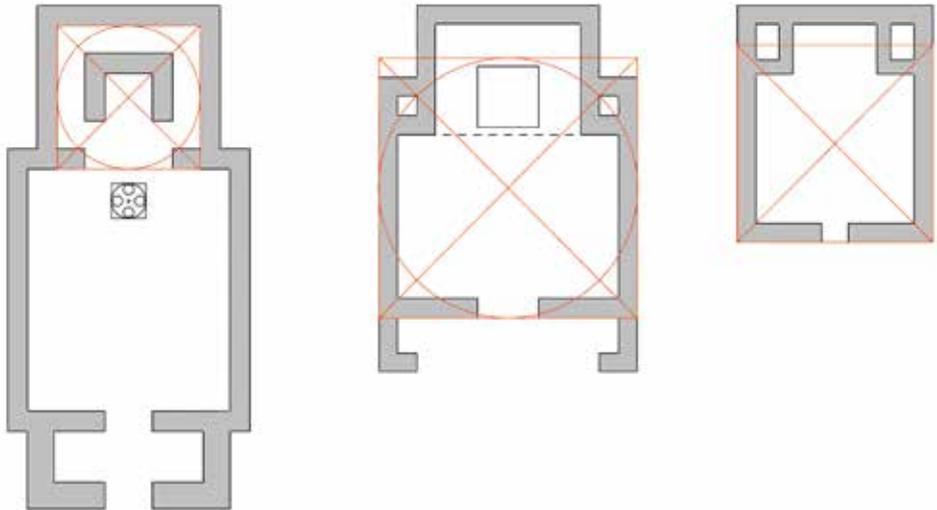


Fig. 136: The left diagram displays the completion of the basic square of the apse and shows its relation to the width of the assembly hall. The right image shows the completion of the basic square of the assembly hall and its relation to the position of the back wall of the apse. The circle defines the ratio between the squares. The side lengths of the square relate to each other like the square's side length to its diagonal, i.e. 1:√2.

Especially in the corners, the walls display irregular curves and even incline. Depending on the level at which a measurement is taken, the results may differ significantly. Accordingly, the plans and measurements published so far differ remarkably from each other. However, since my own measurements taken in 2006 mostly conform to those taken by the Nako Research and Preservation Project team, we are provided with a secure basis for the following geometric analysis.³ The plan of the Lotsawa Lhakhang displays a rectangular form towards the exterior faces, which literally frames an assembly area with a main niche or apse flanked

³ According to Laxman Thakur (1996: 342ff), the assembly hall measures 8.00 x 8.20 m and the apse 4.32 x 2.80 m. By contrast, Christian Luczanits (2004: 78ff) refers to a survey by John Harrison and gives 8.00 x 8.25 m and 450 x 270 m. For the Lhakhang Gongma, Thakur notes a basically square form of 5.50 m, though he mentions a deviation at the south wall of 5.62 m. Christian Luczanits notes c. 5.55 m square. The distinctive distortion of the right angles of the Lotsawa Lhakhang, as shown in the plan provided by Khosla (published by Klimburg-Salter 2003: 40, "Plan 1" and Klimburg-Salter et al. 2007: 8ff), is neither sustained by measurements in any of the other listed publications nor by the more recent surveys.

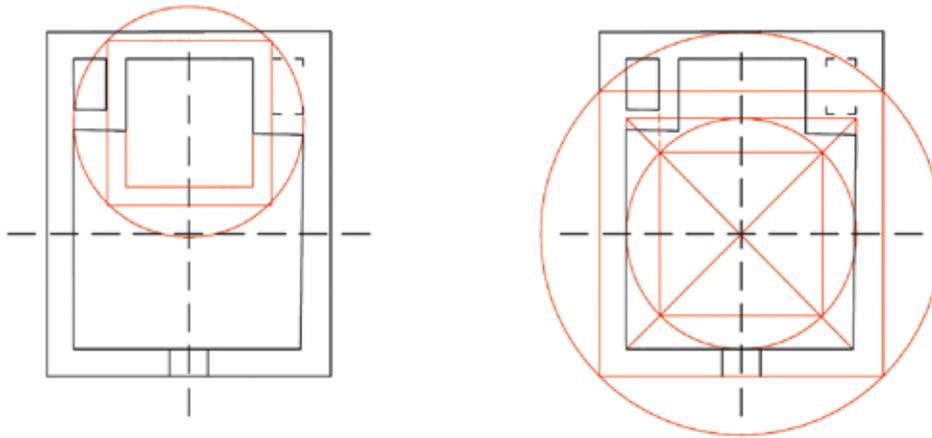


Fig. 136: The left diagram displays the completion of the basic square of the apse and shows its relation to the width of the assembly hall. The right image shows the completion of the basic square of the assembly hall and its relation to the position of the back wall of the apse. The circle defines the ratio between the squares. The side lengths of the square relate to each other like the square's side length to its diagonal, i.e. $1:\sqrt{2}$.

by two lateral chambers. The walls of the frame are thicker than the walls that separate the chambers from the other spaces, thereby indicating the original condition of the external wall. The variable thickness of the walls is highly unusual. It was possible to reduce the dimensions only because the outer frame provided the necessary structural support. The key for the identification of the proportional relations of these elements lies in the fact that the assembly area is rectangular in plan. According to my measurements, the difference between the width (7.83–8.05 m) and the depth (8.33–8.47 m) of the rectangular assembly hall is roughly identical to the thickness of the inner wall. This relationship has been documented in other cases, as well, including several temples that can be securely related to the activities of the Great Translator Rinchen Zangpo, namely the Tabo Main Temple (*gTsug lag khang*) and the three early temples of Nyarma (fig. 135).⁴

In the case of the Nako Lotsawa Lhakhang, the rectangle is the result of a process of transformation that links the architectural plan to an ideal mandala-like diagram. In order to reconstruct the diagram and this process of transformation, it is necessary to understand the apse as the centre of the temple. As the centre of a mandala-structure is square or circular by nature, we first have to “redraw” that original square. Through completion, we arrive at a square that relates to the width of the assembly hall through a circle. If we re-transfer the rectangle of the assembly hall to its basic square, we may again draw another circle through its corners and arrive at the depth of the niche (fig. 136).

Accordingly, the whole geometric structure can be understood as a concentric diagram made of inter-relating squares and circles, and the design process can be reconstructed as follows (fig. 137).⁵ The ideal diagram of the Nako Lotsawa Lhakhang is made of three squares. Since the front wall was completely eliminated—as was the case with the Tabo *gTsug lag khang* Apse—the remaining walls were shaped as a “U” framing the square central chamber. Within the diagram, the distance between the (now U-shaped) central enclosure and the next square remained constant. Therefore, the next squares had to be transferred from square to

⁴ See e.g. Kozicz 2010: 35ff.

⁵ An almost identical design process was applied for the design of the Nyarma Chorten Temple (Kozicz 2007: 49ff). The two temples also share the flanking chambers. In the case of the Nyarma Chorten Temple, both chambers were actually cavities, i.e. completely sealed off. The two temples also share another feature: the height, which is about 5.5 m and 6.0 m (while the average height of an assembly hall of that era was between 4.5 m and 5.0 m).

Fig. 137: Four stages of the transformation process from the basic concentric diagram (left) composed of three square units to the final oblong-shaped architectural floor plan of the Lotsawa Lhakhang (right). The first image displays the proportional relations. Next follows the deletion of the “front wall” of the apse and the consequent transformation of the square shape of the next unit into a rectangle. The third step shows the shift of the central square backwards. The shift conforms to the position of the next unit, which will be almost completely eliminated in the final plan. In the final plan, a portion of the back wall of the third unit becomes the back wall of the temple.

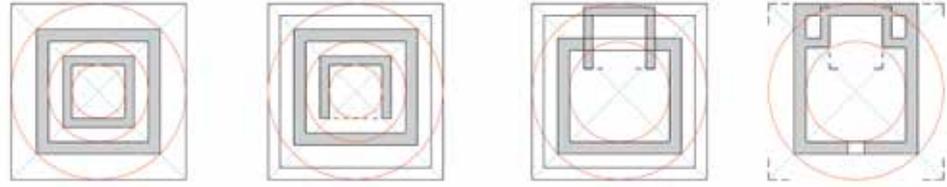
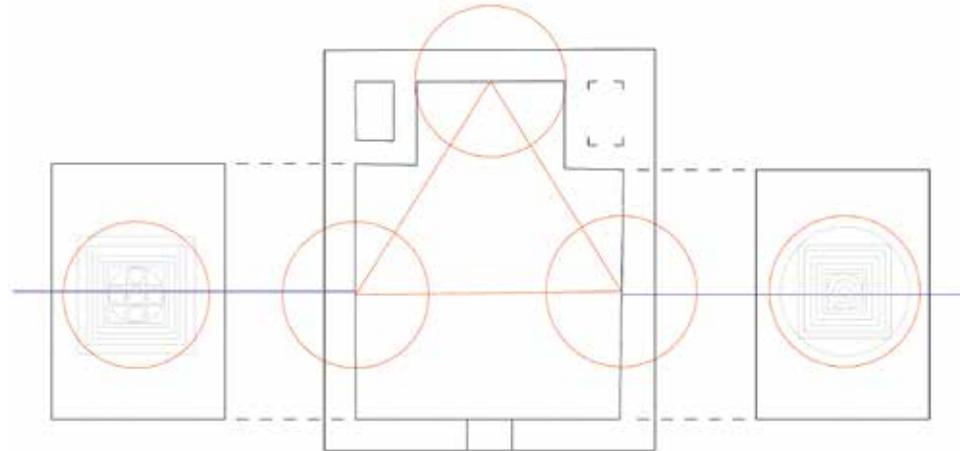


Fig. 138: The corners of the triangle superimposed on the floor plan of the Lotsawa Lhakhang mark the positions of the centres of the mandala circles on the side walls and of Vairocana at the back wall of the apse. The side walls are flipped into the plan. Their diameters are identical and conform to the width of the apse. The positions of the mandalas were surveyed in 2006 and noted (the size of the mandala palace measured horizontally from its south-east-corner to the north-east-corner/ distance of the lower corner to the entrance wall/ distance to the lateral back wall) as follows: Dharmadhātu Mandala (3.68 m/ 2.11 m/ 2.24 m) and the Paṛiśodhana Mandala (Sarvavid Mandala) (2.90 m/ 2.58 m/ 2.42 m). These measurements reflect a slight off-centric shift of the Dharmadhātu Mandala towards the entrance and a slight shift of the facing mandala in the opposite direction.



rectangle by the thickness of the wall. Once the diagram was adapted, the various parts were re-arranged along the main axis of the building. It should be noted that the back wall of the temple is the only remaining part of the third square. Its position defines the shift and the final position of the apse in relation to the assembly hall. Accordingly, the underlying geometry of the architectural plan clearly mirrors the basic Buddhist cosmological paradigms that pervade all fields of religious art. A critical mind certainly might be sceptical about the validity of the process outlined above simply because of the geometric distortion mentioned before. Under the given conditions, the fact that the structures of the complex mandalas on the lateral walls relate to the same pattern, provides testimonial support of this hypothesis. The diameters of the mandala circles exactly fit into the central square of the apse. Furthermore, connecting the centres of the mandalas and the centre of the back wall of the apse, i.e. the position of Vairocana as the central figure of the Five Tathāgatas, results in a perfect triangle.⁶ From an iconographic point of view, this triangle constitutes a perfect relationship between the three most prominent mandala cycles of the era, which can also be found in the temples of the Alchi Group, namely the Dharmadhātu Mandala, the Paṛiśodhana Mandala (or Sarvavid Mandala) and—in the centre—the Vajradhātu Mandala (fig. 138).

It is not surprising that the same triangular relationship can be identified at the Alchi Dukhang (*du khang*) between the centres of the side walls and the centre of the back wall (fig. 139). The architectural plan of the Alchi Dukhang mirrors the same geometric patterns, and also the process of transformation of the ideal diagram into the actual plan is almost identical. The only major difference between the two temples, on the geometric level, con-

⁶ A comparable relationship between the centres of the two lateral architectural elements and the centre of a temple can also be noted at the Nyarma *gTsug lag khang* (Kozicz 2009: 18).

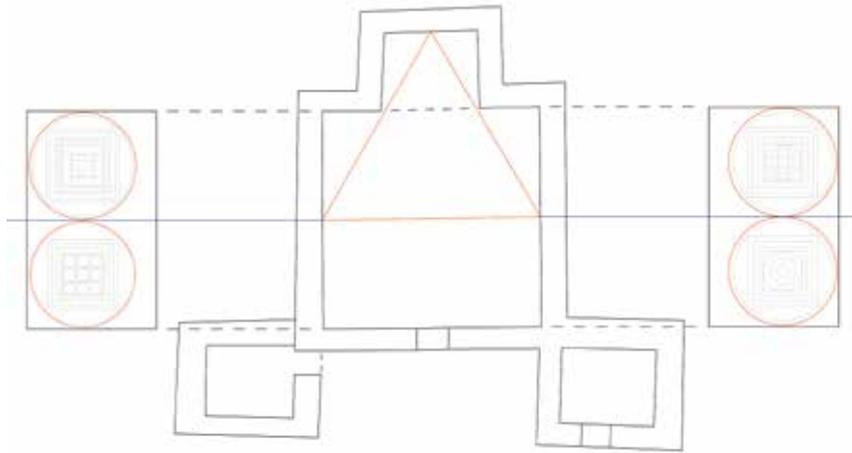


Fig. 139: The plan of the Alchi Dukhang displays a different configuration due to the porch in front of the hall flanked by two tower-like chapels. The side walls are fully covered by two mandalas each (the side walls are again flipped into the plan).

cerns the assembly area in front of the apse. At Alchi, the square was not altered.⁷ Another significant similarity between the two temples occurs in the organisation of their iconographic programmes. Though the Alchi Dukhang displays two mandalas on each wall, the spatial order of the iconographic subjects are almost identical. The wall to the right (perspective from the entrance) is again dedicated to mandalas of the Sarvadurgatipariśodhana Tantra, while on the left side a Trailokyavijaya Mandala is placed next to a Dharmadhātu Mandala. Again, the apse is fully occupied by the sculptures of the central deities of the Vajradhātu Mandala.⁸ By contrast, the sizes of the standard mandalas of the Alchi Group temples neither conform to the sizes of the Nako Lotsawa Lhakhang nor those of the Lhakhang Gongma.

Summarizing all the geometric relations identified so far, we arrive at a complex picture of what lies beyond the “simple” plan of the Lotsawa Lhakhang. While visible in the plan, to those inside the temple, these relationships remain undetected and hidden from the eye. What we are still able to perceive is a harmonic balance between the various elements that constitute the complete iconographic and architectural structure.

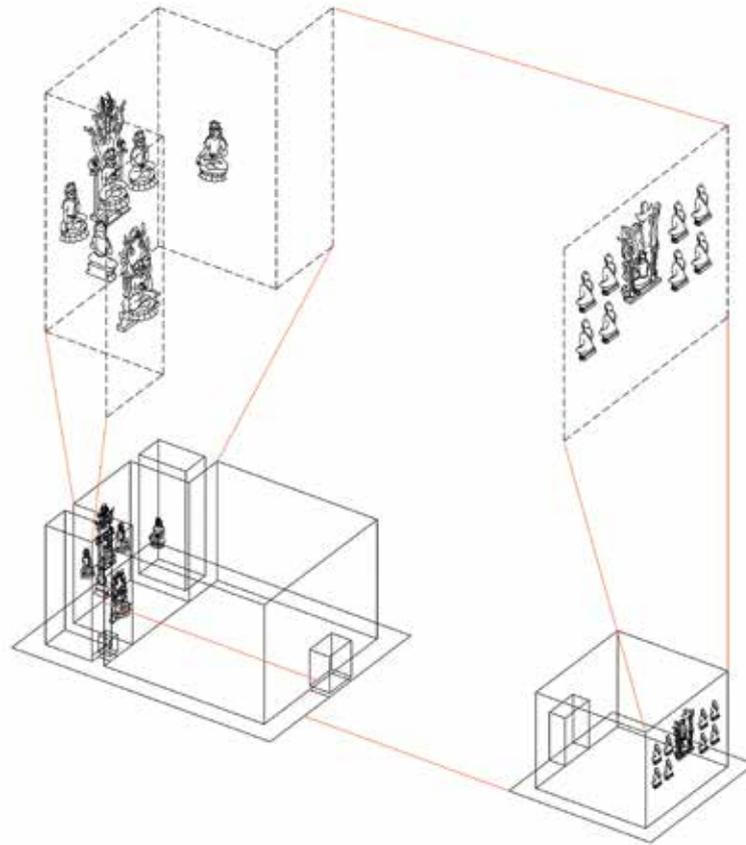
One should not completely rule out the possibility of coincidental geometric interrelations. However, under the current conditions, the fact that the distance of 10.90 m between the Lotsawa Lhakhang and the Lhakhang Gongma is identical to the longitudinal distance⁹, i.e. from the entrance wall to the back wall of the Lotsawa Lhakhang, is not a surprise. Apparently, the internal geometric pattern of the architectural structure of the Lotsawa Lhakhang was also applied beyond the internal system. Though the two temples face each other and might be easily perceived as a paired configuration, it needs to be mentioned that they are not exactly placed along a single axis. Further, the higher position of Lhakhang Gongma adds another diverting feature to the setting. The absence of a porch to any of the structures highlights the

7 According to Romi Khosla (1979: 59), the assembly area of the Alchi Dukhang measures 7.50 m x 7.90 m. This was also followed by Luczanits (2004: 128). However, according to the results of a survey in 2006 in collaboration with Erwin Heine, the Dukhang’s hall is almost a perfect 7.63 m square. The reason for the deviation from the usual pattern has to be sought in the structure of the iconographic programme. A discussion of that subject is beyond the scope of this article and will be published elsewhere (Kozicz forthcoming).

8 For a detailed discussion of the sculptural cycle, see Luczanits 2004: 127ff, and for a description of the over-all programme, see Snellgrove and Skorupski 1977: 30ff.

9 See also the site plan provided by Neumeyer (see fig. 60).

Fig. 140: Axonometric drawing of the spatial setting of the Lotsawa Lhakhang (left) and the Lhakhang Gongma (right). Their iconographic programmes literally face each other.



importance of the open space between the temples. The general setting of temples facing each other is rather unusual as elsewhere temples are commonly placed in line (fig. 140).¹⁰

Therefore, one would certainly expect to find the identical circles within the plan of the Lhakhang Gongma. Interestingly, this is not the case, as the dimensions of the Lhakhang Gongma do not fit into the diagram redrawn above. Therefore a direct link between the two temples on the geometric level cannot be attested. Nevertheless, we can still identify the same compositional relations between the temple's plan and the structure of its iconographical programme within the internal system of Lhakhang Gongma. The two large mandalas of the lateral walls relate to the length of the wall, and accordingly they conform to the floor plan (fig. 141). They relate to the basic square of the temple through another square-circle-square ratio, i.e. $1:\sqrt{2}$. Again, the geometric structure of the iconographic programme conforms to the architectural plan.

The same pattern can also be identified at several sites in Ladakh among the temples of the Alchi Group of Monuments. Creating an overall geometric frame for the artwork is a fitting solution to the question of how to design a temple faithful to the Indian model but within the paradigms defined by the parameters of high-altitude building and living conditions. Apparently, this method was applied all over the region from Kinnaur as far as Ladakh.

Speaking of the widespread use of this method, it should also be mentioned that the mandalas of the Lotsawa Lhakhang were, until recently, considered to be not only the earliest but also the largest mandalas that survived from the Second Diffusion of Buddhism in the Western Himalayas. It is therefore of significant importance that the remains of mandalas of exactly the

¹⁰ This is particularly obvious at Tabo and Alchi.

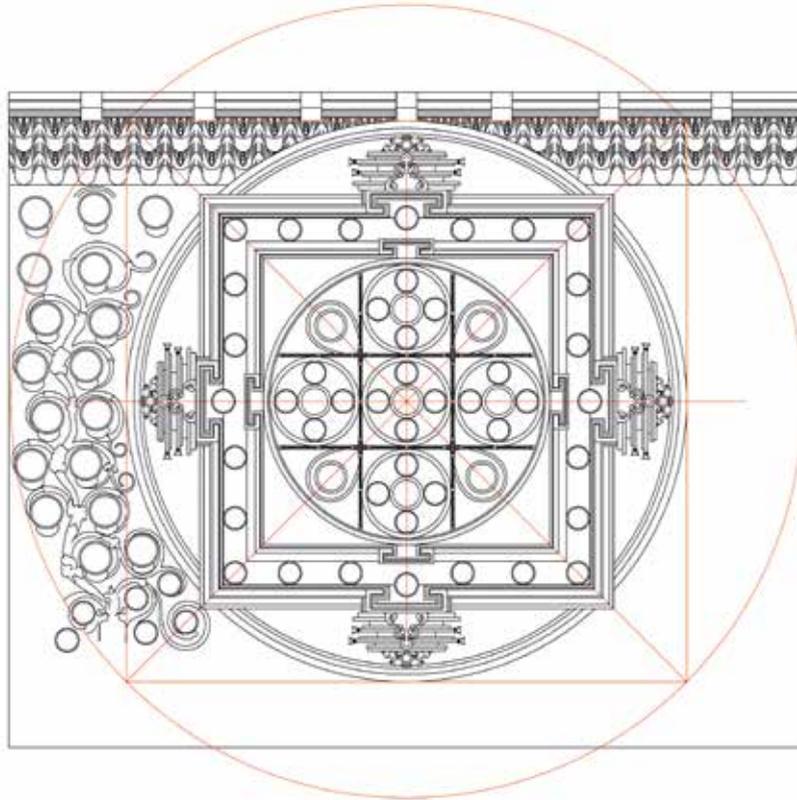


Fig. 141: Side wall of the Lhakhang Gongma with a Vajradhātu Mandala in the centre. The circle conforms to the size of the wall through another corresponding circle. The ratio is therefore $1:\sqrt{2}$.

same diameter have recently been identified on the last remaining wall of the ruined temple of Chigtan in Lower Ladakh. Such striking details may indicate an intense dissemination of practical guidelines for temple architecture and decoration across the Himalayas along the trading routes that once connected the mountainous regions with North India and Central Asia.¹¹

Returning to the introductory remark on the architectural language of the vernacular, we may conclude that the solution for the ideal design could not be found among the architectural components. The elements were of a vernacular nature, and it was therefore impossible to copy the shape of the Indian models. The solution was found in the geometric structure or, we may rather say, on the compositional level. It was not the form of the model that was copied. It was the layer beyond, namely the conception of the mandala, which was adapted to the local cultural and climatic milieu of the Western Himalayan region. Despite the striking visual discrepancy between the simple, almost minimal art-like architectural design and the brightness and splendour of the artistic content, there is a common layer that links all elements and forms as the basis for the perfect background for the Buddhist rites.

Acknowledgement

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¹¹ The Chigtan Temple may be dated to the 11th century and is roughly contemporaneous to the Nako temples (Bayerová and Kozicz forthcoming).



2.4. For Merit and Meditation. Form and Meaning of Ceiling Paintings at Nako.

Christiane Kalantari

INTRODUCTION

In the early Buddhist art of historical Western Tibet a special place is occupied by exquisite depictions of textiles and ornaments on ceilings representing a rich repertoire of decorative patterns, floral motifs, Buddhist symbols, airborne divinities and mythical creatures. These motifs are a consistent feature in the overall decorative programme of these temples and have an important role to play in the formation and symbolism of sacred space.

In contrast to the austere and unadorned external appearance of the massive, cube-like shaped Western Tibetan temples, when standing inside the temple the impression is that of a sacred space attired with a unified religious programme of enormous visual richness and colourful splendour.¹ Typically, the sacred spaces display post-lintel constructions with wooden pillars supporting a grid system of beams (*ma dung*) and rafters (*dung ma*) (fig. 143). Between the wooden constructive elements wooden planks are inserted supporting the ceiling paintings featuring patterns derived from textiles as well as ornaments with figural and floral motifs (figs 144, 145).²

This study primarily focuses on these decorated ceiling planks from the two earliest phases of artistic activities at Nako in the 12th century in the Translator's Temple (Lotsawa Lhakhang, *Lo tsa ba lha khang*) and the Upper Temple (Lhakhang Gongma, *Lha khang gong ma*). After an introduction into questions of textile traditions and devotional practice in a Buddhist temple, the article looks at the artistic and textile historic context of ceiling decorations at Nako, followed by a presentation of selected motifs and their possible religious symbolism. At Nako the majority of motifs on ceilings consists of decorative elements deduced from textiles, which is the case in other Western Tibetan temples as well and which has caused the interest of several authors (cf. Goepper and Poncar 1996; Wandl 1997; Papa-Kalantari 2000; Neumann 2007). This article, however, focuses on a significant but hitherto neglected feature of early ceiling compositions at Nako—namely ornaments representing mythic animals, floral motifs and specific auspicious symbols.³ In particular the rich heritage of the ancient Indic

Fig. 142: Ceiling, Lotsawa Lhakhang.

1 For my brother Patrick Reza. Research and field work related to this theme was continued within the ongoing research project "Society, Power and Religion in Pre-modern Western Tibet: Interaction, Conflict and Integration" (Project P21806-G19), Institute for Social Anthropology, Centre for Studies in Asian Cultures and Social Anthropology, AAS, directed by Christian Jahoda. The project—funded by the Austria Science Funds (FWF)—is based at the Austrian Academy of Sciences, Vienna.

2 Concerning the painting process and technique Romi Khosla (verbal communication, July 2002) suggested that first the grounding was applied before inserting the planks, while the painting layers were directly applied after they have been attached on the ceiling.

3 The late Professor Roger Goepper (1993, 1995) was the first to direct the attention on the importance of ceiling decorations in Western Tibetan temples, looking at the possible textile technique they may mimic at Alchi (Ladakh) and at filiations of some of the motifs. His seminal works triggered the author's interest in questions of ornament in Buddhist temples. Flood (1991, 2009) is the pioneer in the study of "Iranicate" themes of luxury art depicted on the ceilings and the "Muslim-Tibetan" encounter

Fig. 143: Model Translator's Temple, Romi
Khosla (RKDS, New Delhi) 2003.



Fig. 144: Ceiling in Translator's Temple.



as reflected in donor depictions at Alchi. Specific aspects of textile depictions have been studied by Erna Wandl (1996, 1997) who elucidated the background of Indian textile production for this genre at Tabo (Spiti). Giuseppe Tucci (Tucci and Chandra 1988) was the first to interpret early Western Himalayan temple's ceilings as symbolic representations of canopies (see also Klimburg-Salter 1997, 2001; Neumann 2007). Most research for this text was done in the context of the author's MA thesis (Papa-Kalantari 2000) at the University of Vienna, continued in the context of dissertation researches during which the author received many impulses and support from her PhD-supervisor Prof. Jorinde Ebert, University of Vienna, late Roger Goepper and Christian Luczanits.

world of animals and sacred plants and their religious significance in historical Western Tibet⁴ have, as yet, been little studied. It will be argued that this genre is not only important for questions of iconography and theological ideas but also for the reconstruction of the artistic context of the Nako paintings. The article considers how artists constructed a distinctive Western Tibetan Buddhist artistic tradition upon layers of the past.

The second part deals with questions of the relationship between ornament and space attempting an interpretation of these motifs as elements of a Buddhist cosmological vision. Collating new data from examples of ceiling paintings during different periods in Western Tibet as a single corpus allows a fresh perspective on this genre. More specifically this will provide insights into structural principles of this long and refined artistic expression as well as an interpretation of the depicted motifs as elements of superior religious principles.

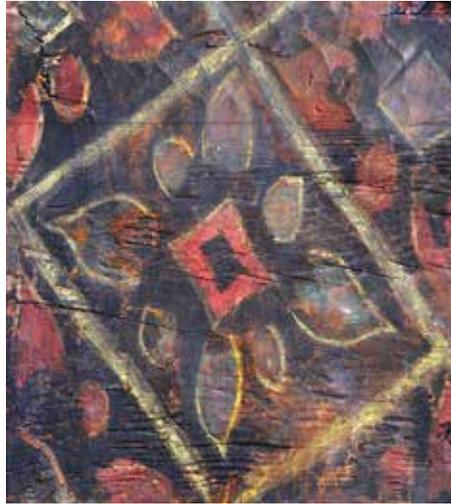


Fig. 145: Ceiling in Upper Temple, Detail.

TEXTILE CULT IN A TEMPLE

An important aspect for the understanding of ornamental depictions in a Buddhist temple are the different forms of devotion and rituals associated with textiles. Tibetan architecture is an expression of forms of veneration through pilgrimage, namely the movement around the building and paying respect to the cult image. The Tibetan term for pilgrimage—*gnas 'khor* or *gnas mjal*—is significant in this regard. *'khor* signifies circle or perambulation of the dwelling place (*gnas*), while *mjal* means encounter, contact or audience with a holy place or cult image (Huber 2006: 41).

In actual buildings the holy path of circumambulation (*'khor lam*) of the sacred space may be indicated by surrounding walls outside the temple such as at the early Nyarma Main Temple (*gTsug lag khang*) (c. 11th century) or the Alchi Dukhang (*'du khang*) (both in Ladakh; cf. Luczanits and Neuwirth 2010). As a singular feature along the internal walls of the Tabo assembly hall sculptures are placed in a position indicating that they are designed to be honoured by walking under them. This form of devotion can be found in relevant texts such as the *Divyāvadāna* (cf. Rotman 2009: 53).⁵ The “holy path” is complemented by the practice of the “cult of the image” centred in the shrine (as at Tabo *gTsug lag khang*) or niche at the rear end of the temple as in the early temples of Nako—which is the spiritually most elevated position and often the ceiling depictions in this zone show the most complex designs (see below). There the holy image is venerated and honoured through a physical encounter (*mjal*) with

4 Animals also prominently feature in wall paintings such as in the image of Tārā and the Eight Perils in the Upper Temple (see for images Allinger 2005).

5 The *Divyāvadāna* (“Divine stories”) describes different sets of efficacious rituals in the temple and it has perhaps the *Mūlasarvāstivāda-Vinaya* as its ultimate source (Rotman 2009: 52). I am grateful to Eva Allinger for discussions on this theme.

precious textiles playing a central role.⁶ In particular textiles such as white scarves of fine silk (*kha btags*) express the devotee's wish of a sensual encounter with the holy image (*sku rten*).⁷ At Nako donor images reflecting these ritual actions are typically depicted in close relation to the respective cult images on the main wall implying that laying down donations of different kinds before the image (see fig. 77; Papa-Kalantari 2007b).⁸ In general, of course the act of donating to garner merit is of central importance in Buddhist belief. Contemporaneous depictions of scarves draped on the pilasters of a heavenly palace at Tabo (*ibid.*: fig. 27) and Lalung best document the practice of this tradition. In addition, the absence of traces of use of the Khartse Jowo (Tshe ring rgyal po and Kalantari 2009; Kalantari forthcoming [c]), a monumental Kashmir-style bronze, allegedly commissioned by the Great Translator Rinchen Zangpo, may indicate that the image was always attired with precious votive fabrics.⁹ The offering of precious textiles to cult images has an important role to play in popular Buddhist rituals up to the present. At Khorchag Monastery richer families purchase expensive silks from Lhasa tailored to ritual paraphernalia in the temples and for robes to be offered to the famous Jowo-statue (Kalantari 2012: fig. 70). Such donations are given on the occasion of important festivals at Khorchag. Old costumes and textiles from the altar have the aura of relics. During rituals of re-attiring these are returned to the devotees loaded with blessing power and they are therefore cut into pieces for amulets (Kalantari 2012: 104).

Judging from the large quantities of votive fabrics in Tibetan repositories and temples (such as at Tabo and Khorchag), they constitute an important aspect of the Tibetan aesthetic-religious space up to the present day the devotees believed the promise in a speech of Maitreya (*Maitreyavyakarana*) to his followers, in which he describes the acquisition of merit by making offerings of precious cloths: "It is because you have worshipped Śākyamuni with parasols, banners, flags, perfumes, garlands, and unguents that you have arrived here to hear my teaching. It is because you have offered to the shrines of Śākyamuni unguents of sandalwood, or powdered saffron, that you have arrived here to hear my teaching" (Conze 1962: 240).¹⁰

In Western Tibetan donor depictions there is also ample historic evidence for the practice of offering fabrics and various other luxury goods to the temple. These assemblies typically represent the consecration of the temple and they may also allude to the idea of sacrifice of royal treasures to provide the "resident Buddha" (cf. Schopen 1997: 258 ff.) and the monastic community (*samgha*) with an income. Piles of textiles, wool and other precious objects are

6 These—rather conservative—forms of devotion are best reflected in the tri-partite, horizontal layout of the Tabo *gTsug lag khang* (see below.)

7 Today, at Nako *khataks* are laid around the neck of the cult statues of the temples, as typical in whole Tibet. In 2004 we have been told that some of them were donated by HH the Dalai Lama and thus they are considered as charged with his blessing power.

8 At Tabo and Nako depictions of offerings which are laid in front or placed on a small altar consist of flowers, incense and butter lamps (as offerings of light). In addition, donor images in Ladakh (Gilgit, Khartse near Kargil, Chagdo/ Baltistan and Alchi Sumtsek show forms of image and stupa worship (representing the Buddha's body and the dharma) with offerings of ceremonial scarves (for images see Papa-Kalantari 2008: figs 18 ff.). Offerings of clothes perhaps entered Buddhism from earlier tree worship via the bodhi tree according to Gombrich 1995: 127.

9 Offering of silks by pious devotees to honour the Buddha are documented from very early on: silk banners with inscriptions testify to this important aspect of Buddhist ritual practice in the cave temples of Dunhuang (cf. Zhao 2007: 58 ff; see also Reynolds 1997). Cf. also Gluckman 2000.

10 Ritual paraphernalia and votive fabrics of baldachins, circular banners of silk (*rgyal mtshan*), silk brocades with gold and silver threads (*gya ser*) wrapped around pillars, decorating thrones and ceilings.

depicted laid in front of the Buddha at Tsaparang, Red Temple (Papa-Kalantari 2007b: fig. 3). Furthermore, the donation of precious fabrics is mentioned in inscriptions related to the temple's consecration at Wanla (Ladakh, c. late 13th–14th century): “Thirty-seven of the intelligent kings of the four-footed animals, (that is) stallions, (all) of the same size, were also given. The extensive (amounts of) gold, silver, silk (,) garments (was/ and) a little bit more than that, the yaks, sheep, mdzo, etc, (...) are inconceivable; the material things, the woollen clothing, etc, it was heaped up like a mountain.” (Tropper 2007: 141).

According to Gregory Schopen, the *Mūlasarvāstivāda-Vinaya* gives instructions that monastics were obliged to make use of offerings of donors (Schopen 1996: 112–114) as a way of generating merit for them (cf. also Rotman 2009: 55). Such votive fabrics may have also been translated into the medium of painting. In particular illusionist depictions of precious cloths on the ceilings may thus be understood as permanent offerings to the Buddha, memorializing the merit-gaining act.

In this context exchanges with regard to the symbolism of honorific textiles between the royal and the religious sphere are significant. As has been first proposed by Tucci in 1935, the idea of a unified, textile-covered ceiling in Western Tibetan temples appears also to be related to the tradition of umbrellas and honorific baldachins which protect and dignify images of gods and rulers in India since earliest times (cf. also Klimburg-Salter 1997, Papa-Kalantari 2000). Significant in this aspect are the early donor depictions of the royal founder Yeshe Ö and his sons in the Tabo entry hall depicted enthroned under a baldachin decorated with scattered lotus flowers. Not only the honorific covers are important symbols of sovereignty at that time, but also the robe of the Royal Lama depicts specific luxury textiles, presumably of silk. These accoutrements can be deduced from the courtly tastes of the aristocracy of the Tibetan empire in Central Asia recalling images of the Tibetan emperor during Dunhuang's Tibetan period, 768–850 CE. These depict the *chen po* with honorific umbrella and the typical Tibetan chuba (*phyu pa*), a long-sleeved coat. This dignifying function of luxury and honorific textiles, as well as sumptuous tents characteristic of Tibetan royal culture appears to have been continued and translated in Western Tibetan temple's concepts to shape sacred space (cf. Papa-Kalantari and Jahoda 2010: 66, fig. 9).¹¹

11 Textile depictions in Tibetan temples not only express forms of devotion and symbolize honorific functions of the umbrella or canopy but they may also reflect the performative aspect of cloths significant for Tibetan semi-nomadic traditions. Up to the present day garments shape sacred spaces for local divinities and they are designed to “invite” them to temporarily reside at a certain place. Clothes create a powerful setting for the appearance of the trance medium of the local protectress in the Tabo Dukhang (*du khang*) (Jahoda, verbal communication, 2009) and background textiles are depicted behind historical representations of the local goddess in the entry hall of that temple (c. end of the 10th century). In theatrical performances by traditional Buddhist storytellers, the *Buchen*, documented at Khar, in the Pin-Valley (HP) a background textile and a carpet are central elements of the accoutrements and they define the setting for unfolding the story (*rNam thar*); the textile is believed to represent the “tent-house”, rainbow or heavenly realm of the celestial beings (*dākiṇī*). The tent shapes an ephemeral room designed for the unfolding of a Buddhist ritual and – together with robes, jewellery, instruments—they are also designed to bestow blessings to the devotee as is described in the recitations of the performers. In the recitation the robe of the *Buchen* is called *me cam*: when turning the body the plaits open equally and the dharma is spread accordingly by them (Kalantari forthcoming [b]).

INTERNATIONAL ELITE SELF-FASHIONING IN A BUDDHIST TEMPLE

The dominance of the material aspect of textiles at Nako appears to reflect the aforementioned status culture of local elites which had their religious-political sphere of influence at the periphery of the kingdom. The material culture depicted in the temples in this region best reflects the complex network of cultural interaction in this border zone. In particular the movement of objects, luxury goods, traded commodities and diplomatic gifts interconnected the different regions. The different cultural horizons and supra-regional interactions of each of the distinctive schools in the art of this region—with Newari, Indian, Chinese, Central Asian and Iranicate Turkic courtly artistic traditions—are best reflected on ceilings and objects of the material culture, contributing to the visual splendour of these temples.

While at Nako depictions of precious Indian cotton cloths, perhaps from famous textile-producing centres in Gujarat, dominate (cf. Wandl 1996, Papa-Kalantari 2000), in later periods new transregional interactions are observable. Likewise the ceiling designs of the Alchi Sumtsek (c. 1200) show a fascinating superimposition of Buddhist motifs of Indo-Tibetan origin and Central Asian Iranicate textiles reflecting status and prestige of the elites in Ladakh and the Islamic and Turkic sphere of that time (cf. also Flood 1991, 2009). One example at Nako shows the *vyala*, the powerful elephant-headed lion in the tradition of Indic mythic creatures (see below, fig. 152) which is found in Alchi in a transformed form as rampant beast in combat; this is typical of luxury textiles from the Islamic sphere and often found in images of royal hunting scenes.¹² Most astonishing is the use of *tirāz*-script (meaning embroidery in Persian language), i.e. pseudo-Arabic Kufic inscriptions shown on the Alchi ceilings (Papa-Kalantari 2008: 292). These motifs indicate *khalat*, i.e. robes of honour manufactured in courtly institutions with inscriptions praising its noble wearer. Such robes may have traveled with diplomatic envoys to Alchi or were exchanged in marriage alliances. Elsewhere this artistic process was termed by this author “medallion style”, denoting a combination of surface patterns which were adapted from luxury textiles endowed with the aura and prestige of courtly workshops and purely Tibetan Buddhist symbolism. These depictions created “ideal textiles” which serve to honour the Buddha and express the magnificence of his realm. Co-notated with beauty, luxury and wealth textile depictions enhance the idea of munificence of the donors who donated the temples for the benefit of the worshippers.¹³ Ornament in Western Tibet thus represents a complex palimpsest of religious and ritual values and cross-cultural elite-dressing.

TEXTILE HISTORIC AND ARTISTIC CONTEXT OF CEILING DESIGNS AT NAKO

When standing inside the temples at Nako and looking up the impression must once have been of a sacred space adorned with lengths of textiles creating almost a trompe l’oeil effect (figs 144, 146 and 147). In the Tabo Main Temple (*gTsug lag khang*)—representing one of the earliest temples of the kingdom founded at the beginning of the 11th century by royal lama Yeshe Ö—real textiles are fixed on the ceiling between the rafters which function as carriers for the paintings. Relevant in this context is the indigenous Tibetan tradition to cover ceilings

12 Another prominent example are ceiling medallions filled with horse-riders combining the aura of post-Sasanian royal hunters with allusions to Gautama Siddhartha’s abandonment of the palace on his horse Kanthaka when becoming an ascetic, the gods lifting his hoofs of his horse into the air.

13 The basis of wealth of the ruling elites in Western Tibet was perhaps primarily gold, as can *inter alia* be derived from the use of gold in the wall paintings.



Fig. 146: Tabo, paintings on portal leading from 'du khang to sanctum.



Fig. 147: Ceiling in Upper Temple.



Fig. 148 : Textile valances, Translator's Temple.

with fabrics which prevent mud or dust from falling down into the temple's inner space as suggested by Roger Goepfer (1993, 1995). In contrast, at Nako pigments were applied directly painted on the wooden planks.¹⁴

As already stated, Giuseppe Tucci (Tucci and Chandra 1988) proposed that such ceiling paintings may symbolise honorific cloths or canopies dignifying the deities who dwell in the temple.¹⁵ This impression is reinforced by depictions of festoons on the uppermost section of the wall (fig. 148): these feature exquisite textiles sewn to wall hangings and studded with jewels, bells and streamers in shape of western neck-ties composed of various patches of textiles. These elements are designed to mark and embellish the zone between wall and ceiling. Such hangings allude to votive cloths and paraphernalia of textiles donated from pious devotees¹⁶; in addition the representation of bells (skt. *ghanta*, tib. *dril bu*) may relate to offerings of sound during rituals of iconic worship in the temple, and also depicted in an anthropomorphic form as airborne spirits offering music, as seen on the ceiling above the sanctum at Tabo

14 This form may have been chosen for economic reasons.

15 Kohler (2006) analyzed the techniques of the ceiling paintings and the composition/structure of paint layers and materials (groundings, pigments and minerals) and came to the conclusion that groundings and layers are comparable that of the wall paintings. Kohler also mentions that, "unlike the sculptures and wall paintings, nearly no over-painting has been identified on the ceiling decorations". (cf. Kohler 2006b).

16 Examples of such clothes feature triangular tabs draped broad bands and streamers. (cf. Zhao 2007: 46 ff).

(fig. 146). In the Nako Upper Temple (Lhakhang Gongma, *Lha khang gong ma*) representations of such festoons are decorated with rows of Indian mythic animals such as sacred geese (*hamsa*) bearing pearl streamers in their peaks—while in earlier periods as shown at Tabo often auspicious lion-faced demons (*kīrthimukha*) emit these valances from their mouths. These mythic creatures are represented typically as crowning elements in Indian temples¹⁷ such as on pilasters or at *torāṇa* (tympans or archways) and portals sacralising the temple's thresholds (*udumbara*). Thus the function of decorative friezes in paintings is also being a marker of architectonic relationship in terms of gate and entry to gods and transcendental nature.

The seemingly overt textile-derived ceiling-decorations in this region lead to the assumption that they may be purely decorative. However, from early on ceiling compositions such as in the Tabo Main Temple (*gTsug lag khang*) (c. mid-11th century) two types of ornament can be distinguished: one type is shown above the shrine-chamber, featuring large lotus rosettes and airborne divinities whose abodes are the heavens dispensing worldly riches above the Buddha (fig. 146). This ornament gives the sacred space a vertical, cosmological dimension and it can be traced back to the old and refined tradition of architectonic ornament on wooden temples of Himachal Pradesh (see below). The second type can be found in the assembly hall of the temple, which predominantly alludes to a textile cover representing an architectonic boundary; the two types are frequently juxtaposed in terms of spiritual progression in a temple also in later periods (see below). Ornaments that allude to illusionist textile covers are a distinctive element in Western Tibetan temples. In particular in the temples from the 11th–12th century onwards—such as Nako—the interest in the representation of precious fabrics becomes a dominant feature, reflecting Tibetan devotional traditions, their importance for trade, local culture of status and courtly piety and representation, as already stated.

A rich variety of representations of fabrics is not only shown on ceilings but also in the wall paintings of Tabo and Nako. They are depicted on *dhotīs* and pillows as seats of deities and as accoutrements of mandala palaces and heavenly architecture (fig. 21). Some motifs can be found both on ceilings and wall paintings, perhaps executed by specialists in complex forms of divided labour and workshop organisation and using pattern books. However, specific intricate designs can only be found on the ceilings, indicating that they most likely represent an independent artistic genre and symbolism.

The multifaceted repertoire of ornaments upon which Western Tibetan artists could draw was *inter alia* enriched by fine details of textile representations seen on contemporary bronze sculptures from the Pāla-period (8th–12th century) in Eastern India and those in the Kashmir-style. Due to the mobility of portable cult images¹⁸—and their great demand from the side of the newly established elite—they were important carriers of motifs and aesthetic values which have contributed to the elaborate language of ornament in Western Tibetan art. These patterns reflect the rich tradition of luxury garments of cotton and complex silks in India and Kashmir, which did not survive as actual fabrics, but depicted as robes of deities and adornments of their thrones and *torāṇa* (ornamental throne-backs). A good example is a fragment of a plank (originally perhaps from the Translator's Temple) decorated with pearled roundels (fig. 149) characteristic of Iranicate luxury textiles which is a leitmotif and characteristic pat-

17 Cf. cornices in Kashmiri architecture, such as those on the Avantivāmin Temple in Avantipur; 9th century.

18 Another factor was certainly the demand of the royal elite in objects of veneration to establish new religious centres.

Fig. 149: Translator's Temple, detail of painted ceiling plank.



Fig. 150: Upper Temple, detail of painted ceiling plank.



Fig. 151: Indian cotton, block printed, Oxford, Ashmolean Museum.



tern often found as pattern on *dhotīs* such as of the famous Khartse Jowo (Kalantari forthcoming [c]) as well as on cushions of the Buddha of Kashmir-style bronzes and which is also present at Tabo (cf. Papa-Kalantari 2007b: figs 21–22 and Lee-Kalisch 2006: fig. p. 159, fig.11a).

In particular the Upper Temple shows illusionistic representations of textile techniques and an interest in the haptic quality and materiality of precious cloths (figs 147, 150). These different surface patterns have been painted on each section of the ceiling partitioned by beams and rafters. The main types consist of grid-patterns with squares or beaded roundels, rows of pearl roundels with

flowers in the interstices and stripe patterns in alternating colours with changing decorative bands. They show a restricted palette of dark shades of blue and red as well as white pigments, and the outlines are rather crude; all this may indicate that they have been redrawn in later periods. Most of the colours and systems of organisation of motifs are typical of Indian cotton cloths using reserve techniques.¹⁹ An “original” state of conservation may perhaps be represented in a section showing small-scale patterns in pastel-like red and blue colours recalling the technique of *bandhani* or *plangi*, i.e. tie and dye resists. A widely used complex design at Nako is composed of running animals organised in horizontal stripes with fine details, which may be preserved in an almost un-altered condition as well (fig. 150). In these stripes figural depictions alternate with lotus vine friezes (*padmalatā*) and strings of pearls. The animals strongly recall Indic ornamental culture with their sacred geese, gazelles adorned with ribbons, camels and hybrid mythic creatures. These motifs in characteristic colours of blue, red and white have closest parallels to Indian resist-dyed cotton textiles. A possible example for comparison with Nako is an Indian cotton fabric featuring running animals alternating with foliage in the Ashmolean Museum, Oxford (fig. 151).²⁰

DIMENSIONS OF COSMOS: MYTHIC HYBRID CREATURES ON THE NAKO CEILINGS

While the main interest of the artists on the Upper Temple’s ceilings appears to be the demonstration of perfect mastery to imitate decorative patterns and textile techniques, in the Translator’s Temple a different approach towards ornament featuring elaborate surface patterns with specific figural depictions can be found. Unfortunately only a small part of the original ceiling panels has been preserved, and also their present position is result of several changes in the past. A rich repertoire of decorative geometric patterns can be found on the remaining planks of this temple such as interlocking circles, pearl-studded niches and small-scale surface patterns featuring roundels and squares; they all seemingly imitate cloth (fig. 144). We find as well motifs which draw from a repertoire of decorative vocabulary represented in different media (such as in architectural ornament of earlier wooden and stone temples, see below)²¹. One of them consists of repeated flower-filled lozenges (fig. 145), which are found as surface patterns or alternating with bands of rosettes (fig. 154).

I will now look on a distinctive and as yet little studied feature namely animal depictions on the temple’s ceiling, their symbolism and possible origin in North Indian temple architecture.

One section of the ceiling features intricate designs—using a rich palette of costly pigments—composed of detailed complex figural motifs (figs 152, 153). They appear to be derived not only from textiles, but also from the rich traditions of ornament and its floral and

19 Only a few early fragments of Indian trade textiles have survived in museum in Europe and India, most of them excavated in Al-Fustat—the old capital of Egypt—and along the shores of the Red Sea (see Barnes 1997). Erna Wandl (1996, 1997) described many motifs on the Tabo ceilings and proposed as possible models resist-dyed fabrics from the textile producing centres from western regions of the Indian subcontinent in particular Gujarat and Rajasthan.

20 The ¹⁴C-analysis allows this fragment to be dated to the 10th century. It displays large-scale motifs on a relatively coarse fabric, which might suggest it was used as a canopy of textile drapery shaping a sacred space in a temple (Ruth Barnes, verbal communication 2003).

21 Comparable palmette-like foliated lozenges are carved into the lower faces of brackets in the śakti Devi Temple, Chattrārḥī (Chambā, Sutlej Valley, HP, c. 10th century); (fig. 154) and they are shown as decorative bands on portals of the rock-cut temple of Masrur (Kangra Valley).



Fig. 152: Translator's Temple, detail of painted ceiling, featuring mythic animals.

animal symbolism in India. Such motifs are typically represented in the medium of stone or woodcarvings and in specific positions in the temple, such as *torana* (arches, framing niches and portals), pilasters and ceilings. One of these patterns at Nako is composed of crossing



Fig. 153: Translator's Temple, detail of painted ceiling, featuring mythic animals.

bands of pearls forming two parallel rows of squares; in each pair of squares are symmetrically arranged animals represented in playful, lively postures or freely moving as if flying or floating in water. Among the creatures are rampant lions, paired birds as if playfully chasing each other, peacocks and hybrid mythic creatures with characteristic exuberant bird-feather or cloud-foliage tails such as *kinnara*, *makara* and pairs of horses with heads twisted back. These recall animals with exuberant foliate tails in a local post-Gupta style which adorn wooden



Fig. 154: Chattrārḥī (H.P.), śakti Devi Temple, detail of capital.



Fig. 155: Khorchag, wooden portal, detail.

pilasters in the śakti Devī Temple, Chattrārḥī (fig. 154, Postel et al. 1985: figs 45–48) and the Laksāna Devī Temple in Brahmaur, both in Chambā (HP, c. 10th century) (Postel et al. 1985: 37–43). The richly adorned Nāgara-type Hindu Temple of Bajeśvari (Chambā) features miniature shrines consisting of niches flanked by vase-pilasters and decorated with lotus vine on which rest birds with foliated tails. Also Kashmir-derived aediculae on the portal of Mirkulā Devī Temple at Udaipur (c. second half of 11th century; cf. Goetz 1955: Pl. XII) show comparable paired feathered *kinnara* and birds in the interstices. Indicative at Nako are the fish-tails of pairs of cows or oxen suggesting that this type of foliage tails can be associated with the foam of celestial waters, which are also typical of ceilings in Ajanta.²² Vajracharya (2003: 51) argues that these images of Ajanta are rain cloud images and an expression of the Indian concept that associated celestial water full of lotus and populated by aquatic and semi aquatic creatures, as described in astrological texts. According

to Vedic belief rain is the semen of the cloud animals capable of fertilizing the earth.²³ Also at Tabo, aquatic creatures are a dominant feature represented on the ceiling of the painted wooden gateway leading from the assembly hall to the sanctum: there intricate friezes featuring tortoise, *makara*, birds, etc. resting on flowers of lotus creepers – represent the rhizomes which emerge from the cosmic lake (fig. 146).²⁴ Hertha Krick (1982: 155) defined the lotus' symbolism: „Sein Ursprung aus dem Wasser macht den Lotos zur Lebenspflanze par excellence; er ist Träger der vegetativen Fruchtbarkeit und das Symbol für die räumliche und zeitliche Entfaltung des Kosmos“ (trans. “Its origin from water makes the lotus the plant of life par excellence; it is the bearer of vegetative fertility and the symbol for the spatial and chronological development of the cosmos.”). This sumptuous intricate ornament clearly mimics wooden portals (*torana*) which are a leitmotif in religious architecture in the Himalayan regions of Kinnaur (Ribba) as well as Lahul and Chambā.²⁵ Their exuberant doorways—marking and protecting the border between the mundane world and the sacred chamber in which the main deity is enshrined—provided the forerunners for monumental portals in Western Tibet: one of the earliest examples can be found in the Chenmo Lhakhang at Khorchag (founded 996 by Khorre, the king of Purang) (cf. fig. 155); motifs on the latter are important for various parallels with ceiling paintings as will be shown.

Another mythic animal depicted at Nako and omnipresent in Indian medieval temple art is *makara* (fig. 152)—the water-creature and vehicle of the River Goddess Gangā—with leonine legs and curled trunk, inspired by the crocodile, which is regarded as treasure of Kubera, the

22 The subterranean water spirits or *nāga* are often depicted in later temple's ceilings at Tabo, demonstrating that it is expected that their power also include flying.

23 This interest in water symbolism also might not surprise in an area of one of the four great rivers which have their sources in the holy mountain Kailash in the Tibetan highlands. The Sutlej is called in Tibetan *lang chen bzang po* (*kha 'bab*), the meaning is “water that spouts from the mouth of an elephant” the other three are associated with lion, peacock and horse (Tsering Gyalbo, verbal communication 2008).

24 Water creatures and *kinnara* are also depicted in the sphere outside the mandala in the Translator's Temple, representing the lower realm in which a being can be reborn.

25 The structure and overall programmatic design of these portals can ultimately be traced back to the Gupta and post-Gupta art of India.

God of Wealth (Zin 2003: 77). *Makara* are often depicted protecting and sacralising the *torāṇa* of temples and they are also found on the wooden ceiling of the Mirkulā Devī Temple, Lahul (HP, c. 11th century) (Papa-Kalantari 2007b: 175 and fig. 18; Goetz 1955: Pl. XIII).²⁶

Most of these mythic creatures on the ceiling of Nako can be interpreted as “plenty-giving” celestial spirits associated with water as source of life and fertility. They may also allude to Buddhist cosmological concepts: *makara* represent the un-manifested state of the cosmos (Gutschow 2011, Vol. I: 205) and—like *kinnara* (bird-humans), who reputedly have their abode to the north of the Himalayas—they belong to the entourage of Kubera, the heavenly king of the north from Indian mythology. All this recalls the description of the cosmos by the Buddha in Sāhasra Cosmology in *Mahāyāna*-Buddhism with its division of heavens, mighty oceans and the four great rulers (Kloetzli 1989: 53).²⁷

Many of these mythic creatures are also shown in the animal *torāṇa* of the Buddha sculptures at Nako in terms of expressing his power and majesty (see fig. 63). In particular animals and hybrid creatures such as *kinnara* and *makara* (figs 152 and 153) are vested with otherworldly power which is also underlined by their dynamic movement. Exemplary is *śarabha*²⁸, the elephant headed lion – denoting the foremost of all animals (the solar animal, cf. Kramrisch 1976: 331) which is believed to be strong enough to be a match even for lions and elephants (fig. 152). His omnipotence is not only emphasised by his eight feet but also by the rampant position of his legs which point on different sides of the squarish spaces allotted to them, thus not only oriented towards one dimension of space. Mythical animals which adorn gateways or lintels of temples or shape the space of deities in *torāṇas* were also depicted on the ceiling, where they are sacralising the inner space of the temple. *śarabha* are frequently part of *torāṇa*-decoration in later Tibetan art, then, usually denominated “six-ornament archway” behind the enlightenment throne of a Buddha and including inter alia *garuḍa*, *nāga*, *makara*, lions, etc. *śarabha*, in form of an eight-legged deer, can also be found in the *Jātaka* tales relating to a Buddha’s previous life.

Peacocks are prominently represented, not only on the ceilings of Nako (fig. 152), but also on various positions at Tabo and Alchi. In general the peacock is associated in India with the protection from dangers such as snake bites from very early on (Zin 2003: 325) and it serves as *vahāna* (vehicle) of Mahāmāyūrī, a goddess of diseases who has power to protect from poisoning. This is in line with their depictions at Tabo, where they form a row between ceiling and textile festoons; protecting the devotee who is passing under them when circumambulation and they are also represented on the Tabo ceiling (on portal leading to cella). Peacock-feathers form the umbrella of the powerful local protectress Dorje Chenmo (or Remati/ Palden Lhamo) depicted above the portal of a cave temple at Dung dkar and Alchi. The umbrella signifies both the respect which appertains to her as well as the protective power of the goddess. Interestingly, peacocks also adorn the sumptuous robe of a female donor in the assembly of the Alchi Dukhang, perhaps not only alluding to worldly power and sovereignty but also to pureness and spotlessness of the pious female founder of the temple (Papa-Kalantari 2008).²⁹ A central idea

26 I am grateful to Rob Linrothe for discussions on this topic.

27 All this is reminiscent of the world of mythic creatures on the ceilings of Ajanta, cave I, II. Krishna Murthy (1985) was the first to classify them as aquatic creatures. For examples of such creatures frequently represented on architectonic ornament in Nepal adorning and guarded the niches of deities see Gutschow 2011: 248.

28 I wish to thank my colleague Gudrun Melzer (April 2013) for this identification.

29 I am grateful to Gudrun Melzer and Christian Jahoda for information and discussion this topic.

is the capacity of the bird to transform poison to sunlight (indicated by the colours of feathers); this agrees with the name of Amitābha Buddha (whose attribute is the peacock), translatable as “Infinite Light”. This is also in line with the interpretation of Remati’s bird’s feathers as symbols of her ability to transmute all poisons and negativities in resplendent wisdom (Beer 2003: 180). Portals and ceilings as zones of border and transition are ideal places for the representation of these ideas of salvation, and their representation may have served for Buddhist practice.

THE AUSPICIOUS STRING OR MĀLĀ: FROM THE TREASURES OF KUBERA TO SYMBOLS OF BUDDHIST FAITH

Images of specific auspicious objects are important but hitherto neglected themes in early Western Tibetan ceiling paintings. A constant motif is the lotus in different shapes: as large naturalistic full-blown flowers, as lotus vine (*padmalāta*), stylized rosettes integrated in surface patterns and combined with other objects in vertical strings or *mālās* (figs 155, 156). The lotus blossom carries a great variety of symbolic connotation in Indian art. The lotus is the support and attribute of deities³⁰ and it occupies a prominent position among the cosmic images as described by Kloetzli (1989: 40). In Hindu and Buddhist cosmology, the lotus flower arises and unfolds from the fabulous endless ocean of creation and represents the universe with the petals symbolizing the eight directions; accordingly, a lotus in the centre of a mandala indicates sky and heaven. As a metaphor of faith, especially in later Buddhism, the lotus often serves as a support for other emblems, like the conch, as found in Ajanta cave II. Conch shells emitting foliage are frequently found in early Western Tibetan ceiling designs of various periods, easily identifiable at Nako (fig. 157) on the basis of comparison with the Khorchag portal (fig. 155) and with that of Ribba (unfortunately, the ancient wooden portal of Nako is in a fragmentary state of conservation; but stands in the same tradition). Chonch-shell or sea snail-horn (*dung dkar*; sea snail, *turbinellapyrum*, which lives in the Indian Ocean)—as a fertility-bestowing vessel from the world of water—and lotus are described in the *Viṣṇudharmottarapurāṇa* as treasures, which emerge from them, and they are associated with Kubera (Zin 2003: 214). They were later integrated in the group of Eight Auspicious Symbols as shown by Wayman (1989). This set of symbols is prominently depicted on the ceilings above the Tabo sanctum; among them is also the sacred conch emerging from a lotus. Related to the themes of the fertility of water and affluence is also the widely displayed motif of stylised auspicious inexhaustible vases (*kalaśa* or *pūrṇaghata*) filled with water and emitting flowers (Christian Luczanits, verbal communication 2009). In addition at Nako capitals show the painting of a *kalaśa* in the tradition of classical Indian temple’s architectural ornament (cf. fig. 154). These perhaps not only allude to the blessing of riches offered to the Buddha but also to symbols promoting the wealth of the devotee (fig. 157).

The combination of these objects creating strings or candelabra is a widely displayed theme on the ceilings and woodcarvings in this region of different periods³¹ (figs 155, 156, 157, 158); the Khorchag portal may have served as a possible prototype³². As a ceiling orna-

30 The blossom opening with the rising sun and closing at night is related to the cycle of life and death and thus became an attribute of the sun god.

31 This also reflects the traditional workshop organization in wooden temples, where artists responsible for woodcarvings of portals may have also executed the wooden ceilings and their decorations, leading to a tradition of overlapping symbolism of these genres.

32 A stylized variation of a vase-cum-lotus *mālā* can also be found at the portal of the Mirkulā Devi at Udaipur/ Lahul.



Fig. 156: Tabo, Assembly Hall, detail of ceiling planks.

ment it typically consists of parallel rows of stylized vases, lotus flowers and conch-shells/ snail-horn as if one of these elements grows out of the other. The theme of rows or strings of elements corresponds to a canonical script mentioning *mālās*—together with *padmalāta* (lotus rendered as vine or tendril)—as a concept of decoration which is considered by the Buddha as adequate for ornamentation in monasteries (Zin 2003: 66). A variation and later



Fig. 157: Upper Temple, detail of loose painted ceiling plank.

development of the Indic *mālā* is the lotus-stem or candelabra in the art of the Alchi School of temples to be found on ceilings and in woodcarvings³³ of the Alchi Sumtsek, but interestingly the naturalistic representation of the conch-vase-lotus-stem as central Buddhist symbolic object in this region is absent there³⁴.

With regard of the symbolism of the combination of vase and conch-shell in a *mālā* Coomaraswamy (1979: 77; cited after Francour 1998: 254–255) interprets the “lotus as the earth, the substance of things, and the conch as their form, or in other worlds, the lower as the ground of utterance and the upper as the power of utterance, the spoken word. He sees this symbol as a possible alternative formula equivalent to the sūtra supported by a lotus”. The Vedic god Indra together with Brahmā gave the Buddha the sea snail-horn after his enlightenment and encouraged him to announce his teaching; thereby the white auspicious snail-horn signifies also his melodious voice (Lee-Kalisch 2006: 531). The popular theme of vases-cum-snail-horns is frequently found at Nako and Tabo (figs 156, 157), Zhag (Tsamda; on the zenith-strip of the entry hall’s ceiling) and Dung dkar (cf. fig. 158), and it is perhaps also present in a very decorative fashion on the Alchi ceilings, representing a different and chrono-

33 For images see cf. Pöll forthcoming, who was the first to direct the attention on this type of ornament in the medium of woodcarvings.

34 This ornament can ultimately be traced back to the ancient Indian tradition of a lotus string (cf. Papa-Kalantari 2000: fig. 59), i.e. lotus flowers organized in a continuous band or stem as if one element grows out of the one below. At portals of the Alchi School leaves (growing out of nodes of the vertical stem), rosettes and paired birds resting between the leaves alternate (and perhaps also snail-shells in a very reduced form); a theme which is also found on ceilings of Alchi and Sumda as a device to organize surface patterns inhabited by different mythic animals (*ibid.*: figs 55, 58). This Indic artistic trend is also visible on the woodcarvings of the veranda of the Sumtsek, combining Indianising floral and animal symbolism (lotus vine on pilasters growing out of *pūrṇaghāṭa*) with architectonic structures known from Kashmir. In contrast to the strong symbolic character of objects at Khorchag, Tabo and Nako, at Alchi rather a schematic, decorative character of the lotus stem dominates, characteristic for a later stage of a development of an ornamental theme. In this phase the reciprocal exchange of different media, including contemporaneous luxury textiles from the Islamic sphere is in particular strong.

logically later Kashmir-style derived school compared as to Nako.³⁵ The Indic theme of naturalistic vases, conches/snails and lotus rosettes as well as various animals and lotus tendrils associated with water symbolism are commonly found in wood carvings on the magnificent early wooden portals of this region, such as at Khorchag (fig. 155), alluding to worldly affluence and fertility integrated into symbols of Buddhist faith. It is significant to note that motifs derived from intricate carvings of Indian wooden as well as stone temples and their symbolism were not only models for wooden portals in Western Tibet, they were also transferred into the medium of painting such as the temples' ceilings. This demonstrates that ornament in Western Tibet draws from a common treasure of older Indic decorative motifs and symbols. Moreover ornament on ceilings and portals and their position in the overall layout, such as at Khorchag appear to have shared functions. Indicative in this context is that at Khorchag Eight Auspicious Symbols (*aṣṭamaṅgala*) are integrated into the vertical strings, or *mālā* of vases, lotus and conches. Wayman (1989: 242) remarked that this set of auspicious symbols is often referred to as decorating tops of architraves, umbrellas or mandala palaces, and suggest a heavenly association; this is in line with their representation on the ceiling's corners above the sanctum at Tabo.

Another frequent motif at Nako recalls architectonic ornaments such as mouldings of *gavākṣa* (small windows, or "cow-eyes", fig. 144, middle section), often found as decorative friezes on beams and wooden doorways (Mirkulā Devī, Lahul; Goetz 1955: Pl. XI); at Nako they are organised as successive rows hung with pearl-strings perhaps alluding to the doors of deities: *gavākṣa* also typically cover the *śikhara* of Nagāra-type temples, such as Masrur, representing Mount Meru.

All this suggests that these elements of a divine menagerie and auspicious symbols on the Nako ceilings are not isolated, exotic or purely decorative details, but appear to have been adapted and transformed in Western Tibetan temples in terms of the temple being symbolic of the cosmic structures and thus pertinent to salvation. In this context Randy Kloetzli's observation concerning early Buddhist sources representing the universe as the *cakravāla* is relevant: the single circular world system is represented by a disk with seven circular golden mountains ranges, with Mount Meru at the centre. Between these mountains water flows, and the seventh mountain range is surrounded by a large ocean. In this ocean four islands are placed with Jampudvīpa, where the Bodhisattava sits in order to become an Arhat and Buddha, placed in the south. The entire universe is illuminated by the moon, the sun and the stars, all revolving around Meru. In its vertical dimension three realms are distinguished in the Realm of Desire, *kāmadhātu*, of the Gods of Desire the lowest class is represented by the Four Great Kings while in the terraces on the way up Mount Meru various gods reside. It was this kind of cosmological speculation and tripartite vertical division of universe that must have been well-established and appears to be reflected in the ceilings as well as on wall paintings. Despite the absence of a clear diagrammatic, centralized ceiling programme shown at Nako today, which is found at Tabo and later temples such as Zhag cave (Guge, Tsamda area, c. end of 12th century) and Dung dkar, the employment of specific visual elements from the world of *yakṣa*, celestial animals, sacred lotus and auspicious objects such as vases and conch-shells

35 On the Sumtsek's ceiling in addition to strings of symbolic motifs also rather abstract lotus candelabra dominate, flanked by mythic creatures, which is a typical motif also in Central Asian luxury textiles (Cf. Goepper and Poncar 1996: 238). *Mālā* of lotus-flowers are also found in the medium of woodcarvings on the portal of this temple (*ibid.*: fig. on p. 27).

alluding to riches of Kubera suggests a tentative interpretation of ceilings as allusions to a cosmic vision. Many of the mythic animals and auspicious symbols are also depicted in the outer or lower realms of the geometric mandala depiction adorning a side-wall in the Translator's Temple (figs 16, 64 and 65).

In Buddhist cosmology the vertical arrangement of worlds is elementary, with a series of heavens, and divine order of gods who reside in them, which are interpreted in terms of progress of the adept as he pursues the path of liberation (Kloetzli 1989: 23). As will be shown in the last part, the upper boundary of the temple is a suitable place to represent such a meditational guide to salvation which evolves in dimensions of space and vertical arrangements of ethicised worlds. This is in line with the development towards strict diagrammatic, centralized ceiling ornament in later periods (see also Ramble 2013 who discusses Tibetan vertical ordering of the world and the wider cosmos).

The omnipresent depiction of sacred geese (*hamsa*) in dwellings and holy places in India is exemplary. They are often found on the uppermost border of the temple in the Western Himalayas. *Hamsa* (since Vedic times associated with the sun) are also associated with the "supreme spirit" and symbolise the escape from the cycle of life, the samsara (*samsāra*) (cf. also Vogel 1962). Its migratory nature is a perfect metaphor for this notion, and its depiction on pillars, uppermost sections of walls and entrances appears not to be arbitrary. Its nature as a creature of transition, transgressing borders, can symbolically be interpreted as transmitting from the profane to the sacred, leading to the nirvana (*nirvāṇa*). The transition zone from wall to ceiling and in portals of mandala in wall paintings is a suitable place for the representation of this concept. With the geese' holy nature and symbolism it was also a perfect animal for sacralising the throne of the Buddha.

ORNAMENT AT TABO: MAPPING THE SPIRITUAL PROGRESSION

The complex genesis of ceiling depictions in this region shows that ornament on ceilings played an important role in shaping and hierarchising different parts of the sacred space in the temple. The Tabo Main Temple (*gTsug lag khang*) (c. mid-11th century) is significant in this respect, as it represents one of the earliest examples in this historic phase from the 10th to 13th century with a complete ceiling programme still intact. The commonalities and differences in the ceiling designs of Tabo and Nako illustrate the various functions of ornament in the symbolism of sacred space and their transformation in the evolutionary history between the 10th and 13th century.

Tabo—representing a rather "conservative" tri-partite spatial layout (and forms of devotion) of the late 10th century with a horizontal hierarchy leading to the sanctum—shows a clear graduation in terms of complexity of motifs on the ceilings, featuring ornamental designs above the assembly hall with small-scale patterns without figural motifs, while in contrast paintings above the sanctum feature complex designs with cosmological allusions. Along the processional axis to the shrine-chamber a progression in elaboration and scale of motifs and in particular of the lotus rosette (*padma, padmaśīlā*) is observable (figs 146, 149).³⁶

36 In their function of hierarchisation of space ornamental depictions are thus part of architectural and iconographic language, they connect, or weave together architectonic structures within a temple. These architectonic-spatial traditions of early temples in Spiti and Kinnaur are partly derived from the magnificent tradition of wooden temples in India and, in particular, in Himachal Pradesh, featuring horizontally organised spaces with a shrine-like chamber for perambulation at the rear end (*vihara*-

Above the sanctum depictions of airborne spirits and musicians of Indra's heaven as adorers hovering in cloud-like medallions above the sanctum alternate with large naturalistically rendered lotus rosettes – symbol of this universe in which divinity is established (Kramrisch 1976: 314). These images are reminiscent of ceilings in early wooden temples in Lahul/ HP as already stated. In addition, auspicious symbols shown in the corners recall offerings in early mandala depictions, which together with heavenly spirits provide this part of the temple with a vertical dimension of ascent and thereby open the temple up towards heavens; the vertical orientation is also emphasized by the higher interior space in this part of the temple.³⁷ The motifs above the sanctum also indicate how this space was ritually conceived: offering goddesses shower riches on the dwelling place of the Buddha.

In contrast, this horizontal division of entry hall, shrine and assembly hall as found at Tabo is conflated in later temples such as at Nako, with a shift from longitudinal to centralised spaces, but the function of ornament elevating the zone above the main cult image appears to have been continued.³⁸ A gradual transformation in terms of visualisation of heavenly realms and cosmological dimensions can be observed, as can be best studied at Dung dkar, c. 1200 in the following part.

TOWARDS A COSMOLOGICAL VIEW

The importance of cosmological speculations in Western Tibetan temples is not only documented in the heavenly allusions on ceilings but also in a representation of a cosmological image on the entrance wall of the entry hall of Tabo. As outlined by Wong (2008: 51), cosmology transforms the chaos of our experimental world through the structures of space and time.³⁹ The cosmological image at Tabo which evolves around Mount Meru with Trāyastriṃśa on the summit, the abode of Indra, as a vertical axis represents “the stratified universe providing a field within which a being travels in stages on the long journey toward salvation in a vertical/temporal dimension” (Wong 2008: 56). In addition, on the Tabo entrance wall a wheel of rebirths is depicted representing salvation in cyclical cosmic time.

In contrast to Tabo, where a spiritual progression can be perceived while advancing towards the sanctum along a vertical succession of spaces, Western Tibetan temples from the 12th century onwards, such as at Dung dkar, show new spatial forms, featuring single-spaced

cum- *garbha grha* structures). For the description of the function of lotus designs on ceiling demarcating a processional axis to the sanctum in Hindu temples, see Flood 2009: 177.

37 In addition, on the constructive members in the passage to the sanctum in the *gTsug lag khang* of Tabo are specific ornaments *only* found in this area. Ornament on this transition zone between assembly hall and sanctum features the most elaborate detailed motifs in the temple consisting of large lotus rosettes, airborne offering spirits in pearl medallions framed by characteristic lotus vine friezes (*padmalatā*). They appear to be derived from the media of carved architectural ornament, and they recall magnificent *torāṇa* (portal) translated into the medium of painting, thereby providing a gate for perambulating the shrine and spiritually elevating and sacralising the sanctum. A graduation of scale of motifs and complexity of ornament can also be found in the cave temple of Zhag (Guge, Tsamda area), c. end of 12th century (Gyalpo and Kalantari forthcoming).

38 This can also be assumed when looking at the later depictions above the main niches in the Alchi Sumtsek (Papa-Kalantari 2002: 108). However it must remain speculation if this was the case also at Nako unless new archival material on Nako's ceilings prior to modifications and re-arrangements of the planks in 2001 can be brought to light.

39 The metaphysical interpretation of the perfect movement of the planets and the starry heavens is the basis for measurements of time and doctrines of creation (Kloetzli 1989: 17).

Fig. 158: Dung dkar (Tsamda, TAR, China),
details of lantern ceiling in cave temple.



Fig. 159: Dung dkar (Tsamda, TAR, China),
details of lantern ceiling in cave temple.



temples without a niche as focus of worship—taking into account that the latter appears to have a different function as private meditation chapels. Nako obtains an intermediary position in the process of “mandalisation” of spatial orders and religious programmes. Significant is the depiction of a complete mandala carved into the ceiling of one of these spaces at Dung dkar represented as three-dimensional palatial structures thus indicating that cosmologies achieve spatial realism in this artistic phase which contribute to the perception of the temple as cosmic order. In another cave of this site (fig. 158) rows of stupas are depicted in the innermost section, of the ceiling composition, representing the highest realm of the *dharmakāya*, the mind of the Buddha, while cosmological motifs and celestial animals, textiles and orna-

ments are depicted in the outer rings or sections, opening the ceiling to heaven⁴⁰ (cf. figs 158, 159).⁴¹

Comparable ceiling programmes can be found in cave temples in Central Asia along the Silk Road such as Dunhuang, datable into a period when Tibetans dominated the eastern Silk Road sites (Papa-Kalantari 2000, 2007b; Klimburg-Salter 2001). From very early on, the ceilings' depictions at this site, such as cave 249 and 285 (c. 6th century) show configurations of the heavenly realm around Mount Meru inhabited by nature spirits like wind gods, dynamic thunder gods of Chinese origin and Buddhist airborne creatures such as apsara (*apsarā*) and *kinnara* (Wong 2008: 57; see also for images Zhu 2003: fig. 23). Characteristic of Dunhuang are the combination of centralised ceiling plans featuring 3-dimensional architectonic structures carved into the ceiling which mimic pagoda- or lantern-style roofs decorated with luxury textiles, or illusionist depictions of honorific textiles such as canopies.⁴² In these ceiling compositions are shown cosmological and astral symbols and allusions to the heavenly realm associated with celestial animals in dynamic motion; (Papa-Kalantari 2000, 2007b: fig. 30, 2008: figs 143 ff.; cf. Neumann 2007: fig. 3).⁴³

At Dung dkar ceiling designs which feature the menagerie of Indian heavenly creatures—inheriting motifs of earlier periods as shown at Nako—are commingled with Chinese cosmo-



Fig. 160: Niwang (Tsamda, Ngari), Nyi dbang phug cave temple.

40 This type of cave temple at Dung dkar mimics lantern ceilings of stone or wooden temples featuring a row of stupas—representing the *dharmakāya*—in the central section. See for an analysis of selected motifs also Neumann 2007.

41 Relevant tantras in the *Kṛiyāsamgraha*, a 12th-century compendium of Buddhist rituals, specify the adornments the mandala palace; therein portals (*caturdvāra*) and tympanums (*torāṇa*) are decorated with silk strips, garlands, girdles and studded with vajra jewels (Skorupski 2002: 105). Adorning the mandala palace must thus be considered as one of the functions and meanings of textile depictions in these later phases.

42 See for images: Kalantari and Gyalpo 2011: figs 38–40.

43 Perhaps Chinese Central Asian luxury textiles from the Tangut Western Xia or Liao (10th century) period, featuring such imagery, among the transportable media, may have triggered the popularity and mobility of such themes (see for example Watt and Wardwell 1997: 144; Papa-Kalantari 2008: figs 146 ff.). See Gyalpo 2006 (image section) for further examples of ceilings opening to domes of heaven.

logical concepts⁴⁴; among these are dynamic animal whorls of deer, geese, etc., which encircle sun and moon reflecting the idea of the dynamics of starry heavens and the perfect motion of the planets (figs 158, 159). These motifs recall descriptions in Cakravāla Cosmology featuring wheels of the fixed stars “which turn about Meru as in a whirlpool” (Kloetzli 1989: 26); their perfect circular motion was regarded as divine law related to the wheel of the law, the teaching (*ibid.*: 72). Tsering Gyalbo documented a hitherto unpublished early *Nyi dbang phug* Cave Temple in WT which perfectly represents the Buddhist vertical ordering of the world and cosmos (fig. 160).⁴⁵ When circumambulating the temple the devotee, whose eyes dwell on the images on the ceiling, can wander in the trek with heavenly creatures, apsara and wild beasts through these heavens in his request to reach “ultimate truth” represented in the centre.

In summary it may be stated that the ceiling paintings of Nako, despite their undeniably overt ornamental character with patterns borrowed from textiles filling the rectangles of the beamed ceiling, on the level of motifs many symbols suggest a vision of a cosmological nature. They partake in the entire decorative programme of the paintings in the temple that might be considered as a meditational guide for the worshipper as he pursues the path to salvation with the ultimate goal of achieving final extinction of nirvana.

ORNAMENTAL STYLES AND ARTISTIC SCHOOLS IN WESTERN TIBET

Concerning the artistic context of styles in Western Tibet and derivation of motifs, Eva Allinger (Allinger and Luczanits forthcoming) differentiated a “hard, graphic style” and rather schematic figural types found in the Kashmiri-inspired idiom of Tholing, Tabo and Alchi, as different from a “painterly style” characterising the paintings of Nako and illuminations in the *Prajñāpāramitā*-manuscript at Poo, also characteristic for the interest in textile depictions. The latter can perhaps be deduced from variations of the Kashmir-style as practiced in the regions at the edges/periphery of the political domain of kingdom of Kashmir in Kinnaur (Ribba), Lahul and Chambā⁴⁶. While at Tholing the Kashmiri idiom perhaps reflects direct interactions with artists from Kashmir, the Nako-style integrated new Indic sources of a later phase of artistic interaction with Himachal Pradesh. No paintings survived there but metal images (cf. early bronzes in Chattrārhi, śakti Devī Temple (cf. Postel et al. 1985: figs 45–48; 93); Kalantari forthcoming [a]) show a soft modelling which imbues the figures with luscious sensual qualities, giving the onlooker a feeling for their corporeality; comparable features can also be found in the Nako wall paintings. The art of Nako not only differs in terms of the execution of figural paintings but also with regard to the motifs with their rich repertoire of Indic divine menagerie and ornament. Hindu and Buddhist temple’s woodcarvings in Himachal Pradesh show great interest in exuberant animal depictions and lotus ornament translating the rich heritage of post-Gupta Nāgara-style temple architecture. This tradition contrasts to

44 Characteristic of later temples are in particular three interconnected circling hares alluding to a previous birth of the Buddha and moon-symbolism.

45 Other motifs at Dung dkar may have developed independently of a meaning displaying a sense of playfulness, joy and even humour, which is another aspect of the quality of painting in this artistic period: among the most astonishing elements are humans sharing parts of the body (cf. Neumann 2007: fig. 23). This feature perhaps also alludes to the “illusion of perception” which is a popular theme in India, such as in Ajanta.

46 Not only the geographic proximity suggests such an interaction but also the fact that a tradition of Buddhism was established there at least from the 9th century onwards.

the primary themes of architectural ornament in Kashmir.⁴⁷ The latter emphasizes the structural values of architecture, descendent from late antique and Gandhāra tradition and ornament is subordinated to it. Ceiling patterns at Tabo show rather hard graphic forms and there clear geometric patterns dominate, reflecting stronger early interactions with artists trained in Kashmir. Comparable artistic exchanges can be found in the woodcarvings of the facade of Mirkulā Devī Temple at Udaipur (Goetz 1955: Pl. XII), featuring aedicules derived from forms found at Pandrethan and on the Avantisvamin Temple combined with Indic ornamental values such as densely filled overall textures.⁴⁸

This Indo-Kashmiri architectural ornament contrasts to Nāgara shrine forms (e.g. Bajeśvari Temple, Chambā) and its ornamental decoration.⁴⁹ Nāgara traditions in North India show densely relieved surfaces covering the temple like a fabric. The single motifs at Masrur (Postel et al. 1985: fig. 33) display luscious, sensuous vegetative forms, meandering lotus vine and interest in nature; in particular it features hybrid motifs combining floral and figural elements, which is characteristic of ornament at Nako as well. However, the latter is in stylistic terms more static and planar. The art of Nako thus perhaps reflects new interactions with North India with its rich ornamental repertoire⁵⁰.

To summarise, ornamental and figural motifs on the Nako ceilings represent a complex historical palimpsest; they stand in the long history of religious symbolism of mythic animals, auspicious objects and sacred plants associated with Buddhist faith in India and they can be deduced from the rich heritage of North Indian Hindu and Buddhist temple architecture. The ornamental tradition of Nako can tentatively be regarded as an aftermath of stone and wooden architecture in North India, superimposed upon layers of Kashmir-style art. In particular exuberant ornament on woodcarvings from earlier Himalayan wooden temples such as elements of complex portals, ceilings and pillars were important mediators and they were translated into the traditional Western Tibetan building forms and its decoration. These vivid, playful motifs have been adapted in this early phase at Nako in a very naturalistic and autonomous fashion, perhaps still bearing their old symbolic significance, while in later phases such as at Alchi they appear rather stereotype—integrated into repetitive decorative patterns or transformed into Chinese-style astral symbols (see below). These Indic floral and figural

47 I have argued elsewhere (3rd International Seechac Conference, Vienna) that Nako which combines characteristics of the Kashmir-style with values found in 9th–10th century sculpture and woodcarvings in Himachal Pradesh (Lahul, Chambā and Kinnaur).

48 Typical are pent-roof structures and lobed arches filled with animals in the interstices. Manuscripts in Rome (IsIAO, 1329, featuring a frontispiece which was compared by Amy Heller in terms of figural style with Tabo on occasion of the 2013 Seechac Conference in Vienna) and a folio in the Cleveland Museum of Art (2000.67) from Western Tibet are descendants from this style and they may have been mediators for the art of Tabo, where similar forms can be found in depiction of heavenly palace of the Buddha above the portal: characteristic are multilobed, dynamic arches, behind which are elements of a roof-structure showing elements of local culture full of decorative details and interest in textile motifs.

49 For example the Bajeśvari Temple (Chambā) represents an architectonic tradition which is rather conceived as sculpture: the vertical *śikhara* (curvilinear tower) is covered with multiple shrines or windows as abodes of deities on Mount Meru. The richly adorned aedicules consist of shrines topped by pavilions or towers and crowned by *āmalaka*.

50 Trade contacts between regions of the southern slopes of the Himalayas and Western Tibet including Ladakh (such as tea and wool by means of pack sheep and goats which exist up to the present day) may have triggered this artistic-religious exchange. It is also possible that the commodities included woodcarvings and elements of pre-fabricated decorated portals which may explain the transfer and adoption of ornamental themes from North India in early Western Tibetan art.

motifs at Nako contrast to the post-Gandhāra architectural ornament in Kashmir, where rather elements derived from constructive architectonic elements prevail with occasional figural and ornamental motifs filling the plain parts and interstices; there also complex decorated portals representing ideas of the mandala are absent⁵¹.

ESTABLISHING A TRADITION

Textile depictions, ornaments and elements of the material culture in donor depictions and narrative imagery play a central role in the creation and consolidation of a distinctive visual identity. Thereby the aspect of variation of ornamental themes, allowing space for individuality, virtuosity and inventiveness plays a specific role (comparable to music or poetry such as the verses of the *Shāhnāmeḥ*, the “Book of Kings” (10th century) as remarked by Boris Marshak in a discussion on ornament in the Alchi Sumtsek with the author⁵²). This high artistic achievement is not only found in painting but also in architectural ornament⁵³ and woodcarvings on portals. Another significant feature of ornamental culture in this period is the longevity and conscious continuation and translation of themes and elements of local material culture. It appears that in many cases the fabrics and luxury items which originally served as models were not known from direct experience by the artists anymore but their motifs—consecrated and sanctified through tradition—were deliberately transformed and recharged with new meanings. A constant theme is overlapping circles, popular at Nako and also frequently found at Dung dkar in a very similar fashion.⁵⁴ Other motifs found at Nako significant of Indic architectural ornament such as vases, rather recall ornamental surface patterns at Dung dkar (figs 158, 159). The Indic mythic animal *makara*, adorning ceilings, and guarding thrones at Nako and Tabo is transformed in the later Dung dkar and *Nyi dbang phug* caves to the Chinese astral symbol of a dragon associated with the sun and the emblem of the emperor (Beer 2003: 7), while *hamsa* mutate to intertwined phoenixes circling in the lower section of the construction, recalling ceiling designs of Western Xia (11th–13th century). All this shows the artist’s capacity of a new look on indigenous and foreign traditions and to create individual solutions. Ornament is thus a paradigm case for questions of style in Western Tibet. Some motifs—such as the pearled lotus medallion—were even paraphrased in much later periods in the Nako temples from the 14th century such as in the White Temple (Karchung Lhakhang, *dKar chung lha khang*) when interactions with Newari traditions became dominant (fig. 161). The continuation of the use of motifs in the Western Tibetan temples in the region through various periods and with regional variations can thus be regarded as a deliberate strategy of legitimisation and continuation. This process of shaping a distinctive independent Western Tibetan art and identity was ultimately instigated by the Western Tibetan kings and their religious and aris-

51 On the other hand, the constant Kashmiri theme of replicas of shrines with massive pilasters supporting gabled roofs as thrones of deities can also be frequently found in Western Tibet namely in wooden portals and in wall paintings; a good example being the heavenly palaces of Bodhisattvas on the rear (main) wall of the Nako Upper Temple (fig. 82).

52 The *Shāhnāmeḥ* was composed in the 10th century CE by Iran’s national poet Ferdowsi at the court of Sultan Mahmud of Ghazni (Afghanistan).

53 I am grateful to Romi Khosla for discussions on this topic. A comparable sense of individuality and variation of architectural ornament as well as of the depicted figures—in particular related to robes of the deities—is characteristic of illuminations in the *Prajñāpāramitā*-manuscript at Poo.

54 This pattern can be often found in representations of textiles in Eastern India sculpture of the Pāla-period, from the 11th century (cf. Lee-Kalisch 2006: Cat. No. 32: 247).



Fig. 161: Nako, White Temple (?), Loose wooden plank featuring a lotus between auspicious symbols, c. 14th century.

tocratic allies. They established in the 10th century new religious ideals and transformed all spheres of social, political and religious life and the relevant artistic production in line with models of a centralized Buddhist kingdom. The religious-political systems of the following centuries in Western Tibet designed their artistic traditions upon these layers of the early period of royal Buddhist art in the region.

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2.5 Representing Prajñāpāramitā in the Temples of Nako

The Iconographic Concept

Petra Müller

INTRODUCTION

The Goddess of Wisdom Prajñāpāramitā (Tib. *Shes rab pha rol tu phyin ma*, also *Yum chen mo*, “Great Mother”) is the personification of the most important text of *Mahāyāna* Buddhism, the Prajñāpāramitā Sutra. Even though earlier depictions of the goddess exist, these early medieval images as visible in two of the Nako temples, the Lotsawa Lhakhang (*Lo tsa ba lha khang*) and the Lhakhang Gongma (*Lha khang gong ma*), are preserved within their original surroundings. These two images of Prajñāpāramitā still can be analysed within their architectural contexts; furthermore they are rare examples of existing remains of statues along with photographic documentation of scholarly visits depicting these statues. Nevertheless, very little research has been conducted on the topic so far. This article is part of an ongoing study and based on presentations and publications of the International Association for Tibetan Studies (IATS) Conference in Vancouver 2010, the European Association for South Asian Archaeology and Art (EASAA) Conference in Vienna 2009 and the MA Thesis from 2008.¹

These representations of Prajñāpāramitā will be studied mainly from an art historical viewpoint. A careful analysis of the images and a systematic comparative investigation of images and texts will furthermore enable a verification of the identification of these sculptures as Prajñāpāramitā and an iconographic classification. This article focuses on the configuration of Prajñāpāramitā and her retinue as visible in the monument of Nako (Himachal Pradesh, Indian Himalayas) that show Prajñāpāramitā within an iconographic content. The position of the images of Prajñāpāramitā in the overall iconographic programme will be analysed. Possible iconographic types and primary sources related to these depictions representing the iconographic content within Prajñāpāramitā are represented.

TEMPLES

The temples of Nako contain some of their ancient and original decoration. Moreover, some issues can be discussed in detail, even though now no longer extant, based on existing visual documentation taken by Francke in 1909 and Tucci in 1933 and the results of the analysis of the Institute of Conservation (IoC), University of Applied Arts 2004–2009 (headed by Gabriela Krist)². The monumental images depicting Prajñāpāramitā in both of the temples, the Lotsawa Lhakhang and the Lhakhang Gongma are of central importance. In both temples, the monumentality of the statues of Prajñāpāramitā, the power of their visual language and their iconography are unusual (figs 162–163).

Fig. 162: Prajñāpāramitā, Lhakhang Gongma.

1 Müller 2010, 2009, 2008.

2 Franke 1914: 32–33; Tucci and Chandra 1988: 167; Tucci and Ghersi 1934: 146; Tucci and Ghersi 1996: 71).



NAKO

In the Buddhist compound of Nako, two of the four temples (dated to different periods), the Lotsawa Lhakhang and the Lhakhang Gongma, still preserve paintings and sculptures from the period of their founding and largely dated to the late 11th or 12th century.³ Both temples display monumental images of female deities. Luczanits (2004: 84, 215) mentions that the identification of the goddesses as Prajñāpāramitā in both Nako temples is somewhat problematic but is very likely due to the colour, the *mudrā* in the Lotsawa Lhakhang and the depiction of the eight Buddhas surrounding the goddess in the Lhakhang Gongma.

Lhakhang Gongma

The crudely restored image of the goddess in the Lhakhang Gongma (which lies opposite the Lotsawa Lhakhang) was identified as a Prajñāpāramitā by Luczanits (2004: 84, 215), and furthermore as the central part of the Prajñāpāramitā Mandala (see figs 82 and 164). Today no original attribute exist; the right hand performs the argumentation gesture (*vitarkamudrā*), while the left hand rests on the knee of the figure in the gesture of giving (*varadamudrā*). The statue is shown seated in the mediation posture (*vajraparyāṅk-āsana*) on a lotus throne. In both temples Prajñāpāramitā is enclosed by a three-dimensional frame depicting a mythical animal throne and shown together with a set of Buddhas (fig. 82). A painting underneath the statue shows additional eight Bodhisattvas seated in their celestial palaces and a green, four-headed Tārā, identified by Allinger (2005: 355–361) as Tārā (protecting from) the Eight Dangers (Aṣṭamahābhaya Tārā).

The Lhakhang Gongma shows the already-familiar iconographic concept of representing Prajñāpāramitā surrounded by eight Buddhas—as referred to by Luczanits as “an unusual variant of the Prajñāpāramitā Mandala” (2004: 85). In this case the goddess seemingly becomes the centre of the mandala. Iconographic sources such as the *Nispannayogāvāli* (NSP) do not mention this specific configuration. Silk (1994: 29) refers to a commentary text (written by the master Darikapada), that describes the mandala of Prajñāpāramitā surrounded by the Buddhas of the Directions and its conception is said to date back as early as at the time of Padmasambhava.⁴ The *Dhāraṇīsamuccaya* No. 33, which was already developed in the 7th century (before 625, see Conze 1960: 14, 88), comprises the Prajñāpāramitāhṛdaya Sutra which is said to include the first description of the Prajñāpāramitā and of the Prajñāpāramitā Mandala.

According to Luczanits (2004: 216) this mandala is characteristic for the late 11th/12th century monuments of Tibetan Buddhism in general and therefore he refers to the temples of Nako and Kyangbu (*rKyang bu*).⁵ Very few textual sources that describe the Prajñāpāramitā Mandala have been documented and investigated so far.

3 Franke 1914¹: 32–33; Tucci and Ghersi 1934; Klimburg-Salter 2003; Luczanits 2003b; Müller 2008.

4 This commentary text is said to date back to the time of the great tantric master Padmasambhava (Guru Rinpoche or Tib. *Padma 'byung gnas*), who is said—following a legend—to have brought Buddhism already in the 8th century on his travel from Uddiyana (North Pakistan) to Tibet into the region of Himachal Pradesh (Klimburg-Salter 2003: 39). Therefore there could possibly be a relation of the older type I of the representation modes to images related to Uddiyana, but this is the task of further research.

5 Another site mentioned in this context by Luczanits is Lalung in Spiti, Himachal Pradesh, India (Luczanits 2004: 215–6).

Fig. 163: Nako, Lotsawa Lhakhang, view.



Fig. 164: Nako, Lhakhang Gongma,
Prajñāpāramitā, east wall.

Lotsawa Lhakhang

The clay sculpture (fig. 165) in the Lotsawa Lhakhang was first identified as Prajñāpāramitā by Tucci in 1934 (Tucci and Ghersi 1934: 146). August Hermann Francke (1914⁶: 32–33) identified the sculpture in 1914 as Vairocana (Tib. *rNam par snang mdzad*) or Ratnasambhava (Tib. *Rin chen 'byung ldan*). The earliest existing photograph dates back to the time when Francke visited the site 1909. Tucci corrected Francke in 1934 and identified the sculpture as Prajñāpāramitā. The two-armed goddess, originally golden in colour⁶, is depicted on the left side of the apse. Parts of the sculpture were destroyed in 1999 due to heavy rainfalls and a partial collapse of the ceiling. The clay sculpture was partly reconstructed by Jonathan Partridge in 2004–2006 (fig. 166).

The two-armed image is shown seated in *vajraparyanka āsana* on a lotus throne. The hands are shown in *dharmacakramudrā* (fig. 165). In the apse the Five Jinas with Vairocana in the centre are represented. Another sculpture on the right side of the apse is lost, only remains of wooden dowels, which possibly once attached this image to the wall, are still visible. Underneath the statue there are paintings showing four Buddhas and a depiction of a standing Tārā within an architectural frame, next to a donor inscription.

The Lotsawa Lhakhang Prajñāpāramitā shows a strong resemblance to the five clay Jinas installed in the apse of the temple. Beseler (2004: 16) mentions that all of the remaining sculptures in this temple, the Five Jinas and Prajñāpāramitā show similarities in their construction. Luczanits (1998, 2004) supposed that two of the Jinas in the apse, Amoghasiddhi (blue, original iconographic colour is green) and Akṣobhya (green, original iconographic colour is blue), were part of the original configuration, but were repainted in opposite colours during former reparation works. This was verified 2004 in the analysis of the original body colour of these statues carried out by the IoC, University of Applied Arts. According to the analysis the images are originally on their proper iconographic positions (Akṣobhya on the left and Amoghasiddhi on the right hand side) in the Vajradhātu Mandala.

In contrast to objects known from Bihar, the female goddess from Nako clearly shows a shift in the iconographic development of representing Prajñāpāramitā as a Buddha instead of depicting the goddess as a female Bodhisattva. This is clearly visible in endowing the clay sculpture with specific attributes of a Buddha (*buddhalakṣaṇas*) such as ringlets (*ūrṇā*) and outgrowth of head (*uṣṇīṣa*)⁷ (fig. 167). Both of these original features were detected during the restoration work of the IoC, University of Applied Arts in 2004 and 2005 (see Krist 2004 and Beseler 2004a). Furthermore, the original golden colour of the body and parts of the original clothing (fig. 168) were detected by IoC examinations. Prajñāpāramitā is also shown together with the four painted Buddhas, which refers to the same iconographic type mentioned earlier, showing Prajñāpāramitā as a Buddha framed by a similarly painted mandorla. The sculptures of the goddess and the Five Jinas are similar in style, size and position, and they are also made of the same material and follow the same construction model. The representation of the goddess in the Lotsawa Lhakhang therefore shows a different model than the depiction (of the

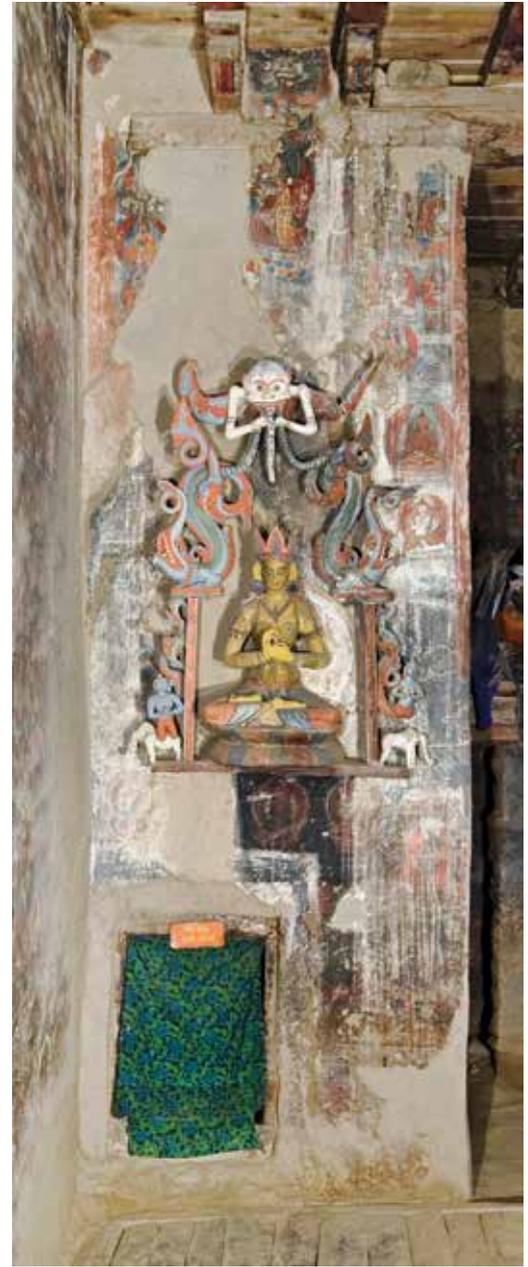
6 The original golden colour of the statue was found during conservation works conducted from the Nako Research and Preservation Project (NRPP, of which the author is a member) by the IoC, University of Applied Arts Vienna (headed by Gabriela Krist, conservation by Susanne Beseler, etc., see Müller 2008: 25–27) in 2004.

7 For a rare comparable image see a 21.6 cm high Kashmiri bronze (attributed to the 9th–11th century) located in the British Museum today (Auboyer and Béguin 1977: fig. 37). For further reference related to the different dating see Müller 2008: n. 257.



Fig. 165: Nako, Lotsawa Lhakhang, Prajñāpāramitā, west wall, before conservation

Fig. 166: Nako, Lotsawa Lhakhang, Prajñāpāramitā, west wall, after conservation



Goddess of Wisdom) in the Lhakhang Gongma, where she is surrounded by Buddhas and Bodhisattvas. In contrast the Lotsawa Lhakhang Prajñāpāramitā is related to the depiction of the Five Jinas and possibly to the Vajradhātu Mandala. Within the Vajradhātu Mandala, the Ten Pāramitā Goddesses representing different stages of enlightenment have an important place. Prajñāpāramitā is their uppermost deity shown on the 7th or 10th level.⁸ This form of depiction showing Prajñāpāramitā as part of the Vajradhātu Mandala (as visible in the apsis) and as enlightenment deity in the Dharmadhātu Mandala is also illustrated in the AsP-manuscript from

⁸ Therefore some other Prajñāpāramitā depictions in manuscripts seem to be related to this iconographic content (see for example the 11th century Cover Ms. Sansk.a.7 (R) of the Bodleian Library Oxford or the Nepalese Cover from the Alice Heeramaneck Collection M.72-1,19c-d).



Tholing (Los Angeles County Museum of Art). The eleven folios show the goddess in ritual adoration on the one hand and on the other hand together with the Ten Pāramitā Deities. Parts of the murals of the Dharmadhātu Mandala in the Lotsawa Lhakhang are the representation of the enlightenment stages and therefore the Pāramitā Deities with Prajñāpāramitā as their uppermost deity. De Mallmann (1986: 57) describes the *pāramitās* in the south east according to the Kāya Sutra or Mahāvairocana Sutra or Mahāvairocana Mandala. This (south eastern) position is also given to the Prajñāpāramitā in the Lotsawa Lhakhang of Nako.

Fig. 167: Nako, Lotsawa Lhakhang, Prajñāpāramitā, west wall, detail, after conservation.

Fig. 168: Nako, Lotsawa Lhakhang, Prajñāpāramitā, west wall, detail, after conservation.

Nako Temples, the Goddess and her Retinue

The main walls of both temples of the Sacred Compound show monumental images of Prajñāpāramitā. The original image from the Lhakhang Gongma probably must have been similar in size to the Prajñāpāramitā image of the Lotsawa Lhakhang, because the fragments of originally painted halos (about 90 cm in height) are of similar size in both of the temples. Both sculptures are surrounded by a three-dimensional sculpted clay architecture showing mythical animals representing the deity in her celestial palace (throne-architecture).

Both statues are related to other paintings visible on the same wall. Similarities of the iconographic configuration can be detected in both of the temples. The Lotsawa Lhakhang Prajñāpāramitā is linked to four Buddhas painted below the sculpture and is depicted above the mural of a somewhat smaller image of Green Tārā⁹ and related to a donor depiction. In the Lhakhang Gongma the goddess is depicted above the already mentioned Tārā (protecting from) the Eight Dangers and surrounded by Buddha images. In both temples ritual donations are painted in context to the donor depictions next to Tārā. These murals can be attributed

9 For these forms of representation see Conze 1949; Linrothe 1999: n. 194; Luczanits 2004: 216, n. 550; Allinger 2005; Goepper and Poncar 1996: 72, 159, 169, 171, 220; Papa-Kalantari 2007a: 194, n. 59; Müller 2008: 60–61.

to the original decoration of the temple due to stylistic features (Müller 2008). The description of the Prajñāpāramitā shown above Tārā (as seen in Nako) can be only found in context of the early tantric text *Mañjuśrīmūlakalpa* and is related to the creation of a mandala. In this text Śākyamuni is described as sitting on a lion throne teaching the dharma. He is surrounded by Pratyekabuddhas, his pupils, Avalokiteśvara, Mañjuśrī, Prajñāpāramitā above Tārā, Sixteen Bodhisattvas, Ten Pāramitās, Eight Uṣṇīṣas and other deities (Snellgrove 2002¹⁰: 193–194).¹⁰ Luczanits (1998; 2004: 88) mentions that this form of depiction showing these two goddesses together became a model for later representations in temples such as Lalung in Spiti.

These similarities of the iconographic configuration (Prajñāpāramitā related to Tārā, donor-depictions, the possibly similar original size of the images, three-dimensional mythical animal throne) refer to a related twofold depiction.

In the Lotsawa Lhakhang the image is formally integrated into the Vajradhātu Mandala. In the Lhakhang Gongma the sculpture is surrounded by Buddhas and therefore shown as part of the Prajñāpāramitā Mandala. The goddess is shown on the one hand in context of the Vajradhātu Mandala (Lotsawa Lhakhang) and on the other as part of the Prajñāpāramitā Mandala (Lhakhang Gongma). The representation related to the Vajradhātu Mandala derives from literature sources that refer to Prajñāpāramitā as secondary deity. In the case of the Prajñāpāramitā Mandala the goddess is shown as primary deity in the central position.

The murals on the south and north wall of the Lotsawa Lhakhang show the Dharmadhātu Mandala and the Pariśodhana Mandala.¹¹ The iconographic programme of this temple seems to follow the descriptions given in the *Mañjuśrīmūlakalpa*. Prajñāpāramitā is in this primary source described as situated to the left of the Bodhisattva Mañjuśrī (mural of Dharmadhātu Mandala, and is seen as an emanation of him.¹² The murals on the south and north wall of the Lhakhang Gongma have been identified as dedicated to Vairocana as Vajradhātu Mandala by Luczanits (2004: 84).

Iconographic Identification

Both images of the goddesses are shown in golden colour (see Beseler 2004a) apparently depicting the goddess as Kanaka Prajñāpāramitā, the golden form of the deity. The texts of the *Nispanṇayogāvāli* No. 21 and *Sāadhanamālā* No. 156¹³ describe Kanaka Prajñāpāramitā as a golden, four-armed image.¹⁴ This type is also visible in the temples of Shalu (*Zhva lu*) and Kyangbu (*rKyang bu*) (see Müller 2010). As these literary sources do not predate most of the sites discussed and Tibetan art often differs from the textual descriptions, a clear identification is difficult. A very early commentary text to the *Ninno* No. 34 describes a golden, two-armed Prajñāpāramitā. Conze (1960: 14, 88) refers to this text ascribed to the 8th century (c. 750) and

10 Another source for the description of the early tantric Prajñāpāramitā image is mentioned in context with the Garbhadhātu mandala (Conze 1960: 29–30, 89; Bhattacharyya 1978: 57). For the iconographic configuration of Nako and a possible relation to this mandala see Klimburg-Salter 1999: 316.

11 Luczanits 2003b: 49.

12 Lalou 1930: Pl. VII a, 64.

13 Bhattacharyya 1949: 65: „ ... prajñāpāramitā ... kanaka ... ” (Bhattacharyya 1978: 41).

14 See Bhattacharyya 1978: 41. It should be taken into consideration that Bhattacharyya (1978: 38, 40) critically remarks for the *Sāadhanamālā* No. 152 and *Sāadhanamālā* No. 158 (descriptions of the two armed Prajñāpāramitā with white or yellow body colour) that the colophon refers to them as *kanakav arṇāprajñāpāramitāsādhana*.

translated from Amoghavajra as including the first description of a tantric Prajñāpāramitā image (Müller 2008: 34). In this primary text Prajñāpāramitā is described golden in colour, depicted as a bejewelled image, seated on a white lotus holding the book in her left hand. The other hand performs the argumentation gesture (*vitarkamudrā*). This *mudrā* is also visible in the Lhakhang Gongma. Prajñāpāramitā performs this *mudrā* here with the right hand.

CONCLUSION

It can be determined that, based on the remains of the original traces in paintings and sculptures in both of the temples, together with the results of the analysis of the IoC, University of Applied Arts (for example: golden colour of the body, folding of cloths) and—referring iconographic texts and the iconographic configuration—the identification as Prajñāpāramitā in both of the Nako temples is most likely.

The similarities discussed such as the depiction of Prajñāpāramitā above another goddess Tārā and accompanying paintings support the thesis of a related iconographic concept showing Prajñāpāramitā on the one hand as secondary deity and part of the Vajradhātu Mandala in the Lotsawa Lhakhang and on the other hand as the main deity of the Prajñāpāramitā Mandala in the Lhakhang Gongma. This configuration is clear due to the description of this specific constellation and the position of this goddess in the *Mañjuśrīmūlakalpa* as well as the related position of the statue in the Lotsawa Lhakhang where the image is situated to the left of the Bodhisattva Mañjuśrī visible in the mural of the Dharmadhātu Mandala painted on the south wall. A connection to this primary source is evident. This comparison of existing textual sources and iconographic evidence refers to a depiction of the goddesses as possibly early tantric form. The statues seem to be a specific Tibetan representation of Prajñāpāramitā. Iconographically the configuration represents a related twofold depiction within the sacred architectural context.

The goddesses represent different aspects of Prajñāpāramitā and Stages of Enlightenment. These iconographic models seem to be specifically Tibetan in the iconography.

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2.6. The Life of Buddha Śākyamuni on the Wooden Portal of the Karchung Lhakhang of Nako

Verena Ziegler

In the sacred compound (*chos 'khor*) of Nako, on 3.550 m altitude in the region of Upper Kinnaur in today's North Indian district Himachal Pradesh, four Buddhist temples from around the 12th century are left. Today the smallest one, the so-called Karchung Lhakhang (*dKar chung lha khang*) or White Temple, is the only one where a carved wooden portal is left on its entrance wall in the east. Due to the extreme weather conditions of the region, the portal is already in bad condition, and the frieze on the lintel is the only part upon which figurative carving can still be identified. This paper will highlight this wooden portal of the Karchung Lhakhang and in particular the seven scenes depicting the Life of Buddha Śākyamuni on the lintel frieze.

“The most important themes in Indian Buddhist narrative art are the life (*avadāna*) and previous lives (*jātaka*) of Śākyamuni”, as Klimburg-Salter has stated (Klimburg-Salter 1995: 679–80). The pictorial narrative of Buddha's life developed in India in a context where the believers were familiar with Indian philosophical concepts and religious methods.¹ During the 10th and the 11th century, probably within the Second Diffusion of Buddhism (*phyi dar*) and following the demise of the Tibetan monarchy in Central Tibet (842 CE), Buddhism, Buddhist institutions and with them literary and artistic Buddhist culture flourished in the far Western Trans-Himalayan region in the kingdoms of Purang-Guge; thus the need for an independent Tibetan tradition on the Life of the Buddha emerged.² For lack of an entire canonical Indian life story of the Buddha, in the 11th century the Tibetans attempted to piece together a full biography from multiple textual sources, each containing only a segment of his life. The earliest fully-preserved example of this Tibetan composition is the summary of the Buddha's life in the “History of Buddhism” (*chos 'byung*) by Bu tön (Bu ston, 1290–1364 CE), for which is drawn largely from the *Mūlasarvāstivāda-Vinaya*³, the *Lalitavistara*⁴, and the *Abhiniṣkramaṇasūtra*. The Tibetan biographies on the Life of the Buddha are termed “The Twelve Acts of the Buddha” (*mdzad pa bcu gnis*), with each act consisting of several scenes. In Bu tön's account, one reads that these Twelve Acts of the Buddha tell his whole life story, from his Sojourn in the Tuṣita Heaven up to his Parinirvāṇa.⁵

Fig. 169: The wooden portal of the Karchung Lhakhang of Nako, Upper Kinnaur.

1 Klimburg-Salter 1995: 680, 1997: 35–36.

2 Klimburg-Salter 1995: 680, 1982b: 152.

3 The *Mūlasarvāstivāda-Vinaya* (*MSV*), the book of the order rules of the Mūlasarvāstivādin School of the northern tradition, is the only Indian canonical source containing the entire Life of the Buddha, although divided into two volumes. See Luczanits 1999: 38.

4 The *Lalitavistara* (*L*) is the youngest of the Sanskrit biographies, from around 8th century CE, and was originally part of the Dharmaguptaka School of the Sarvāstivādins. Over time it was revised several times and enlarged with later *Mahāyāna* elements. See Luczanits 1993: 19.

5 Klimburg-Salter 1982b: 166, 1995: 680; Luczanits 1993: 25–26, 1999: 38. For Bu tön's summary of his sources, see the translation by Obermiller: Bu tön 1931/32: 7–10.

Klimburg-Salter has already mentioned that in contrast to the older Indian tradition, where the groups consist of four or eight acts in which the dramatic climax of each act was presented, the Tibetan pictorial-narrative tradition seems to have been more fluid and detailed in its narration.⁶ In using different well-known Indian textual sources to gain a complete life story of the Buddha and by integrating their own cultural and local traditions, the donors and artists in Western Tibet created a self-sufficient linear and chronological way of representing the Life of the Buddha, fitted to the needs of a new Buddhist community in the Indian Himalayas.⁷ Connected to this development, the decoration of wooden temple portals with synoptic scenes from the life of the historical Buddha seem to have been quite common in the region of the Western Himalayas, as is seen by examples still *in situ*, e.g. the portal of the Dukhang (*du khang*) in Khojarnath, Tibet, the portal of the Dukhang (*du khang*) in Alchi, Ladakh, the one of the *bCu gcig sha l* in Wanla, Ladakh, the portal of the Lha Chuse in Kanji, Ladakh, or the destroyed but documented portal of the Serkhang (*gSer khang*) in Tholing, Western Tibet.

Most of the Buddhist temples in the Western Himalayas from the 10th to the 14th century contain or did contain woodcarvings as part of their decoration. The artistic quality varies from place to place and shows simple vegetative patterns on the one hand and complicated iconographic and narrative depictions on the other hand, as already noted by Luczanits (1999: 67). This kind of carved portal derives from the decorated portals of the Gupta period and the post-Gupta period, and this kind of portal in post-Gupta style was taken over in all of Himachal Pradesh and was not just used for Buddhist temples, as Klimburg-Salter has observed (2002: 9f.). Because of the Hindu and Buddhist examples of the region it can be seen that there must have been a strong woodcarving tradition in Himachal Pradesh.⁸ The wood mainly used for these works is the wood of the Deodar cedar (*Cedrus deodara*, *Pinus devadaru*, from the Sanskrit expression "*devadāru*", meaning "tree of the gods"), a very hard wood, highly stable against weather conditions and insects and very common in the Western Tibetan region as well as in Kinnaur itself.⁹

The Karchung Lhakhang today is dedicated, according to the resident population, to the protective deity Purgyal, on whose domicile, the peak of the mountain Reo Purgyal, one has a direct view of the temple's portal (fig. 169). The wooden portal is today the last one of its kind within the temple compound of Nako. The quite prominent looking entrance is c. 215 cm high and 185 cm wide.¹⁰ The lintel-frieze of the portal is made of a single piece of wood, and its decoration is divided into seven, clearly separated figurative scenes. The strong erosion merely allows a partial identification of the content depicted but no longer any proper stylistic analysis. The iconographic analysis must also be seen as an attempt, because nothing else remains of the former, probably outstanding, woodcarving of the entrance, and a single frieze of a portal in the Western Himalayas always has to be read in the common context of the whole portal and should not be analysed on its own. The Karchung Lhakhang and its wooden portal were already mentioned within the previous literature about Nako, but the narrative content

6 Klimburg-Salter is using the term "act" as in the acts of a drama, "since every act consists out of different scenes (...)". Klimburg-Salter 1988: 196, 208–209; Luczanits 1993: 25.

7 Klimburg-Salter 1988: 209.

8 Luczanits 1996: 74–75.

9 Noci 1994: 101; Aryan (1984/85: 70) describes the wood as "insect-proof" and stated that if it has kept properly it "(...) lasts for over one thousand years."

10 These measurements were taken by the author *in situ* in 2002.

of the lintel-frieze has hardly been discussed in detail yet (e.g. Francke 1972¹¹: 33¹¹; Tucci and Chandra 1988: 142¹²; Thakur 1996: 340–41¹³; di Mattia 1997: 194¹⁴; Ham and Stirn 1997: 143¹⁵; Klimburg-Salter 2002: 9, pl. 38¹⁶; Luczanits 2004: 76, fig. 71¹⁷; Luczanits 2007: 512¹⁸).

The portal of the Karchung Lhakang obviously consists of several parts that were carved separately and then put together. Above the portal a wooden beam c. 15 cm high can be seen which runs nearly to the corners of the temple. The purpose of this beam is to ensure the static stabilisation of the portal within the wall of the temple, but is not a part of the doorway itself.

The outermost parts of the portal are two half-pilasters, one at each side, that reach to the upper edge of it. On the upper half of the left pilaster four sections with partly intact figurative depictions can still be seen. When comparing these parts with still-preserved examples, such as the portal of the Dukhang of Alchi or the portal of the Dukhang of Khojarnath, one can assume that along both of these half-pilasters episodes from the Life of Buddha Śākyamuni might have been depicted, but which are lost today. Between the capitals of these two pilasters another horizontal frieze divided into eleven parts can be seen. Five segments show a seated Buddha figure, and we can assume that these five depict the Five Jina or Tathāgata. The central section of this frieze is double as long as the other four parts and shows a seated Buddha with two flanking figures. All the sections with the Buddhas are protruding and the central piece roofs the central section of the lintel frieze below in its whole length. The capitals of the two pilasters and the horizontal frieze are fashioned out of a single piece of wood, as are each of the pilasters. The next horizontal frieze is the lintel frieze already mentioned. Beside the two framing half-pilasters another pair of smaller half-pilasters can be seen; nothing of their decoration is left today. Between these two smaller pilasters another horizontal frieze consisting of seven sections is situated. Three of them are again protruding, and the central section has the same length as the central part of the lintel frieze above it. This frieze is from a single piece of wood, together with the capitals of the smaller pilasters and the upper part of a slim door-frame below it. Each of the smaller half-pilasters is made out of a single piece of wood, together with one vertical part of the slim door frame. Between them another horizon-

11 Francke (1972¹¹: 33) mentioned the White Temple in the south of the sacred compound and named it the *dKar byung lha khang* of Nako, without mentioning the portal.

12 Giuseppe Tucci (Tucci and Chandra 1988: 142) writes about the small temple of Nako without mentioning the portal and reports that according to the resident population the temple had been rebuilt recently. He further states that the temple is dedicated to Reo Purgyal and is also named after this deity.

13 Without mentioning the portal Thakur (1996: 360–41) states that the small temple is dedicated to Purgyal. He further mentions the small entrance of the temple that opens up to the east and is 83 cm broad. The measurement of 83 cm corresponds with the author's measurement of the small door of the temple, 83 cm broad and c. 148 cm high.

14 Di Mattia (1998: 194) just mentions the Karchung Lhakang and its dedication to Purgyal.

15 Ham and Stirn (1997: 143) write about the Karchung Lhakang without mentioning the portal and translate the name of the temple surprisingly with "Nuns-temple".

16 Klimburg-Salter (2002: 9, pl. 38) refers to about the portal in her article on the wooden portal of Ribba and gives a picture of it as a comparative example; in her article about the Nako compound she shows it again (Klimburg-Salter 2003: 43, fig. 8).

17 Luczanits (2004: 76, fig. 71) discusses the lintel frieze and mentions the depiction of scenes from the Life of the Buddha; he then describes the episode with the First Steps a bit more in detail.

18 In 2007 Luczanits returns to the portal again and roughly identifies the seven sections as: The Birth, the Simultaneous Birth, the First Bath, the First Steps, the Bodhisattva with his parents, the Visit of the Sage Asita and two scenes with tournaments (Luczanits 2007b: 512).

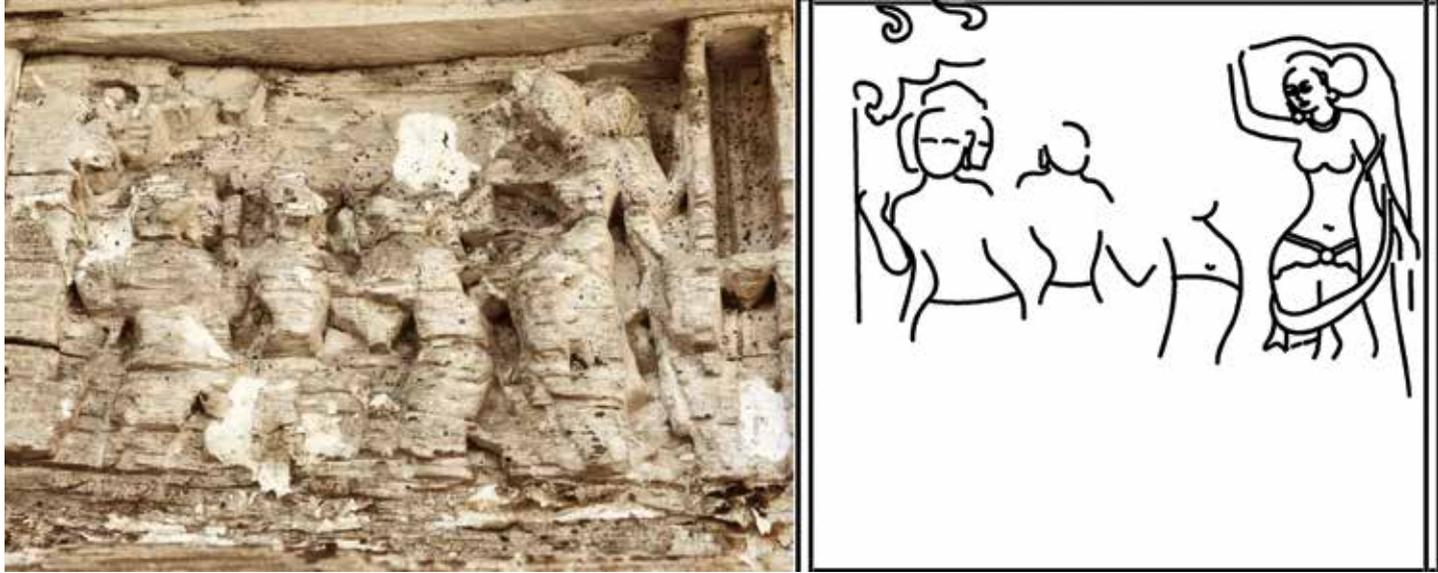


Fig. 170: The Birth of the Bodhisattva on the lintel fries.

tal frieze made of a single piece of wood is inserted. A third pair of half-pilasters, again each a single piece of wood, together with a side part of the midmost door frame, flank the small entrance door of the Karchung Lhakhang. Between them the lowermost horizontal frieze consisting out of seven sections can be seen. This frieze is made out of a single piece of wood together with the two midmost capitals and the horizontal upper part of the midmost door frame. In summary, it has been shown that the portal of the Karchung Lhakhang of Nako obviously consists of eleven individual parts that were put together after being carved separately.

The lintel frieze of the portal, 143 cm long and c. 18.3 cm high, is clearly subdivided in seven sections. Each of the sections is almost square-cut, with 18.3 cm height and c. 18.5 cm length, except for the leftmost and the rightmost part, which are longer with 20.5 cm length. All sections are divided from each other by a 2 cm broad, vertical notch.

The narration starts at the viewer's left side of the portal with the Birth of Buddha Śākyamuni and continues in more or less chronological order to the right (fig. 170). On the right frame of the first section Queen Māyā, the mother of Buddha Śākyamuni, is depicted slim and elegant with an opulent hairstyle. Her right arm is raised to the upper frame of the section where she probably grabbed the branch of a tree that is lost today. To her right side three other figures can be seen. The figure at the far left can be identified as male because of the slim waist and the broad chest, has a large head with three faces and depicts the Indian god Brahmā with his multiple faces and thus the second male figure must be god Indra or Śakra. The third figure, close to the queen seems to be female and maybe shows Māyā's sister and the Bodhisattva's foster mother Mahāprajāpatī Gautamī (*sKye dgu'i bdag mo*). Today there is a hole in the frieze between Māyā and the other three figures, and so we can only assume that originally there might have been the newborn Buddha shown leaving his mother's womb on her right side.

In art the Birth of Buddha Śākyamuni is always depicted in a very similar way. All known textual sources on his life, except the *Buddhacarita*¹⁹ where Māyā is lying on a bed while giv-

19 The *Buddhacarita* (BC) is a non-canonical text written by the poet Ashvaghosha probably during the 2nd century CE. This source starts with the Birth of the Buddha and ends with his Mahāparinirvāṇa.

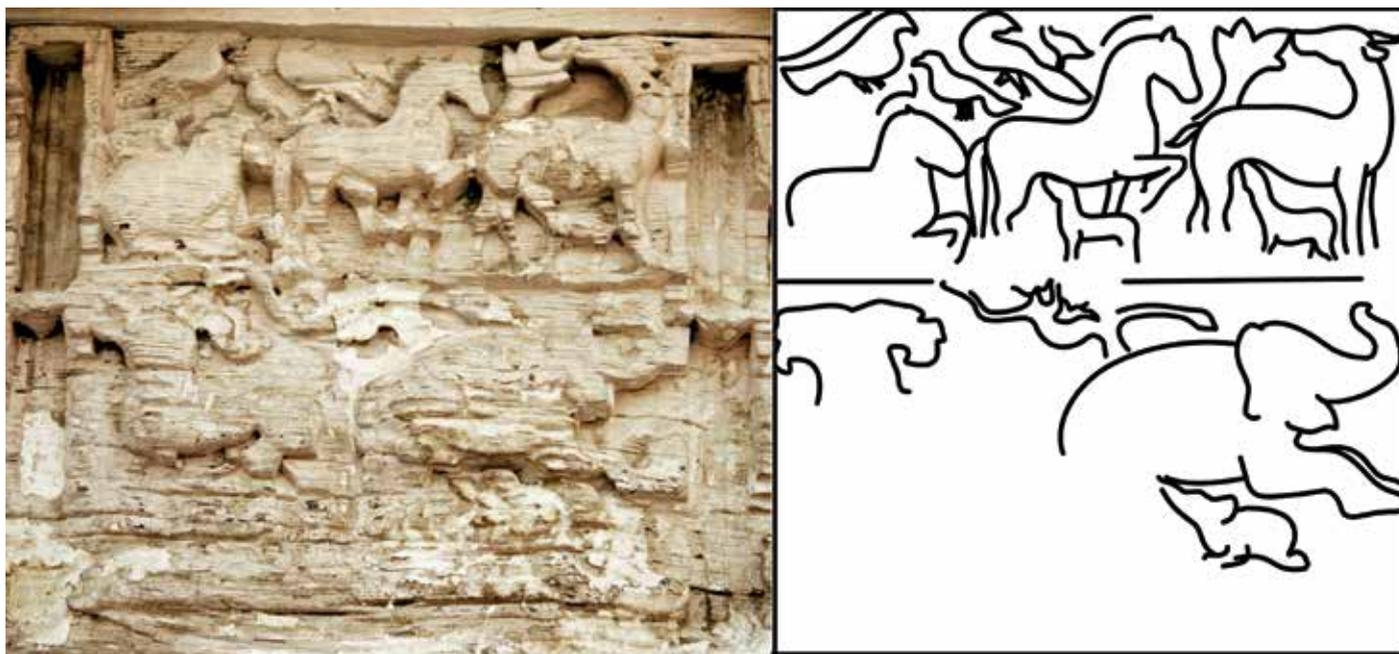
ing birth, are consistent in recounting the tale of the queen stopping at the Lumbini grove (*Lumbinī-vana*) for a rest on the way to her parents' home. While taking a break under a *Plakṣa*/ *Aśoka* or *Śāla* tree (depending on the literary source), she grabbed a branch of the tree, and the Bodhisattva left her womb from her right side without injuring her.

Again depending on the source, different people received the divine infant in the moment of his birth: the Four Mahā Brahmās (*Nidānakathā*, *N*)²⁰, the Four Lokapālas (*Mahāvastu*, *MV*)²¹, Indra in the shape of a nurse (*Mūlasarvāstivāda-Vinaya*, *MSV*) and Indra/Śakra and Brahmā (*Lalitavistara*, *LV*). The *Buddhacarita* (*BC*) only relates of numerous female attendants, but no gods.²²

On the second section of the frieze the Simultaneous Birth is depicted as different kinds of animals shown on two levels above each other (fig. 171).

The first animal on the upper level looks like a sheep, the next one is a horse and the last one a cow. The horse and the cow are shown together with their offspring while suckling them. The left part of the lower level is so damaged that no interpretation about its content has yet been possible. On the right side an elephant can be seen also suckling its calf. Most of the literary sources on the Life of Buddha Śākyamuni, except the *BC*, recount numerous simultaneous births with a great number of human infants and animals, while the numbers vary from text to text, as Schlingloff has already noted (2000: 335).

Fig. 171: The Simultaneous Birth on the lintel fries.



Although the *BC* does not start with the Buddha's last stay in Tuṣita Heaven, it tells that all Buddhas are reborn for the last time from Tuṣita Heaven. See Lucanits 1993: 10; Klimburg-Salter 1988: 195.

20 The *Nidānakathā* (*N*) is an important text of the later southern Pāli tradition and was probably formulated in the 5th century CE. It tells the story of the Buddha in three parts, starting with throwing himself at Buddha Dīpaṃkara's feet. See Klimburg-Salter 1988: 195.

21 The *Mahāvastu* (*MV*) is part of the *Vinayaṭīkā* of the Lokottaravādins, a branch of the Mahāsāṃghika. It consists of older verses written in Buddhist Sanskrit and was enlarged with prose written in classical Sanskrit. The oldest parts are said to be, like the *MSV*, probably from the 4th century CE. See Lucanits 1993: 12.

22 Rhys Davids 1880: 66; Jones 1952: 18; Panglung 1981: 85; Foucaux 1884: 77; Johnston 1936: 3.

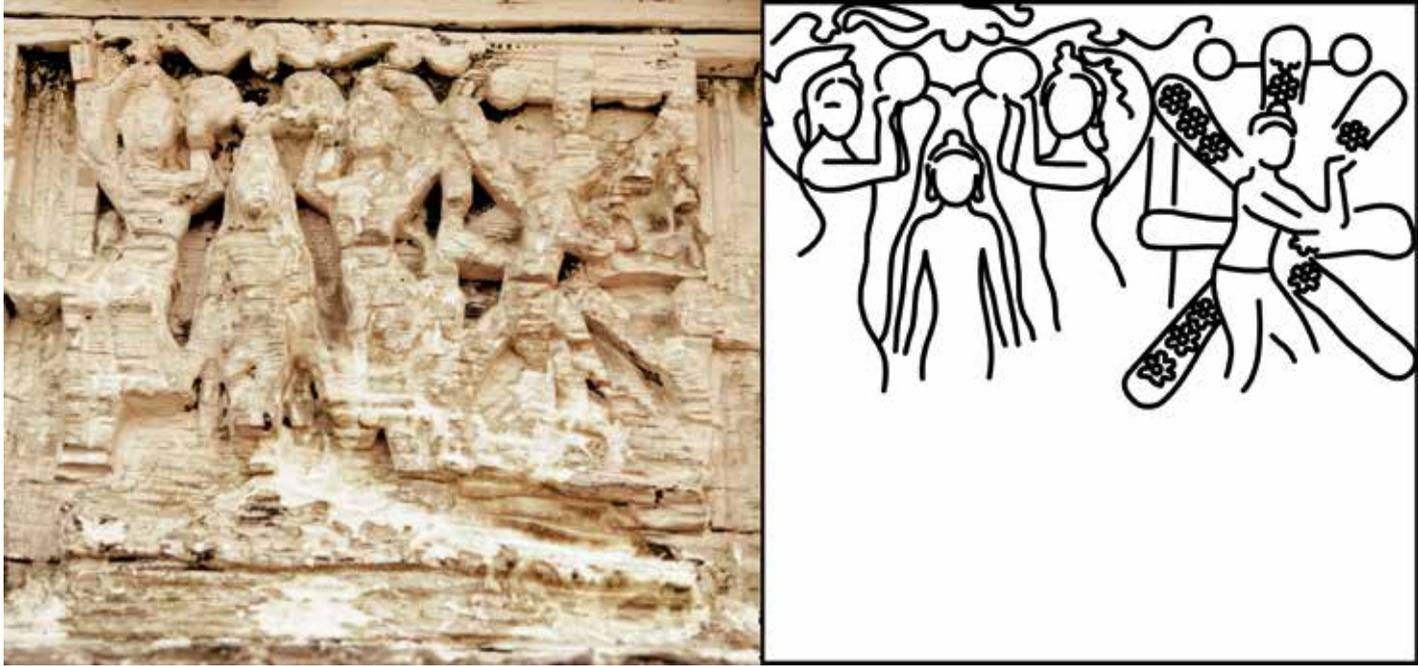


Fig. 172: The First Bath and the First Steps of the Bodhisattva on the lintel fries.

The following third part of the frieze is divided into two episodes from the life of the historical Buddha (fig. 172). In the left section the First Bath of the Bodhisattva is shown. One can see the young Bodhisattva in the centre, clearly recognizable because of the small *uṣṇiṣa* on the crown of his head, shown *en face*. The two flanking figures are Nanda und Upananda (or Kāla and Akāla), two *nāga* kings wearing a kind of cap of snakes, therefore identifying them as *nāgas*; both hold their arms above the head of Śākyamuni with a round pot in their hands out of which two streams of water run from the head of the Bodhisattva along both sides of his body.

All known texts recount the Bodhisattvas first post-natal bath. The *MSV*, the *MV*, the *N* and the *BC* all describe a warm and a cold water stream coming from heaven, or Indra and Brahmā giving this first bath to the Bodhisattva, while only the prose of the *LV* tells about the two *nāga* kings.²³ The First Bath of the newborn Buddha Śākyamuni is part of the oldest tradition on his life, and it is located in the *N* and the *LV* before the First Steps. In other sources, such as the *MSV*, the *MV* or the *BC* it is described that the newborn child takes his first steps immediately after being born, before receiving the first bath, as already observed by Schlingloff (2000: 332).²⁴ The next episode to the right of this section shows the First Steps of the Bodhisattva. In the centre a badly preserved male figure can be seen, obviously shown in profile. His two legs are depicted in motion, and it looks like as if this figure is running towards the right side of the section. Around it six to seven paths can be seen arranged around the central figure like a star, obviously alluding to the different directions the newborn Bodhisattva is said to have gone. On some of these paths small flowers can still be detected and “additional

23 Schlingloff 2000: 325; Panglung 1981: 85; Rockhill 1907: 16; Jones 1952: 20; Johnston 1936: 5; Rhys Davids 1880: 67; The prose of the *LV* tells of the two *nāgas* bathing the Bodhisattva, while the verses of the *LV* tell of Indra und Brahmā together with other gods. See Foucaux 1884: 78; Mitra 1998: 114.

24 See also Rhys Davids 1880: 67; Foucaux 1884: 78–79; Jones 1952: 18–21; Panglung 1981: 85; Rockhill 1907: 16; Johnston 1936: 4.

lotuses are placed between these rows as if the Bodhisattva were also walking in a circle”, as Luczanits has stated (2004: 76, fig. 71). Although the depiction of the central figure is very uncommon, the First Steps of the Bodhisattva are shown, which he took in the four cardinal directions, the East, the South, the West and the North and then towards the Nadir below and the Zenith above, as Foucaux and others have already mentioned. Through these first steps the newborn child takes possession of the world into which he was born. Under each of his steps a single lotus flower is said to have blossomed.²⁵ The First Steps of the Bodhisattva also belong to the oldest sources on his life, and all biographies commonly refer to seven steps, but it varies as to whether the Bodhisattva moved in a single direction, as in the *MSV*, the *MV* or the *N*, or multiple times into the six cardinal directions, like one can find in the *LV*.²⁶ The *BC* relates that the newborn first took seven steps and then looked into the four cardinal directions.²⁷

In the fourth section four figures can be seen (fig. 173). On the left of the section a seated male figure is depicted; he sits in meditation posture (*dhyānasana*). On the right side a female figure is depicted, also seated, with a slimmer chest and a slightly curved belly. She has an opulent hairstyle like Queen Māyā in the first section. Above her head a half-round shaped baldachin is depicted. The figure in the centre of the image is shown smaller than the two flanking figures and is standing upright in the posture of *tri-bhaṅga*; also a small *uṣṇīṣa* can be detected at the top of his head. Behind the seated male figure to the left a fourth, obviously female depiction can be seen. She seems to be part of a deeper level behind the main scene. She holds a kind of pot or a fly whisk above the Bodhisattva’s head.

Fig. 173: The Dressing before the Visit to the Temple on the lintel fries.



25 Foucaux 1884: 79; Mitra 1998: 115.

26 Panglung 1981: 85; Jones 1952: 18–20; Rhys Davids 1880: 67. The *N* describes that he took his first steps just in one direction but looked into ten directions before that: the four cardinal directions, the four side directions and the Zenith and the Nadir.

27 Johnston 1936: 4.

Because there was no other known depiction of this kind, the only possibility to find any explanation for the content was to search the literary sources already mentioned more thoroughly for a written example from Śākyamuni's life where he is together "with his parents" like Luczanits has already stated (Luczanits 2007: 512). Only the *LV* recounts an episode in which King Śuddhodana, the father of the historical Buddha, tells his second wife, Mahāprajāpatī Gautamī, to dress up the prince and decorate him with jewellery to prepare him for his traditional first visit to the temple.

According to the *LV* the king himself enters the chamber of his wife for this purpose. While being dressed the Bodhisattva suddenly asks his foster mother about the occasion of all this. When she replies that he is to be brought to the temple, he turns towards her and recites the *gāthā*, a kind of verses, reminding her of his birth, or all the events that happened simultaneously and of all the gods who were there to praise him.²⁸ Comparing this episode from the *LV* to the content of this section of the lintel-frieze, one can assume that the male figure to the left is King Śuddhodana, the female depiction on the right Mahāprajāpatī Gautamī and the central figure is the young Bodhisattva. The second female depiction in the back might be a servant with a fly whisk. All known sources, except the *N*, report on the Bodhisattva's First Visit to the Temple, but the *LV* is the only biography telling about the incident before it.

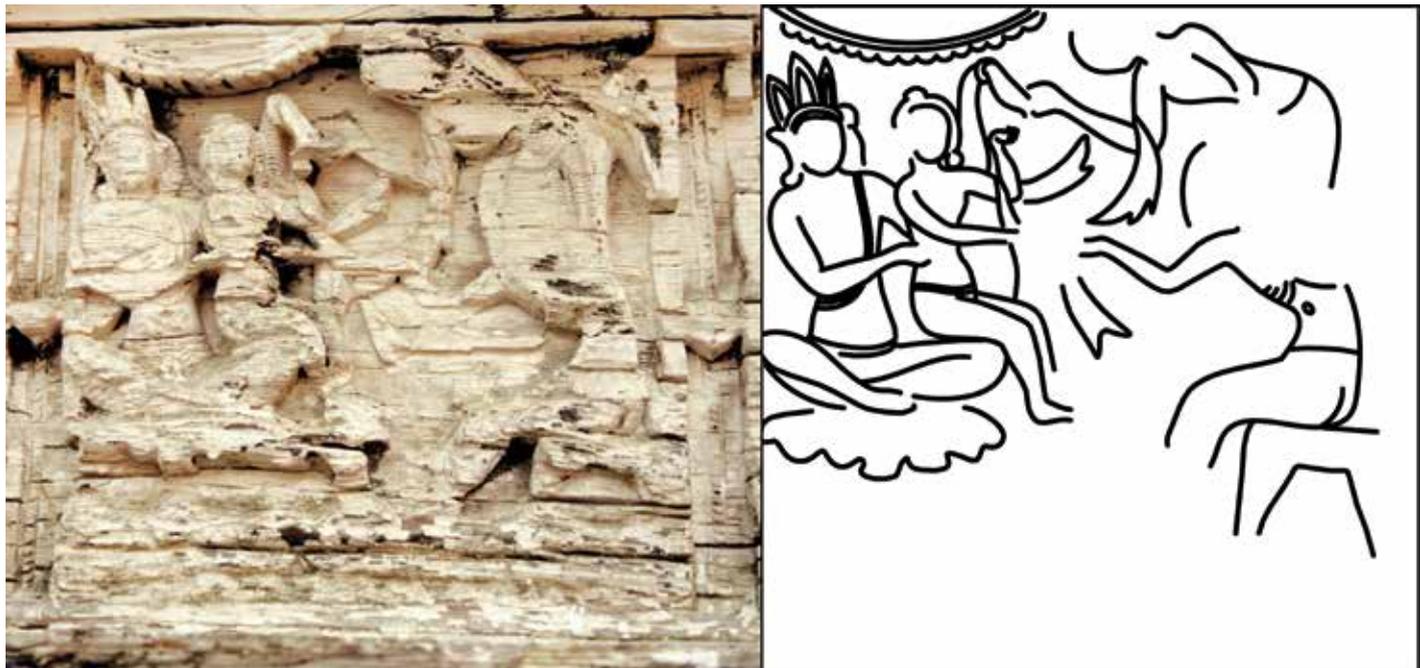


Fig. 174: The Visit of the Sage Asita on the lintel friezes.

28 "Then the Prince, with a pleasant face and an arch smile, addressed these verses to his aunt: "On my birth all these three thousand regions trembled; and Śakra, Brahmā, Suras, Maharagas, Chandra, Sūrya, Vaiśravana and Kumāra saluted me by lowering their heads to the ground." (...) "Which are the gods then which are so much greater and nobler than me to whom you wish, mamma, to send me? I am the god of gods, nobler than all gods. There is no god equal to me; how can there be one greater than me? (...) For the gratification of the people, mamma, I shall go. By beholding me the crowd will be greatly exhilarated (...) and men and gods will know that I am the greatest god". See Mitra 1998: 159; Foucaux 1884: 107.

The fifth section of the frieze shows the Visit of the Sage Asita at the court of Kapilavastu (fig. 174). Four male figures are depicted in this episode. On the left border a seated figure wearing a three-pointed crown on his head is depicted, sitting on a kind of throne. On his left knee a much smaller male figure is seated. These two figures seem to be Śuddhodana with his son, the Bodhisattva, sitting on his lap. Above these two depictions, a half-round shaped baldachin is again shown. On the right side of the section two more male figures can be seen.

The lower figure sits on a small stool shown in profile, while the second figure, shown in the background, seems to hold something above the Bodhisattva's head that looks like a fly whisk; maybe a servant is shown here depicted within a deeper level of the scene, like the female servant in the previous episode. The seated figure seems to have a strongly bent chest and a very slim waist and belly which raise the possibility that the figure is emaciated. Obviously this could be the sage Asita came to Kapilavastu to meet the Bodhisattva.

All literary sources mentioned (the *MSV*, the *MV*, the *BC*, the *N* and the *LV*) describe the Visit of the Sage Asita. In these narrations the sage comes to the palace asking the king for permission to see the child in order to detect the 32 signs of a *mahāpuruṣa*—an auspicious being—on the baby's body.²⁹ In some of the biographies, like the *N* and the *BC*, the child is just shown to the sage, but other sources, like the *MSV*, the *MV* or the *LV*, recount that the sage holds the child in his arms.³⁰ In the Indian art of Gandhāra the child is always depicted on the lap of the sage, while the art of Tibet always shows the Bodhisattva on his father's lap.

In the sixth section the Four Encounters of the Bodhisattva seem to be shown (figs 175, 176). Unhappily this part of the lintel frieze is so destroyed that no clear interpretation can be made (another possible interpretation beside the above mentioned will be explained in detail below).

Nevertheless, four obviously male figures can be discerned. In the lower left corner a small and simply depicted cart consisting of a simple board and two wheels can be seen with a figure seated on it. The upper part of the body bows slightly back and the right bowed arm is lifted up above the destroyed head of the figure. In front of the cart another image is shown, obviously moving towards the right side of the section. There might have been another figure in the lower right corner but it is so damaged today that no clearer attribution can be made. Above the figure on the cart another male figure can be seen, depicted in high motion with the two arms expressively stretched up. In his left hand a round pot can be seen out of which a stream seems to flow down on the head of the seated figure in the right upper corner of the section. This figure is shown kneeling, while bowing his head and chest and holding his hands in front of his chest.

If we now move the seated figure on the cart into centre it seems likely that the Four Encounters of the Bodhisattva which he made out of the palace into the four cardinal directions are shown.

In this case the seated figure on the cart would be the Bodhisattva, a very common kind of depiction in later painted art as seen in Tholing Monastery in Western Tibet from the 15th century: in front of the cart is his servant, the old man or the monk; the very expressive figure could maybe be interpreted as an emotionally moved, mourning depiction of the funeral procession for the dead man; and the kneeling man then would be the sick man, sitting on the ground with a swollen belly, as was often shown in early Gandhāran art. The Four Encoun-

29 Rhys Davids 1880: 69; Panglung 1981: 85; Jones 1952: 29; Foucaux 1884: 92–99.

30 Rhys Davids 1880: 69; Johnston 1936: 13; Jones 1952: 29; Foucaux 1884: 92.

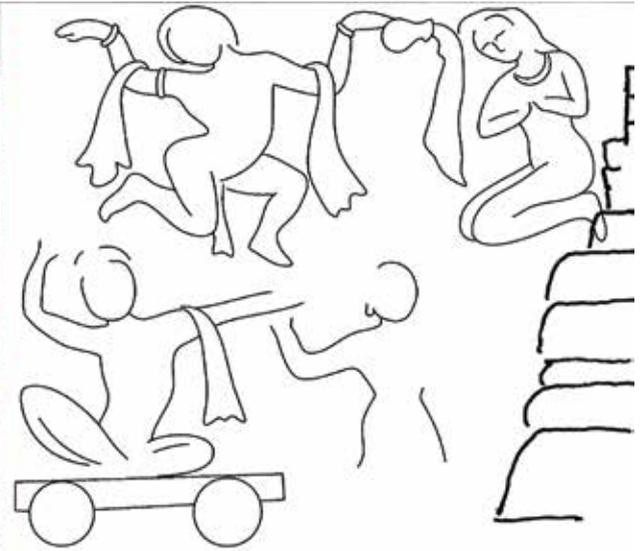


Fig. 175: The Four Encounters of the Bodhisattva on the lintel frieze.

Fig. 176: Detail of the Four Encounters in the Lhakhang Marpo of Tholing.

ters of the Bodhisattva outside of his father's palace are among the most important episodes in the life of the historical Buddha. During these encounters, for the first time in his life the prince came in contact with old age (an old man), suffering (a sick man), and death (a dead man), and thus discovers that life is full of suffering. During his fourth encounter he meets a monk, who shows him the way out of this life-lasting suffering. Already in the reliefs of the early Indian art of Gandhāra, the Four Encounters were very often summarized within a single encounter. Different versions of this episode known to us and within different genres of art, rarely show all four meetings from this episode together within the depiction of the Four Encounters, but the majority of examples just include one or two of them, representative of

all four encounters. If we now try to reconstruct the poorly preserved right part of the section in a different way, assuming that this originally could have been half of a *mchod rten* or *stūpa* and the Bodhisattva lifts up his right arm to cut his long royal hair, another episode out of the life of the historical Buddha comes to mind, namely his tonsure after the Great Departure or Renunciation. According to all known literary sources, the Bodhisattva left the palace forever on the back of his horse Kanthaka accompanied by his servant Chandaka. Depicting him on a cart, as might be the case here, would be quite an individual interpretation of the episode. In art the tonsure is always shown in a quite similar way as Bautze-Picron has already pointed out: surrounded by nature, the Bodhisattva sits in *dhyānasana* with a sword in his right hand; he is flanked by the gods Indra and Brahmā and a *mchod rten* stands next to him (Bautze-Picron 1995/96: 369, 371). In regard to this important episode in the Life of Buddha Śākyamuni, the *LV* tells that after the Bodhisattva had cut his long hair with his sword he threw it up to the sky. The Trayastrimśa Gods took it to worship, and a *caitya* was built that is known as *Cuda-pratigraha*.³¹ Adapting this interpretation for this section the figure on the cart would be the Bodhisattva accompanied by his servant Chandaka in front of the cart.

The expressive figure shown above could be a flying and praising heavenly being, and that at the upper right may be a depiction of the Bodhisattva again being blessed by this heavenly being or one of the gods bowing down in front of him. Because of the poor state of preservation and the lack of any comparable example in art, a definitive interpretation of this section must remain open.

On the seventh and last section of the frieze, like the first section longer in size, four male figures can be seen. Here an episode out of Śākyamuni's life seems to be shown in which Devadatta, the jealous cousin of the Bodhisattva and his eternal adversary challenged his cousin to a wrestling match (fig. 177). During this fight the Bodhisattva lifted Devadatta up with one hand and hurled him above his head several times before throwing him to the ground.³² The standing figure on the left side seems to be the Bodhisattva, quite similar to the depiction in the central section. The bowed right arm of the figure is lifted up above his head, and it looks like if he is grabbing the floating figure of Devadatta above at one of his ankles. In the upper right corner of the section a seated male figure can be seen leaning his head on his right hand, possibly a judge, who according to several literary sources was part of the tournaments. Below this figure a fourth, also male, figure can be seen lying on the ground. This is probably Devadatta again, depicted within a continuous narration, after being thrown to the ground by the Bodhisattva.

The reasons for the physical training of the Bodhisattva, a very popular motive in early Indian art, vary from text to text. Some relate that the young prince was challenged by other young men from the court, while other sources ascribe the purpose as enabling the prince to show his strength and combat experience in front of his bride and her parents.³³ Devadatta is mentioned in all known sources on the life of the historical

Buddha, but only the *LV* mentions this single wrestling match between Śākyamuni and Devadatta during which the Bodhisattva punished his arrogant cousin.³⁴ This episode seems

31 Goswami 2001: 212.

32 Devadatta was a cousin of the Bodhisattva. As an adult he became part of the Buddha's community. His predilection for a strict ascetic life let him to drift into opposition to his cousin and led to a temporary splitting of the community and several attacks on the Life of the Buddha. See Mukherjee 1966: 1.

33 Jones 1952: 70–72 ; Foucaux 1884: 129–142.

34 Foucaux 1884: 138; Mitra 1998: 194.

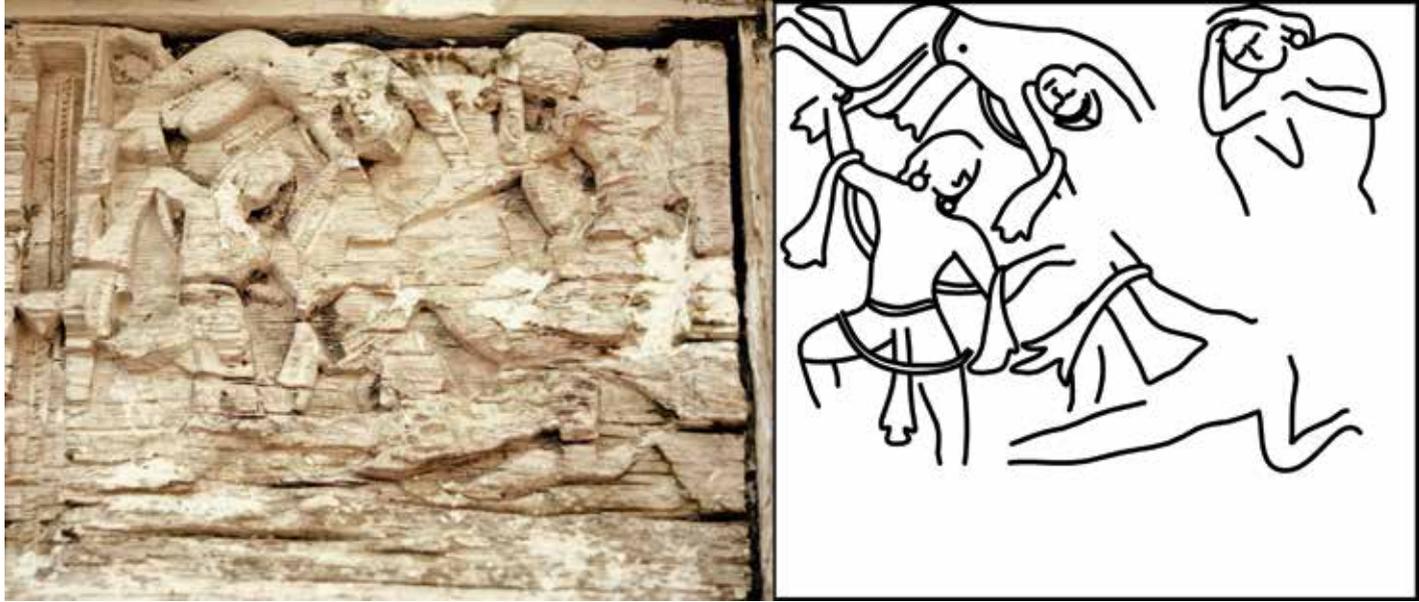


Fig. 177: The wrestling match between the Bodhisattva and Devadatta on the lintel frieze.

to have been quite popular in Western Tibet and was often depicted, especially in later wall paintings from the 15th or 16th century.

Within the detailed description of the seven sections of the lintel frieze and referring to the literary sources mentioned, one can see that the content of these seven sections depicts different important episodes from the Life of Buddha Śākyamuni, starting with his Birth in the leftmost section and ending with Tournaments of his Youth in the rightmost.

Beside some rare exceptions, the episodes, which are to be read from left to right, seem to be chronological. Following the analysis of different literary traditions on the life of the historical Buddha the *LV* seems to be the preferred source for the content of this frieze.

Nevertheless one has to keep in mind that other literary and artistic traditions were most probably also used, as seems to have been common practice in the region of Western Tibet. The content of the central section in the middle of the frieze still has to remain more or less open. Although the central figure seems to be the Bodhisattva and the baldachin above the female depiction highlights her importance, no royal insignia such as a baldachin, a throne or a crown are shown for the male figure to the left. The fifth section is clearly identifiable as the Visit of the Sage Asita, but the chronology of the *LV* is interrupted here by illustrating the probable first visit to the temple before the episode with the sage Asita. In comparison with the paintings of the Lhakhang Marpo (*Lha khang dmar po*, Red Temple) of Tholing it seems most likely that the Four Encounters are depicted in the next section, but because of the obviously quite individual selection of all the episodes depicted on the frieze, the interpretation of the Tonsure of the Bodhisattva could also be considered. The episode of the last section on the right is not surprising because of its existence but rather because its prominent position. In matters of the lintel frieze, scientists already had the suspicion that the frieze comes from a later time than the rest of the portal, basically because of its better state of preservation. Indeed, it is still common practice in the region to “recycle” wooden parts of old and unused or destroyed temples, either for lack of fresh wood or for traditional and religious reasons. Sometimes parts of already existing friezes were cut out and reused for other purposes. A good example of this phenomenon seems to be the portal of Lha Chuse in Kanji, Ladakh. The

lintel frieze of the Karchung Lhakhang contradicts this assumption due to the leftmost and the rightmost section with more length than the other five sections between them. Furthermore it is remarkable that the central part of the frieze below and the one above the lintel frieze are the same length as the central section with the depiction of the Dressing before the Visit to the Temple. If the frieze was inserted at a later time it would either be a great coincidence or the portal was reused as a whole, an assumption that reminds us of Tucci's information about the reconstruction of the Karchung at a later date. Concerning the better condition of the lintel frieze, it can only be assumed that it was probably somehow protected by the overhanging parts of the frieze above it.

A conclusive answer could be gained by chemically analysing the wood of the frieze and the rest of the portal. When we compare this frieze with other portals of the Western Himalayas, as mentioned at the beginning, it is remarkable that the central parts of the lintel friezes always show the Māravijaya or Enlightenment of the Buddha, which seems to have been standard at the time. The selection of the episodes on the frieze of the Karchung Lhakhang assumes that the portal probably comes from a later date than the temples of Nako, maybe even later than the 13th or 14th century, within a period of artistic Renaissance, a time of cultural upheaval or maybe a time when the religious orientation in Nako had changed.

But maybe it is just a product of a quite dominant donor who commissioned these individual and partly less common depictions. The assumption of Luczanits that the portal originally was located at the entrance of the Lotsawa Lhakhang seems a bit unlikely because of its size as it would have been too small for such a large temple.³⁵ Without a doubt the portal of the Karchung Lhakhang in its original condition must have been an outstanding example of the woodcarving tradition of the region, although it is in such poor preservation nowadays.

Acknowledgment

This paper is based on the research for my Master Thesis submitted at the University of Vienna in 2008 and a result of research conducted within the sub-project "Art History" (S9802) of the National Research Network "The Cultural History of the Western Himalaya from the 8th century (S98)" at the University of Vienna, directed by Deborah Klimburg-Salter and financed by the Austrian Science Fund (FWF). I would like to take the opportunity to express my sincere gratitude to Prof. Klimburg-Salter for her invaluable suggestions and critical comments over the years. Thanks are also due to the other members of the project, in particular Verena Widorn, Sarah Teetor, Uwe Niebuhr, Monica Strinu, and the Western Himalaya Archive Vienna (WHAV, available at: <<http://whav.aussereurop.univie.ac.at/>>) as well as to Gabriela Krist and Martina Haselberger for all their patience.

³⁵ Luczanits 2004: 311, FN. 258.





3 TECHNOLOGY AND CONSERVATION



3.1. Building Structure and Conservation of Roofs

Romi Khosla

At the time of Francke's visit to Nako in 1896, apart from the four temples that are there now, he had also observed a number of ruins of other buildings, probably monks' residences, all of which have now disappeared. Towards the south east of the temples, Francke recorded that there were a number of chortens (*mchod rten*) in ruined condition, which have gone too. The rubble stone buttresses at the corners of the temples, resembling a pile of stones leaning against the temple walls, are still seen today almost unchanged. We have not been able to determine when they would have been added to the structure, but in all likelihood the community placed them there after an earthquake, when some of the walls could have cracked. At any rate, these buttresses have been sensibly located at the corners where they provide the maximum support to the bulging walls that have begun to form in the structure. Earthquake tremors over the years have clearly compromised the structural integrity of the temples. The four temples appear to have been maintained periodically by the village community. Some ancillary structures have been added to the temples to provide kitchen facilities for the community, whereas on the ground outside the temple courtyard, the ruins of earlier buildings have been cleared for a road as well as a village school.

In 1998, Ms. Anuradha Chaturvedi prepared a preliminary condition assessment report under the guidance of the author on behalf of the Indian National Trust for Art and Cultural Heritage (INTACH) and the Institute of Tibetan and Buddhist Studies (ITBS) of the University of Vienna. At that time, the damage condition was a serious one. Some emergency repairs were carried out with the help of the community and temporary supports were provided to prevent the further collapse of the sagging roof beams inside the temples. In the following year, John Harrison prepared drawings of the four temples in a project funded by ITBS. Then in 2002, the village Gompa (*dgon pa*, "Monastery") Committee, in their eagerness to prepare for the impending visit of The Dalai Lama to Nako, renovated the roof of the Translator's Temple (Lotsawa Lhakhang, *Lo tsa ba lha khang*) by replacing some valuable original painted ceiling panels with new cedar wood (*Cedrus Deodara* L.) panels and covering the entire roof with a plastic sheet as a water proofing device.

The complex of the four temples and its ancillary structures occupy an area of about 1,000 m². The four temples are placed at the four corners of a central courtyard, which was originally surfaced with compacted earth measuring about 15 by 10 m. This courtyard has a prayer flag located on axis to the main entrance to the Translator's Temple, together with a chorten raised on a base (see figs 4-7).

The conservation work began in August 2002 with the documentation which was started when I visited the site with the restoration team including Sweena Berry, Anand Vishwanathan, Rachna Vishwanathan and Alan Rickerby from the Courtauld Institute of Art (CIA) and Christiane Papa-Kalantari, Verena Widom and Verena Ziegler from the ITBS in Vienna. During this preliminary investigation, wooden scaffolding was mounted to access the upper levels of the temples for the survey work.

Fig. 179: New system of support for original ceilings.



Fig. 180: Natural material used to stabilise mud in Nako.

This first phase of the conservation, which lasted till October, 2002 covered substantial ground. Restoration work in the Western Himalayas is a complex activity if it is to be successful. Apart from the technical issues that need to be resolved, conservation material has to be brought to the laboratories located in Delhi for testing. There are also community issues that require clarification so that the restoration activity has the active support and participation of the village and the temple guardians who convene the Gompa Committee. The restoration team had extensive discussions with the members of the Committee, as well as the craftsmen appointed by them to do the work, about costs, availability of the materials such as wood, bark, shrubs, earth and fabric (fig. 180) and the location of the office of the restoration team. Perhaps the hardest task for me was to synchronize time with the local community. The

understanding of the passage of time by the community and by our restoration team widely differed. When we began our work, we needed to create new measures for the words like "now", "soon", "in a little while" and even "tomorrow", "this year" and almost all words that referred to the understanding of the passage of time.

The initial documentation notes were prepared using the drawings that John Harrison had made in 1999 for the ITBS Vienna. However, during this first phase more detailed drawings were required with the supplement of a detailed photo documentation of the features and the damage status. In order to move forward from the excellent base work done by John Harris the team immediately started to work on a more detailed documentation. A set of measurements was taken to determine the relative floor levels of the various temples, the courtyard and the surrounding structures. A base datum level was marked from which all other levels were measured using the constant water level of this datum level. During this detailed survey, it was also possible to use plumb measurements to determine the thickness of the temple walls as well as their distortions from the true vertical. By determining the relative floor levels and doing trial pits, we were able to document the extent that the ground level had risen over the years on the outside of the temples over the internal floor levels. This difference in the level of the grounds was indeed one of the major causes for the seepage of moisture from the higher outside level, which abutted on the external temple wall, to the lower floor level inside the temple. The measurement of the moisture levels at the interior temple walls indicated the extent to which the higher external wall was transferring damp to the inner lower surface of the wall due to gravity. The resulting damage of the painted surfaces on the inner walls could be clearly seen (see fig. 230).

The investigation of the roofs revealed the need of emergency repairs before any long-term restoration could be put in place (fig. 181). The temporary props, which we had added in 1998 as an emergency measure, were still in place but needed to be repositioned to vertical alignment. In one section of the roof in the Upper Temple (Lhaxhang Gongma, *Lha khang gong ma*) the planks had deflected further than what we had observed in 1998. Moreover they were showing signs of splintering and needed to be supported with additional props.

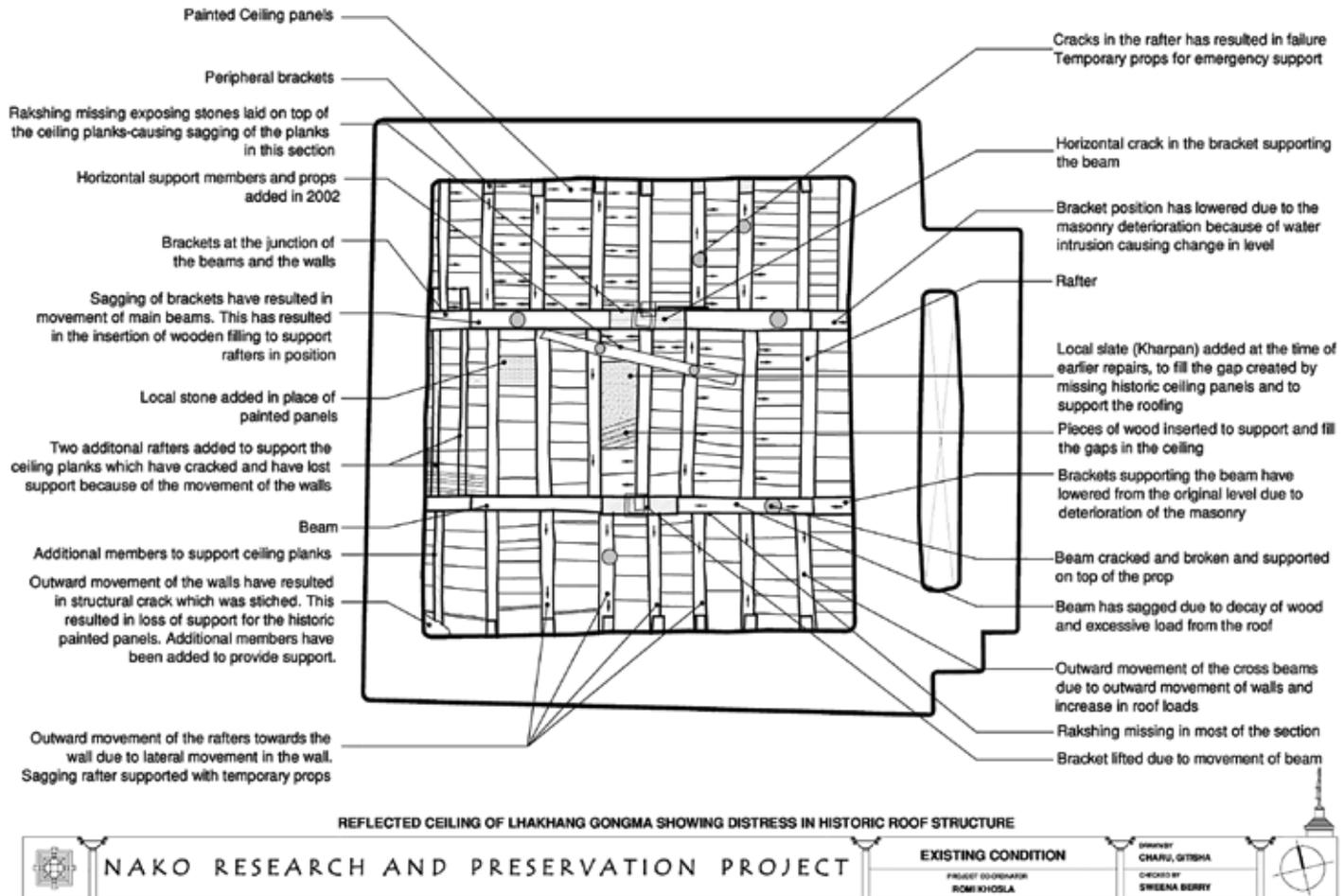


Fig. 181: Historical roof structure as documented at site of Lhakhang Gongma.

We observed that over the last four years, there had been a significant change in the roof gradients causing water to stand in the middle of the roof surfaces in all the temples. The water probably originated from melted snow which had not been removed by the caretaker. As a long-term restoration measure it was decided to open up the entire surface of the roof, remove the earth above the painted planks in the following working session and relay it after laboratories had tested samples of the used material (fig. 182). Accordingly, the following materials were taken for laboratory investigation:

- Birch bark which is traditionally used for water proofing of roofs. Fortunately, the villagers had removed some of this material during their earlier repair work and had kept it carefully.
- Four unbaked mud bricks that had been used for the original construction. They were taken from the damaged parapet.
- Two of the multitude of decayed wooden panels which were removed by the caretakers in 1998 from the Translator's Temple and substituted with new cedar panels.
- Pieces of mud plasters.
- *Tua* clay taken from the source identified by the villagers as the place from the pits where they habitually excavated clay for temple repairs.

Photograph illustrating the layers composing the roof



Fig. 182: Restored roof of Lhakhang Gongma. Layers of protection using traditional techniques.

There were two options regarding the conservation of the roof of the Upper Temple. The first was to realign the existing timber columns and beams from the original construction that were severely sagging inside. This realigning could be done by propping up the entire roof structure to remove the load on the ancient columns and straightening them out or replacing the ones that were damaged beyond recovery afterwards. The second option was to tackle the whole process of conservation from the outside and to open up the roof from the top. This would involve the removing of the entire mud from the historic roof and then covering the original painted ceiling by another roof above it. This double roof, which would carry the mud load, would thus protect the ancient timber ceiling and the entire structure from the increasing load of the earth. Detailed discussions were held with the painting restoration team. They feared that any realigning of the internal columns or beams, which would be necessary when choosing the first option, would inevitably damage the wall paintings in the upper areas of the walls where the original timber brackets had been inserted to take the load of the beams onto the walls. They examined this area carefully and explained how the paintings covered the wall surface right up to the bracket element. As a result they maintained that the wall plaster and therefore the wall paintings on it would be lost if the bracket was moved or shaken.

Our conservation team had discussed the logistics as well as the technical aspects of both options and favored the second option of tackling the conservation of the roof from the outside by removing the mud and adding a double roof just above the historic roof as an additional protection. My own view was that the historic roof, some eight centuries old, had “had enough” and that the decaying process of its internal timber structures needed a rest from the enormous loads and water leakages that had been built up on it. This option for restoration

could last for some decades and even longer with good maintenance practices. Our drawings and calculations showed that the overall height of the temple walls would raise about 45 cm. This raising would be done by using new unbaked mud bricks identical to the historic ones. This strategy was presented to the art historians, painting conservators and wood conservators who were present at the site and it was agreed that this option was the more conservative and least harmful strategy for repair.

Since the historic wooden elements have original paintings on them but are structurally weak and not able to carry weight of any kind except their own dead load now, wood conservation treatment was required on the columns, capitals, beams, brackets, rafters and ceiling panels. Beside the treatment of the wood, conservation work was necessary on the ceiling panels as well.

This second option strategy adopted by us for repairing the roof from the outside therefore left the interior free for the conservators to do their work at the same time as we were repairing the roof from above. As an additional advantage the conservation work time was reduced considerably. We thus detailed the operational strategy out before we began our work as follows (fig. 183):

1. All the historic painted wooden structural elements supporting the roof will be retained, consolidated and conserved in their existing positions but will not be required to carry loads any more.
2. The existing mud-roofing layer will be removed and stacked on the ground.
3. A new timber beam roof structure will be erected just above the existing historic roof and ceiling (fig. 184).
4. The new timber beam structure will be covered with the traditional mud roofing from the removed earth material stacked on the ground, which had formed the existing roof.
5. The load of this replaced mud will be carried entirely by the new timber beams.
6. It is of utmost importance to retain all the original structural elements intact while cleaning all the painted ceiling panels.
7. The earth load from the historic roof will be taken off and then transferred onto the new roof (fig. 185). The weight will be distributed evenly onto the existing walls through a system of new wall plates laid in the form of horizontal ladders on the mud walls at the level of the historic ceiling panels (fig. 186). The wall plates would be joined to each other at the four corners of the walls thus providing valuable tensile support to the walls for seismic stress.
8. The height of the Upper Temple will be increased by 45 cm as a result of the new roof structure. This increase in the height of the walls will act as a parapet and will be built out of adobe mud blocks with similar composition and size and with the same compressive strengths as the original blocks.

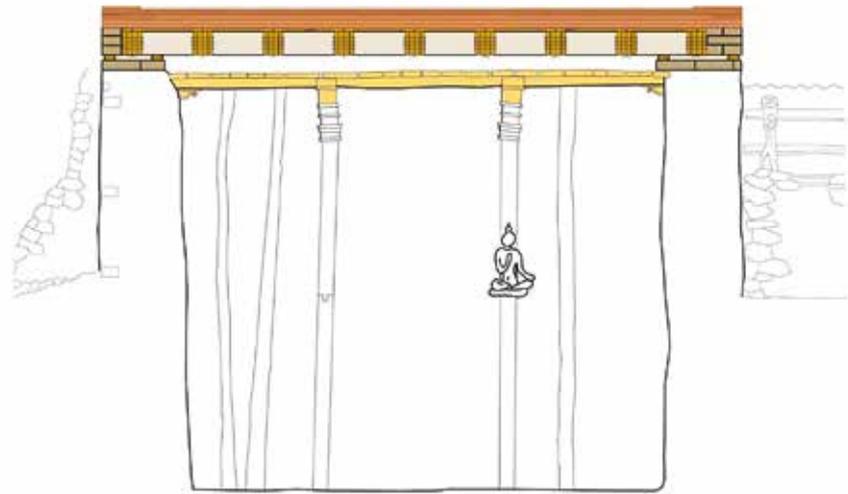


Fig. 183: Strategy for the structural conservation of the Lhakhang Gongma: historically painted structural members consolidated and conserved, don't act as load bearing members any more (yellow); new roof structure comprising of 9 beams and ceiling panels, placed on the wall plates, take the load of the new mud roofing (green); new Adobe blocks with similar composition of soil mix, size and compressive strength as the historic blocks (grey); new mud roof laid in 6 layers, illustrating the reinforcement by layering, composed of *tava* soil, *tua* clay, barley straw, mule/cow dung and water (brown).



Fig. 184: New cedar beams are placed over historical roof.

Fig. 185: Historical original plank ceiling in Lhakhang Gongma cleaned and relaid with new cedar beams to take the weight of the mud roof above.



The historic ceilings and timber roof would be retained intact, conserved, consolidated and secured from the top but relieved of the unbearable weight. In addition, it would be protected by a new structural system comprising of nine beams and a layer of new ceiling planks laid on beams and new wall plates.

TESTING AND FABRICATION OF STRUCTURAL ELEMENTS

The next stage of the work was to fabricate all the new elements and to test them before placing them *in situ*. The structural parts of the new roof were designed to ensure that these interventions would not stress the load bearing capacity of the temple walls. Using the same species of cedar wood as was used in the temple, the new roof was designed to span across the walls as well as to cope with the intermediate timber joints. The Wood Anatomy Discipline of the Botany Division at the Forest Research Institute in Dehra Dun had already confirmed that the timber sample of the original temple structure was *Cedrus Deodara*. After a considerable search we were able to identify sufficient quantity and quality for testing and construction purposes in a timber store at Solan in Himachal. First the wood was identified and acquired for testing and the team made three full-scale sample beam designs as options. Three types of joints were fabricated and load tested since the required length for the beam was over 7 m and there was no timber available for this length in one piece. The satisfactory sample which was able to deflect to minimum acceptable levels was the one in which the joint had a long 1.2 m fish plate in timber across the joint, secured with 16 galvanized steel bolts of 12 mm diameter and 25 mm length with an additional 30 mm stainless steel plate on the bottom side of the joint to cope with the tensile stress.

Generally the timber available in India does not have standardized or certified quality which makes it necessary for the designers to carry out detailed load and tolerance tests prior to finalizing any design. All three full-scale sample beams were therefore tested for external load bearing through loading each of them with 1,050 kg spread across the beam and monitoring their behavior.

The tests were satisfactory and the selected beam design was adopted for replication and application on the temple roof. So we bought the timber required for the nine beams and transported it, with some difficulty, to Nako. For the planks to cover the beams locally available cedar was used since the local timber depot of the Forest Department in the vicinity of Nako had only small dimension logs sufficient solely for planking. The 23 cedar logs required for planking the entire roof of the Upper Temple were purchased from Change Wood Depot about 20 km from Nako. Each log was sawn into three planks and all 69 planks were stored for airing and seasoning for a season in the saw mill at Malling Village adjacent to Nako.

WALL PLASTER AND WATERPROOFING TESTS

Traditional roofs in the dry regions of the Western Himalayas are flat with inadequate slope for water runoff (fig. 187). There is no material available which can provide a continuous mem-



Fig. 186: Wall plates introduced at corners of parapet to strengthen structure at corners.

brane surface to cover a roof. Conventional roofs in other mountainous parts of the world use either continuous membranes such as plastics or metal sheets or assembled membranes with slates or tiles to waterproof roofs. The Western Himalayas only have mud. Thus the roofs are only able to protect the structures below from snow and light rain. If the snow is allowed to remain on the roof until it melts, it is certainly going to cause damage due to water seepage. The roofs in the regions of Ladakh, Spiti and Upper Kinnaur are generally made of a clay (*tua*) applied in several layers supported by a layer of local shrubs (*nyange* and *nyazak*) placed on top of willow twigs. The thickness of the sub-course of the clay is approximately 20 cm. This is the layer which acts as the first defense against water penetration by absorbing it. This sub-course is finished at its surface with a slurry of a finer clay mix which needs to be maintained regularly as crust that prevents the erosion of the sub-course. Unfortunately, in Nako we found that this regular maintenance had not taken place with the result that water got absorbed into the deeper levels of the earth over the planks of the roof. This increased the load on the timber columns and beams below considerably. Expert Satprem Maini who had come from the Earth Centre in Auroville conducted a number of trials of the different mixes of local clay while also imparting training to the local masons for plaster application and earthen adobe brick production. The trials for the soil qualities were very exhaustive and lengthy since only one parameter per mix could be changed at a time during testing. In addition both mix ratios and moisture quantity had to be monitored too through measuring methods that could be understood by the local craftsmen and the trainees from the community. Detailed recordings were made of all ingredients for the earth for the roof as well as for wall plaster. These ingredients included yak, cow and mule dung, barley straw and clay sieved with 18 mm and 7 mm mesh. Layers of plaster with thicknesses varying from 2 to 5 mm were applied to determine the optimum sieving which allows the clay to resist water for the maximum of time. With each sample, the drying process was watched minutely and as the expected shrinkage cracks appeared on the surface they were monitored and filled carefully with slurry. At all times of this operation, the moisture levels were calibrated with moisture meters.

Prior to moving onto the Upper Temple roof, one more extended test was carried out on a sample roof of some 6 m² that covered a store room of the kitchen. We completely removed the roof and replaced it with another surface composed of the earth mix that had been designed for the Upper Temple roof. This mix consisted of 6 layers *tua* earth in varying thicknesses from 5 cm to 2.5 cm laid over shrubs, willow twigs and ceiling boards.

The sample was left for an entire season to weather. When checked on our return for the next season of work, after a winter and nine months, we saw that this trial sample had withstood the weathering successfully. There were some minor traces of erosion as well as hair-line cracks in the top crust layer. However, there had been no water seepage and the roof appeared stronger and more consolidated due to the slow inter-bonding of the clay layers over the winter months. These observations were communicated to Satprem Saini who opined that this provided sufficient confirmation for us to extend the specification and methodology to the main Upper Temple roof. So we moved to opening the old mud roof of

Fig. 187: Water retention testing of various mud mixes.

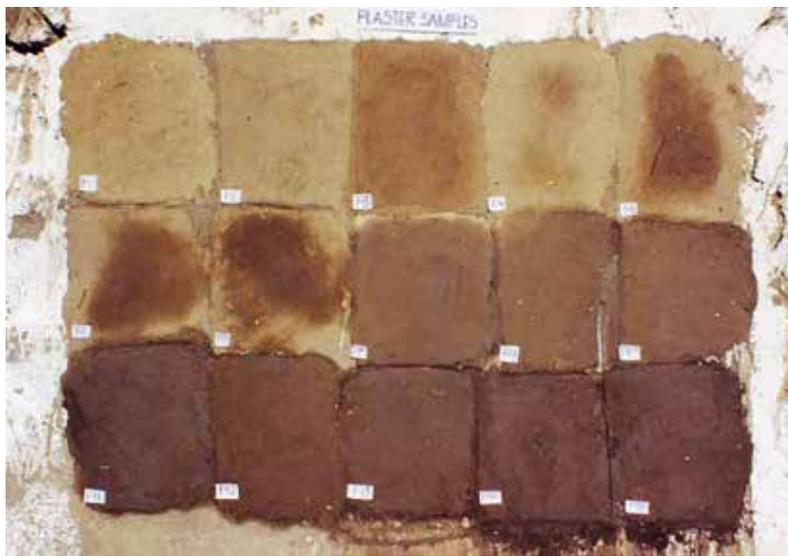




Fig. 188: Careful removal of the thick earth layer on the roof of Lhakhang Gongma.



Fig. 189: Stainless steel cables provide a system of support to the original cracked beams.

the Upper Temple. While removing the upper layers of mud we found that the excessive load on the roof was also caused by a large number of flat stones which lain buried within the mud of the roof. We were informed that they had been placed there sometime in the past as an effort to waterproof the roof by paving it. However, the wide range of stone sizes and their random laying on the surface showed us that they were unable to perform any other function than loading an already stressed roof. When removing the flat stones, we found that the thickness of the earth layer was 28 cm. This layer had to be removed cautiously and in stages to minimize the negative impact of removing the substantial weight on a structure that could have been there for centuries (fig. 188). While removing the earth in slow stages, layer by layer, the intact birch bark which was originally placed there in ancient times was found under the final layer. It was spread across the planking, which was painted with the original paintings on the underside. We had reached the final level before commencing the repair work and placement of the nine new beams. In the meantime we dispatched a team to the Sangla Valley to acquire additional birch bark to replace the old one, which had become extremely brittle. This new bark was then placed *in situ* on the new ceiling plank panels which were placed over the nine new beams. The rafters under the planks were also inspected closely from above and below. In one case where the rafter edge was deteriorated an additional cedar piece was added and the rafter position restored on the wall. On the west wall, the outward leaning movement in the wall had created a gap between the edges of the planks and the wall. Adding a rafter support along the leaning wall to support the ceiling planks, which were balancing precariously, rectified this.

Once the nine beams had been fixed in place, we attached stainless steel cables and suspended the historic roof beams with these regularly placed cables, which provided a complete system of support to the original cracked beams below (fig. 189). Prior to that a detailed inspection of the cracked beams was carried out from the inside of the temple to identify points where the cable could be fixed for relief. The cables have adjustable ferules attached to them and can be tightened over the years to compensate the deflections of the upper beam structure. It was assessed that the maximum deflection of the new double roof beams would occur during the first two years as the structure settled down to become integrated with the rest of the building. This would need another visit in the following year to carry out the tightening adjustments to the ferules. Unfortunately, due to financial constraints we were not able to monitor our work again.

Furthermore the opening of the roof allowed an important art historical restoration to take place. Christiane Papa-Kalantari was able to reorganize the panels based on art historical and painting technique analysis—latter conducted by the Institute of Conservation in Vienna. The additional panels, removed in the past, lying unprotected in the store room, were put back into the ceiling and the crudely painted recent additions were removed. This enabled the improvement of the integration of the painted originals in the overall conception of the fabric surface of the ceiling. We were able to use the local craftsmen to actively engage in this difficult task.

CONSOLIDATION OF THE ADOBE WALLS

The conservation and restoration of the adobe walls of the Upper Temple was guided by the need to replace stones that had been stuffed into the walls in the past as a result of *ad hoc* repairs. There was a need to replace these stones with adobe bricks in a way that would integrate with the historic walls and take the new load of the added double. In addition, there was a need to repair the walls and replace the adobe bricks in it that were visibly deteriorated or eroded over time. This work was all carried out from the outside and the walls were recast from the level of the internal ceiling. During this recasting activity the old intact adobe blocks were reused. Some of the old bricks showed substantial damage due to careless repair work done earlier. These ones were replaced by a ready stock of dried adobe blocks of the same historical size, which were prepared by us. The final layer of the wall was finished with a 5 cm thick layer of *tua* clay plaster to give a smooth termination to the adobe block course. On this final layer of plaster the wall plates were put to cap all four walls in order to carry the nine beams. The false niche in the east wall of the temple, which was doubtlessly conceived as an altar space at some time was sealed off and inaccessible. We opened this space from the top and removed a large quantity of mud that had been stuffed into it. Although there was some disappointment amongst the village community to discover that this legendary sealed cav-

Fig. 190: Restoration of rubble stone buttresses of Lhakhang Gongma.





Fig. 191: Restored walls of Lhakhang Gongma with temporary roof cover during restoration.

ity contained no priceless treasure or remains of monks or deities it was important for us to remove the heap of earth trapped in this niche as it was exerting a lateral push on the inner wall of the temple.

The overview of the team's conservation efforts reveals that we made interventions in five areas as follows:

1. Consolidation of the adobe walls
2. Structural consolidation of the roof
3. Lying of multi-layers of earth roofing
4. External plaster in four layers
5. Consolidation of the buttresses
6. Restoration of the Prajñāpāramitā by team member Johnathan Partridge

In this chapter I have only been able to describe the structural consolidation of the roof and give passing reference to the consolidation of the adobe walls (figs 190 and 191). These complex multi-disciplinary activities were carried out over four working seasons and essentially focused on the Upper Temple and its surrounding spaces. There are three more temples in Nako to be dealt with and if one considers the larger context of the early period Western Himalayan temples the task of renovation seems to be daunting. However, with the initial research and work done at Nako, I do believe that there is a deeper understanding of the nature of construction of these temples as well as the methodology that one needs to adopt to undertake conservation work in this region.



3.2. Learning from the Material – How Were the Temples Earthen Building Materials Made?

Marie Gruber

WHY INVESTIGATING THE MATERIAL

“Vorweg muss man aber vor allem in Hinsicht auf die Restaurierung klären, was Materie eigentlich ist, da sie gleichzeitig *Zeit* und *Ort* des restauratorischen Eingriffs verkörpert.” Brandi states that for the discipline of conservation that it is essential to define the material as it represents *time* and *place* of the conservator’s intervention. What Brandi further notes also applies for art theory: “Demnach stellt sich die Materie als das dar, was der Erscheinung des Bildes dient.” Brandi understands “Materie”, the material, as “Vermittlerin der Bildbotschaft”, as the agent of the pictorial message (Brandi 2006: 47) and being in its service.

Prown describes investigating the artwork’s materiality as a physical process that is not filtered through the mind and thoughts: “This is the great promise of material culture: By undertaking cultural interpretation through artifacts, we engage the other culture in the first instance, not with our minds, the seat of our cultural biases, but with our senses. Figuratively speaking, we put ourselves inside the bodies of the individuals who made or used these objects: we see with their eyes and touch with their hands” (Prown 1993: 17).¹

Making a clear principle, Hahn states that “materielle Formen des Ausdrucks einer Gesellschaft: Handwerk und Wirtschaft” are not subordinated to “geistigen, immateriellen Ausdrucksformen: Sprache und Text” but cause and relate to each other. The material and the immaterial are not to be seen in a hierarchical order, but they are interlinked; which in German may be understood literally with the term “*be-dingen*”. However, the material approach in art theory has long been neglected as well as under-estimated—Hahn speaks very generally about a “in der europäischen Geistesgeschichte verankerte Asymmetrie” (Hahn 2005: 9)—which just since the 1990s, with the “cultural turn was a material turn” (Hicks 2010: 28) has undergone a certain shift of interests and perspectives in humanities.

Tilley names the way of thinking from a material culture perspective as “objectification”.² He looks at the material object more widely, namely within its social contexts and relationships. In its service for man in everyday life the object is not confined by its own integrity and material entity alone. It is moreover a part of the circle of life and relates to and affects the human in a much broader context, as Tilley writes: “An objectification perspective provides an answer to both these basic questions, as it is to do with what things are and what things do in the social world: the manner in which objects or material forms are embedded in the life worlds of individuals, groups, institutions, or, more broadly, culture and society” (Tilley 2006: 60).

Considering the material as a body, a vessel that bears and enables human beliefs, images, knowledge, senses and actions, directs to the idea of the human in religion. Harrington says

Fig. 192: Finding of local soil tava, Tin Mokbhar.

1 Regarding Nako the quoted aspect of “the other culture” is noticeable.

2 Tilley understands the “concept of objectification” to be “at the heart of all studies of material culture” (Tilley 2006: 60).

“We are embodied, meaning-making creatures. The goal of a material approach to religion in general—and tantric studies perhaps in particular—must be to find new analytical approaches that do justice to the ways in which this is so”. She here relates to the human material body and bodily practice where in tantra “the path to self-transformation begins” (Harrington 2010: 99). With the conception of embodiedness the relation of the material and immaterial can be described and further abstracted and interpreted.

When Ek briefly puts “Ein Gegenstand ist eine Handlung” (Hahn 2005: 9), the object and artefact being an action, we get back to the point and the very basic research question on the material origin and its creation. Regarding the Nako temple buildings it makes us curious: how were the temples’ earthen building materials made? This thought leads us forward to the authorship and the authenticity of the material, to those who created the materials, formed the material out of the matter, to their handwriting, the skills behind the product (Baudrillard 2007: 99), and knowledge unrevealed.

CONSERVATION AND MATERIALITY

In conservation science the interest in investigating the material arises necessarily directly from its practical purpose (Krist 2011: 243f.). Brandi confirms this in his well-known *Teoria del restauro* with the first principle “Man restauriert nur die Materie des Kunstwerks.” (Brandi 2006: 45).³

Scientific analysis of materiality in conservation is essential *before* undertaking any intervention—and it is *complex* because the material is not just the matter but incorporates the many facets and layers, given the perspectives sketched above. Brandi contextualises and qualifies his first principle with the second one, “Die Restaurierung soll danach streben, die potentielle Einheit des Kunstwerks wieder herzustellen”; conservation is to restore the potential unity of an artwork and further, in doing so shall avoid any artistic or historical imitation or, more strongly fake (“Fälschung”), and also shall not extinguish at the artwork the manifold traces of time (Brandi 2006: 46).⁴

To embrace the multifold aspects of the quoted artworks’ “potential unity,” scientific material analysis in conservation has to address several research scopes: the historic material and material technology, as well as parameters for material alteration and decay, and for applied conservation science.

The Institute of Conservation’s “Scientific Study of the Artwork at Nako” funded by the Austrian Science Fund was dedicated to the comprehensive material investigation of the Nako temples interior decoration, the wall paintings, sculptures and painted ceilings (Bayerová and Gruber 2010). The engaged project consisted the major research focus within the Nako Project of the institute and involved the institute’s staff, students, alumni and a great many of Indian, Austrian and European scientists (Krist and Gruber 2010).

The questions on the earthen temple buildings’ materials with respect to their function as decorative supports formed one topic within the overall research focus. Above all, the extensive analyses of the earthen materials served the necessity for conserving the temples interior

3 When Brandi states “nur”, this “only” refers to his second principle, where he illustrates the risks of conservation when going beyond: in interfering with the artist’s handwriting and expression. This “only” does not limit the significance of the material, and its conservation, but on the contrary, a subject which Brandi discusses in the *Teoria del restauro* comprehensively (Brandi 2006).

4 Note Riegl’s concept of “Denkmalwerte” in Bacher 1995.

decorations on earthen supports. Besides this, the analytical study was to document and re-view the unwritten earthen building tradition in Nako Village.⁵

Again, we return to the question: how were the temples' earthen building materials made? Though in theory this question sounds all too simple, its analytical answer turned out to be difficult and remained an approach to certain material and technological parameters.

WHERE DO WE START: LOCAL EARTHEN RESOURCES AND THEIR CURRENT USE

Before focussing on the temples' earthen materials it is necessary to "put ourselves into the bodies of the individuals who made" (Prown 1993: 17) the temples and to take a closer look at the earthen resources available in the village.⁶ The availability of local soils to be used in various ways for building (as universal construction materials, as a base for paintings and pliable materials suitable for sculpting) poses the material and technological precondition for the temples architecture and literal "base" for their artistic interior decorations.

The availability of local soils and their manufacturing know-how can still be traced today: In Nako one comes across three soils gathered as raw earthen materials for utilisation in traditional building practice. They are called *tava*, *tua* and *sassa* and differ in their availability, material composition and properties, and the purpose for which they are used.

Tava, meaning "earth" in local Bhoti language, has a yellowish brownish colour. The abundant uncompacted soil that can be found on many places in the village consists mainly of poorly sorted gravel and sand sized detritus derived from granitoides of the High Himalaya crystalline. The clay content, and thus its plastic component, is low. *Tava* is composed of quartz, K-feldspar, albite and abundant mica and resembles a granitic parent rock. The predominant clay minerals are illite/muscovite and chlorite, both of detrital origin. The plasticity index is low, the shear strength is rather high. In local building tradition *tava* is mainly used as an aggregate for mortars. The experienced master-builder checks the quality of the raw material that depends from the place where it was gained from: he crumbles the grains between his fingers, when doing so, he knows how to further use the soil variety, if and how much of a raw material rich in binder, meaning its clay contents, might be added for the mortar processing. *Tava* can be processed without any other clayey additives though; in any case it is essential to sieve the coarse soil before its further use and application (fig. 193).

Tua is found on one particular place close to the village in so-called Kirsi. It is light grey in colour and most likely a fine-grained deposit of a glacial lake. Silt and clay contents of the very compact *tua* are high, resulting in better plasticity properties and a higher plasticity index

5 The analytical examination was based on both, on-site measurements and subsequent laboratory work on samples from soils and support areas that asked for immediate conservation intervention. Non-invasive techniques used *in situ* included measurements of interior wall surface temperatures, surfaces conductivity, abrasion, and semi-quantitative measurements of salt ions. The study of earthen samples from local soils and the support applied optical microscopy, scanning electron microscopy with energy dispersive X-ray analysis, X-ray diffraction, X-ray fluorescence, high performance liquid chromatography, the standard sieving method and determination of Atterberg limits of earthen samples, simultaneous thermal analysis, thermogravimetry, Helium pycnometry, Mercury intrusion porosimetry, digital image analysis, gas chromatography and mechanical tests.

6 Eltgen (2001: 383) mentions that for centuries earthen resources in Tibetan building traditions have been gathered from the immediate natural surroundings, be they from the river banks or the mountain quarries

than *tava*. The bulk rock mineralogy consists of calcite, quartz, mica, chlorite and little feldspar. Although in grain size distribution and bulk mineralogical composition not to be compared with *tava*, the clay mineral assemblage of illite/muscovite, chlorite and small amounts of kaolinite of *tua* is very similar to that of *tava*. *Tua* is used as a traditional binder to be admixed in earthen mortars as well as an insulating material for vernacular roof constructions. The hard lumps of *tua* siltstone need to be crushed before one can process them, for which a wooden hammer is used. On a base made of wood or stone *tua* lumps are crushed coarsely and then with pressurised rotary movements finely pestled (fig. 194).

In the village the mixture of *tua* and *tava* in a volume ratio of 1:4 is considered to be most efficient and practicable for mortar applications. Depending on the quality of *tava* varieties this ratio might be adjusted towards 1:5 and 1:6. Compared with plain *tava* the 1:4 mixture is finer, as its silt and clay contents are higher. Admixing *tua* also impacts the bulk mineralogical composition: what is mostly noticeable is an increased calcite content of the mixture. In contrast, the clay mineralogical composition is not influenced by *tua* contents. Plastic properties get slightly improved whereas shrinkage remains more or less similar to *tava*. It should be noted that shear strength is increased: admixing silty and clayey *tua* does not affect the mixture's shear strength properties. Vegetal fibres that in Nako are usually added dry and not in a wet state are obtained from local barley straws cut in approximately 2 to 3 cm length. Added barley straw reduces shrinkage and increases the total porosity of mortars and therefore, generally speaking, enhances mortar material properties. Local spring water that is required for the mortar's manufacturing process may be drawn from two different sources in the village. Water probes from one of the sources showed a higher concentration of nitrates which may be explained by the agricultural land upslope through which the water channels run.

Sassa is gained from one rather small and hidden place above the village on the way to Tashigang. The sources are rather heterogeneous. *Sassa*'s fine components used for building purposes make a greenish white, well-compacted, unstratified deposit resembling a till. Similar portions of gravel, sand, silt and smaller amounts of clay result in an extremely poorly sorted sediment. Main constituents of the bulk mineralogy are varying amounts of dolomite, calcite, amphiboles and pyroxenes. Besides illite and kaolinite in traces, the predominant clay minerals are a mixed layered smectite/chlorite and/or a smectite. Thus *sassa* differs considerably from *tava* and *tua*. *Sassa* shows the highest plasticity index and the lowest shear strength of the three soil types. In contrast to the two other soils *sassa* is difficult to collect and can just be transported by foot. *Sassa* is regarded as a specific soil variety to be further used as an insulating coating for interior walls. The whitish sand that covers the area down-slope the *sassa* finding is applied for coverage of flat roof constructions of the traditional village houses (fig. 194).

Table 1: Grain size distribution of local soils (all in m. %).

Material	Reference area	Soil	Soil type	Gravel	Sand	Silt	Clay	Gravel			Sand			Silt			Clay
								coarse	medium	fine	coarse	medium	fine	coarse	medium	fine	
local soil	Tin Mokhbar	<i>tava</i>	gravelly silt	19,7	52,1	21,9	6,3	0	4,5	15,2	15,2	16,5	10,4	10,5	6,6	4,7	6,3
local soil	Kirsi	<i>tua</i>	clay-silt	0,2	2,6	71,4	25,9	0	0	0,2	0,1	0,1	2,4	20,4	28,2	22,8	25,9
local soil	Nako hill	<i>sassa</i>	clayey silt-sand	11,9	34,9	32,3	20,9	0	2,6	9,2	10,9	10,5	13,5	12,0	11,5	8,8	20,9

Table 2: Bulk mineralogical compositions of local soils (all in m. %).

Material	Reference area	Soil	Quartz	Alkalifeldspar	Albite	Sheet silicates	Calcite	Dolomite	Amphibole
local soil	Tin Mokhbar	<i>tava</i>	28	15	30	25	2	0	0
local soil	Kirsi	<i>tua</i>	22	2	8	28	36	3	0
local soil	Nako hill	<i>sassa</i>	14	9	7	35	9	10	15



Fig. 193: Local soil *tava* piled up.

Fig. 194: Local soil *tua* lightly coloured.

Fig. 195: Guided to the *sassa* finding.

One of the fundamental research questions was if these local soils could be traced in the temples building materials and interior decoration supports and if recipes and technological skills for manufacturing could be reconstructed through analytical methods.



Fig. 196: Adobe masonry in the Lotsawa Lhakhang apse.

THE PRINCIPLE OF THE TEMPLES SUPPORTING STRUCTURE: PLASTERED ADOBE MASONRIES

In principal, the supporting structure in the Lotsawa Lhakhang (*Lo tsa ba lha khang*) and in the three other temple buildings is similar, it consists of: the adobe masonry, joints with mortars and the two-coat plaster system of the first construction and decoration phase with a rough levelling plaster on the bottom and a finer-grained upper plaster.⁷ In contrast, secondary plasters from later decorations and repair phases, as well as renders for the exterior walls were applied just in one coat.

Adobes are jointed with mortars 1.2–4 cm thick. Joints were filled horizontally, vertical joints remained mainly unfilled. At areas above the ground, flat stones about 5 cm in size can be observed stuck in the horizontal joints; they seem to serve as spacers for the joints and anchors to the adjacent plaster. In colour, texture, structure and fracture adobes can be differentiated clearly from the other building materials. The adobes appear lighter in colour than the joint mortars, they sometimes show large aggregates and pieces of wood, but no fibres. Hence, they differ visibly from most of the plasters that usually feature fibre materials. At accessible areas in the masonries of the four temples different adobe sizes were measured. Adobe heights were at 11 cm, widths 21 cm, lengths were found with 38, 42 and 46 cm. The dimensions of 42 x 21 x 11 cm correspond with the proportion 4:2:1 and thus, as it is recorded for defensive building structures in Ladakh, with the adobe measures typical for the construction period assumed (Howard 1989: 218f).

⁷ In their comprehensive survey of wall paintings techniques in Western China Ma et al. 2007 conclude that “the main techniques, structures and materials of the wall paintings appear to be fundamentally similar.” They specify brick, stone or adobe masonries, a mud and straw preparatory layer and *secco* paintings based on animal or plant glue. Further they note that “there are small differences in the techniques and materials used for various reasons, such as different geographical area or climate, limitations of the choice of material etc.” (Ma et al. 2007: 110).

Also, the stone masonry of the Gyaphagpa Lhakhang (*rGya 'phags pa lha khang*) was filled with mortar from the interior to achieve an even vertical surface for the plaster support. Here no mortar thicknesses could be measured, the mortar in some cases has to fill gaps of 10 cm and even more between the stones. In general, the joint mortar has a striking reddish colour tint, which is especially evident in damp areas in the Lotsawa Lhakhang (fig. 196). Joint mortars are relatively coarse grained and contain no vegetal fibres. The mortar is relatively compact and with the naked eye shows no apparent pore structures.

WALL PAINTINGS SUPPORTS: THE TWO-COAT PLASTER SYSTEM

The two-coat plaster system (fig. 197) was applied without further anchoring or scratching.⁸ The observed lack of adhesion between the masonry and plaster and the extent of voids within the masonry has posed a significant risk for the paintings; it may probably to some extent be attributed to the plaster technology employed.

The lower coarse plaster layer shows thicknesses of 0.9 cm up to more than 7 cm. The highest values were measured at the stone masonry of the Gyaphagpa Lhakhang. The plaster appeared coarse grained, striking were several centimetres long, about half a centimetre thick, vegetal fibres. In very few spots in the Karchung Lhakhang (*dKar chung lha khang*) the intact, unweathered surface texture of the coarse plaster could be seen. It showed rough traces of abrasion and gave the impression as if the wet plaster surface was levelled with a plane tool, such as a wooden plank. The fibres in the plasters caused the marks on the surface from screeding the mortar.



Fig. 197: The two-coat plaster support.

Compared to adobes and joint mortars, coarse plasters from the Lotsawa Lhakhang, the Gyaphagpa and Karchung Lhakhang showed finer grained compositions. The plasters from these three temples featured almost identical sieving curves, though one sample from the Lotsawa Lhakhang apse appears slightly shifted due to the coarser fractions.

Coarse plaster sieving curves show a characteristic increase in the coarse silt and fine sand fraction. The bimodal distribution indicates that two raw materials have been mixed. The low gravel content of the plasters may be explained by the raw materials having been sieved or slurried or gathered very selectively from the finding to receive just fine grained soil components. High clay contents already point out that a clay-rich soil variety was added to a *tava* aggregate.

⁸ The main wall paintings techniques described by Ma et al., which also apply to the Nako temples, can be further found far east on the northern Silk Road caves like Kizil and Dunhuang; as masonry serves the solid rock of the caves covered by layers of earth and straw as well as animal hair. See Russell-Smith et al. 2009: 10f.

Looking at the calcite contents that are in a range between 4 and 8 %, a mixing ratio of *tua:tava* to a maximum of 1:5 seems reasonable. Due to the quartz content of 34 to 39 %, alkali feldspar 5 to 9 %, albite 14 to 29 % and layer silicates 21 to 33 % the *tava* variety of Tin Mokhbar (see tabs 1 and 2) is considered unlikely as a raw material for the preparation of the plasters. From the mineralogical point of view the *tava* variety of the temples construction site comes much closer to the plasters results.

Clay mineralogical analyses gave no evidence of any other raw materials, besides *tava* and *tua*, being used. The clay mineralogical composition with the main contents of illite/mica, the smaller amounts of kaolinite and chlorite and traces of smectite and vermiculite, correspond with the results measured for *tava* and *tua*.

In a rough plaster from the Lotsawa Lhakhang south wall traces of gypsum were found. Here, a contamination of building materials during processing seems to be likely. Fibre contents smaller than 2 mm were found between 0 and 0.6 %, fibres bigger than 2 mm ranged from 0.5 to 1.9 %. The fibres were identified mainly as a straw of brome and wild grasses, *Cerealia*, and in one sample from the Gyaphagpa additionally dung remains were assumed.⁹

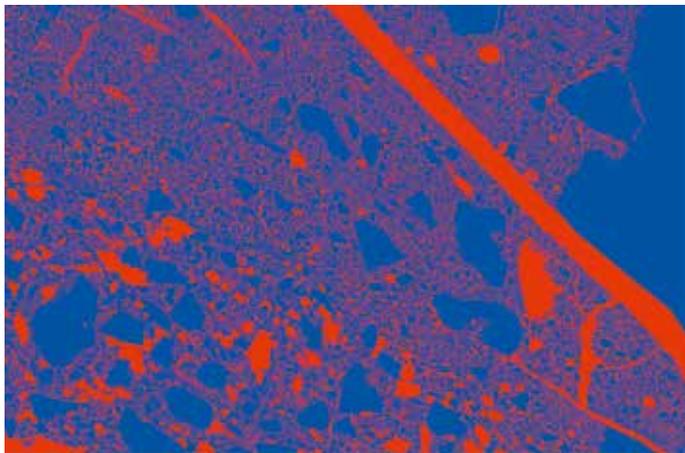


Fig. 198: Coarse plaster under the ESEM microscope, grains coloured blue, pores coloured red.

Densities were measured from 2.68 to 2.74 g/cm³, bulk densities between 1.7 and 1.8 g/cm³; total porosities were thus in a relatively narrow range between 34 and 37 %. Due to micro-cracks in the material structure, these figures cannot be related to technology alone, but already indicate the damage potential. Under the microscope, voids, which occurred around single fibre components and ended up in cracks, could be discerned, noticeable were surface-parallel cracks and fissures in the fine fractions (fig. 198). The angular grain shapes and detrital aggregates found in the materials structure confirmed the use of *tava*.

Fine plasters serving as direct supports for the paintings were applied 0.1 to 1.2 cm thick. The lowest value was identified in the Lotsawa Lhakhang south wall. In a few places, like in the Lotsawa apse, a two-layered fine plaster was detected, most probably to achieve final evenness of the plastered walls. Exposed fine plaster surfaces were hardly found to be intact. Visually distinguishable from the "coarse plaster" was the "fine plaster" not because of a finer grain structure, but due to the vegetable fibres added, which were about 1 cm long and only about 1 mm thin. Following the usual temple plastering techniques (Eltgen 2001: 383), fine plaster surfaces might have been finely ground with stones and got burnished to provide a truly perfect support for the ground and painting layers.¹⁰ The fine plaster samples of the three temples, Lotsawa, Gyaphagpa and Karchung Lhakhang, were granulometrically almost identical. There were gravel contents of 0.2 to 3.6 %, sand from 41.2 to 49.2 %, silt from 38.9 to 42.6 %, and clay contents from 11.2 to 16.4 %. Almost no gravel fractions suggest that the fine plaster components were sieved through a 2 mm mesh. Although these are finer grained than coarse plasters, however, they mainly present lower clay contents than the latter.

⁹ Heller refers to Knud Larsen and Amund Sinding-Larsen and describes "Cow dung, clay and a considerable amount of vegetal fibre constitutes the first layer of the wall preparation for mural painting in traditional Tibetan architecture." (Heller 2007: 140).

¹⁰ Wu describes the process in detail: "When the surface layer becomes half dried up, use hard and smooth cobbles to rub and grind the surface repeatedly till it becomes very hard and uniformly smooth and exquisitely shing." (Wu 1994: 380).

Quartz contents were measured from 36 to 44 %, alkali feldspar from 5 to 10 %, albites of 14 to 27 %, phyllosilicates from 14 to 27 %, calcites 4 to 8 %, and dolomite just in one sample with 1 %. Hence, the mixing ratio of *tua* and *tava* could be at a 1:5 ratio maximum. Clay mineralogically, fine plaster samples matched with *tava*, *tua* and coarse plasters, thus excluding another soil to be used.

Fibres less than 2 mm were at 1.2 to 2.8 %, fibre contents bigger than 2 mm ranged from 0.1 to 0.8 %. In the fine plasters from the Lotsawa Lhakhang as well as the Gyaphagpa and Karchung Lhakhang, straw of grasses, in some cases possibly from wild grasses were detected, in one sample from the Lotsawa south wall a piece of a cypress plant and presumably remnants of dung, and in the Gyaphagpa plaster again dung was identified. In the fine plaster sample from the Lotsawa north wall animal glue could be analysed. Here, the question arises whether the glue was added during the mortar preparation, or—more likely—if the plaster surface was coated with the glue as a primer for the ground, or if the ground was applied and its binding media got soaked into the support.¹¹ In two other samples from the Lotsawa apse and the Gyaphagpa polysaccharides were found. As the exact composition could not be verified, the further interpretation is difficult. Traces of gypsum were measured in three plasters from the Lotsawa south wall and apse, and from the Karchung. While a contamination from the ground seems likely, an intended addition cannot be excluded.

Densities were measured from 2.63 to 2.83 g/cm³, bulk densities between 1.3 and 1.65 %, total porosities were therefore in a range from 39 to 51 %. Similar to coarse plasters, these figures demonstrate already the damage progress of the materials. As microscopically, parallel to the surface as well as non-oriented cracks in the grain structure were recognizable (fig. 199).

To summarise: In preparation and application of the two-coat plaster system in the Lotsawa Lhakhang, the Gyaphagpa and Karchung Lhakhang are comparable and quite similar to each other. A building tradition, if local or employed from a workshop travelling from site to site, for those three temples appears to be remarkably uniform and does not feature any major material and technological alterations.

EXCEPTION: LHAKHANG GONGMA PLASTERS

Considering the coarse, and more evident, the fine plasters, the Lhakhang Gongma (*Lhakhang gong ma*) poses a material exception to the three other temples.

With remarkable gravel contents of 18.9 % the coarse plaster in the Lhakhang Gongma granulometrically corresponds with joint mortars. The content of coarse plaster fibres bigger than 2 mm is 0.4 % and so the lowest of all plasters measured. However, from its mineralogical and clay mineralogical composition it differs not considerably from the other coarse plasters and indicates as well a *tua-tava* mixture, presumably less than 1:5.

In one damage area of the Lhakhang Gongma south wall, the very fine, extremely smooth and resistant surface texture of the fine plaster was noted. On some spots there was a significant damage pattern visible, namely multiple delaminations within the only 0.2 to 1.3 cm thick plaster coat, which had previously given rise to the assumption that the finish coat was applied in very many single layers.

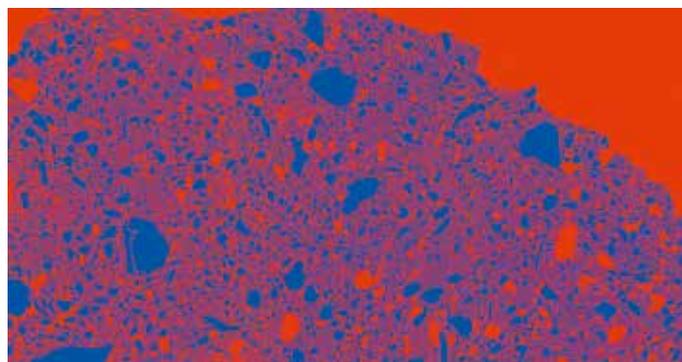


Fig. 199: Fine plaster under the ESEM microscope, grains coloured blue, pores coloured red.

¹¹ Wu notes that after smoothing the plasters surface (see note 11) the wall gets brushed with different sorts of glues and then a religious ceremony is held (Wu 1994: 380).

The fine plaster of the Lhakhang Gongma contains 0.8 % gravel, 59.8 % sand, 27.9 % silt and 11.5 % clay. Quartz contents were at 38 %, alkali feldspar at 3 %, albite 12 %, phyllosilicates 21 %, calcite 24 %, and dolomite 3 %. The loss on ignition measured with 14.7 % corresponds with the high calcite contents. Fibres smaller than 2 mm were at 0.1 % and fibres bigger than 2 mm at 0 %. Also here, polysaccharides could be detected.

To precis how the Lhakhang Gongma fine plaster differs from those investigated in the other temples: It features a slightly lighter colour and it has a coarser grain structure that does not show the characteristic increase between the coarse silt and fine sand fractions; further it shows a high amount of calcite, rounded calcite grains and does not contain vegetal fibres. The rounded calcite grain shapes signify that another, in the temples building materials yet unidentified soil and in the local building tradition no longer existent raw material, namely a river sand rich in calcite was used, which could have been gained from the Spiti Valley. The fine plaster in the Lhakhang Gongma was the only one (analysed) temple building material produced from different raw materials and by following its own recipe, which avoids the common *tua-tava* mixture and the addition of fibres or dung.

Here, the dissimilarity of the coarse and, even more of the fine plaster of the first construction and decoration phase in the Lhakhang Gongma compared to the other temples should be noted—as a building material and technological detail of the history of the Nako Gompa.

WHERE DID WE BEGIN: LEARNING FROM THE MATERIAL

Before the context of Nako's modern building activities, learning from *earthen* materials goes beyond the research foci of conservators, scholars, and scientists. It directs to the people who actually need and build houses or let them build.

The traditional building heritage employing stone/earth/wood encounters difficulties in being able to suit the ongoing changes and developments in the villagers' everyday lives (fig. 200). The so-called "traditional" buildings are not communicating the attitude of today's mod-

Fig. 200: Village architecture.



ern lifestyle and progress, but—quite contrary—are questioning recent opening and general modernisation by their intrinsic means, regionalism, manufacturing skills, and traceable authenticity.

By now, new building materials like concrete, bricks, metals, and plastics have become promoted, favoured, and also fashionable in the village. At this point the question of materiality is not just a question of qualities and material parameters, of skills and techniques, of history and tradition, but one of image and character, of economics and availabilities, of consumer needs and promises. It is all too visible that also Nako has become part of a global development.

When looking at the village and noting that earth is transforming into the 11th/12th temples building structure as well as still becoming a nowadays vernacular housing roof Sekler's words become all to real (Sekler 2001). Authenticity is something that can be learnt "on the foot of the Himalaya", authenticity in terms of a work being and existing out of its own means, revealing the authorship of the creating, tracing the origin of the matter in the material, showing the transformation of nature into culture, and being embedded into men's lives.

Acknowledgement

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I thank my supervisor Univ.-Prof. Dr. Gabriela Krist, my co-supervisor Prof. Dr. Johannes Weber, as well as Prof. M.V. Nair, Dr. U.S. Lal and DI Tatjana Bayerová for their valuable input and support during my dissertation work. Further, I thank all institutions and persons involved in the FWF research project—without them the ambitious programme could not have been realized.



3.3. Insights into the Painting Materials and Techniques of the Original Interior Decoration

Tatjana Bayerová

INTRODUCTION

The fascinating world of Tibetan paintings and sculptures has been attracting the attention of various scholars for quite a long time. But it was only during the past two decades when the interest has been focused also to the material aspect of these art works on a larger scale (introduction to the philosophy of the material investigation—see the article “Learning from the material” by Marie Gruber in this issue). Since the Nako temple complex witnessed a gradual development of art within the past 800 years, it offered a unique chance to study and compare the artistic techniques of the early and later Western Tibetan Buddhism with each other. Furthermore, a complex research of painting techniques provides an excellent opportunity of the comparative assessment with the techniques from other temples in the region and with the neighbouring ancient sites on the Silk Road. The information gained from the study enables to enhance the knowledge and expertise in the field of Western Himalayan art of conservation scientists, painting and sculpture conservators-restorers, art historians, architects and other professionals. And last but not least, the understanding of the painting techniques and the mechanisms of decay were essential for the development of an appropriate conservation strategy.

Fig. 201: Part of the mandala painting on the south wall in the Upper temple.

PRIMARY AND SECONDARY LITERATURE

There are only limited ancient literature sources dealing with the painting techniques and materials from South/Central Asia, since artisans and sculptors transmitted their knowledge and skills to pupils orally and through an apprenticeship process. Furthermore, paintings in Buddhist monasteries belong to the religious art that serves the purpose of religion, and the way of paintings' execution and their authors were neglected.

The earliest written sources of information about the works of art are the Indian *Citrasūtra* texts. These “treatises on painting”, written in Sanskrit in the form of sutras (Skt. *sūtras*, aphorisms), concern with the practice, technical and aesthetical aspects of paintings. Although the general accepted meaning of the word *citra* is painting, in some context it can also denote sketch, delineation or sculpture¹ (Nardi 2006: 1,166). Despite these texts cannot be considered complete technical manuals, they provide valuable basic knowledge about Indian painting and its development, and create an important part of the Sanskrit scientific literature. It can be assumed that the texts do not belong either to a specific period or to a particular place. The information summarised here certainly existed in oral form before they were transformed into written manuscripts. Furthermore, the knowledge was continuously transmitted to later generations in both oral and written form and the written texts were

1 The word *citra* can have much wider meaning corresponding to visual representation (Nardi 2006: 22).

spread out all over India and neighbouring countries as well. Therefore, the results of the study of the Nako's paintings were briefly compared with the following ancient texts: the *Cītralakṣaṇa of Nagnajit*, the *Cītrasūtra of the Viṣṇudharmottara Purāṇa*, the *Samarāṅgana Sūtrādhara*, the *Abhilaṣitārthacintāmaṇi (Mānasollasā)* or the *Phyogs las rnam rgyal* and the *Śīlparatna*.

The *Cītralakṣaṇa of Nagnajit* ("An early document of Indian art"), dated probably to c. 450–650, consists of three chapters; the third chapter deals with measurements and essential characteristics of figures (Goswamy and Dahmen-Dallapiccola 1976: 11).

The most probable dating of the *Viṣṇudharmottara Purāṇa* is c. 450–650. This encyclopaedic work of an unknown author is believed to be of Kashmiri origin (Mukherji 2001). The chapters 35–43 of the third part form a section devoted to the art of painting that is called *Cītrasūtra*. The *Cītrasūtra of the Viṣṇudharmottara Purāṇa* is probably the world's oldest known treatise on art².

The *Samarāṅgana Sūtrādhara* is another voluminous work on classical Indian architecture from the first half of the 11th century, written by the Indian King Bhoja of Dhārā. The texts about painting, sculptural arts and iconography are included in chapters 71–82, where also the eight essential steps of the wall painting manufacturing are described (Nardi 2006: 26; Chakrabarti 1980: 76).

The *Abhilaṣitārthacintāmaṇi* ("The magical stone that fulfils desires") also called *Mānasollasā* ("The refresher of the mind"),³ is ascribed to King Somesvara III from the first half of the 12th century. The third part of this work is dedicated to art and describes in detail the painting technology and materials used.

A 15th-century account *Phyogs las rnam rgyal* written by Bo-dong Pan-chen is a valuable source of the colour theory concerning the colour composition system (Jackson and Jackson 2006: 93, 195; Onoda 2002).

The late 16th century *Śīlparatna* of Travancore origin, written by Śrī Kumarā, seems to be largely based on the earlier manuscripts (Coomaraswamy 1934: 59; Dube 1991: 96). The last section of the first part, the 46th chapter called *Cītralakṣaṇa*⁴, is dedicated to art. It provides a thorough account of the technical and compositional aspects of Indian painting.

Current literature offers three invaluable works focused on the Tibetan painting techniques and materials: Jackson's books "A History of Tibetan Painting. The Great Tibetan Painters and Their Traditions" (Jackson 1996) and "Tibetan Thangka Painting: Methods & Materials" (Jackson and Jackson 2006), and a recent account written by Wu Junkui "The Manufactural Steps and Method of the Buddhist Monastery Frescoes in Tibet" (Wu 1994).

GENERAL TERMS

According to the ancient literature, Indian wall paintings were not painted in *fresco* but in a *secco* technique⁵ (Coomaraswamy 1934: 60; Lo Bue 2006: 90). Their execution was a sophisticated process including eight essential steps as it is described in the *Samarāṅgana Sūtrādhara* (Nardi 2006: 26; Chakrabarti 1980: 76; Wu 1994): application of plaster, preparation of ground, first sketching, brush drawing, colour application, shading, outlining and finishing details. The

2 In the following text only the name *Cītrasūtra* will be used.

3 In the following text only the name *Abhilaṣitārthacintāmaṇi* will be used.

4 In the following text only the name *Cītralakṣaṇa* will be used.

5 *Secco* painting is executed on dried plaster, as distinguished from *fresco* painting that is on wet plaster.

recent Wu Junkui's account includes two more steps—suppressing and polishing of gold and glue-coating application (Wu 1994: 385).

The surface on which the paint is applied is known as the *support* (fig. 202); in case of wall paintings it is the masonry covered with plaster. The plaster application is the first of the eight steps of the wall painting manufacturing mentioned in the *Samarāṅgana Sūtrādhara* (Nardi 2006: 26; Chakrabarti 1980: 76). Since the composition, structure and properties of all plasters and other earthen materials are in detail described in Gruber's article "Learning from the material" in this book, only the next steps of the wall painting manufacture will be described in the following text.

The support is followed by a preparation layer called *ground* (see fig. 202), onto which *paint layers* are applied. The ground evens roughness of the support in order to achieve the right properties of painting, gilding or other decoration, and it acts as a reflective surface under the paint. The dried ground is usually treated with a *size*, an organic coating applied against soaking of binding media from paint layers into the ground and thus preventing from the paint's weakening.

Each ground and paint layer is composed of two essential components: colouring materials—*pigments* and/or *dyes*—and *binding media* (see fig. 202).

Binding medium is a liquid able to form a film that makes it adhere to the surface underneath and binds grains of dyes and pigments together. Binding medium determines the painting technique: oil painting employs oil as a binder, in tempera technique a binder dilutable with water is used (such as egg, glue or gum), and so forth.

Both pigments and dyes are responsible for the colour of paint. While pigments are fine powders of inorganic or organic nature that are not soluble in binding medium and provide opacity of paint by scattering or absorbing visible light, dyes are organic substances that are soluble in binder and have no covering power. Dyes are therefore used to colour *glazes*—thin transparent or semi-transparent layers that are rich in binding medium and are coloured or tinted with dyes. Glazes are applied upon the dried paint layers to modify the final appearance of paint.

Finally, the paint may be finished with a thin, transparent, not pigmented *coating* that has both optical as well as protective functions. Based on its composition, the coating imparts varying degree of gloss to paintings and protects them from dirt, grease, moisture, abrasion, etc.

The technical examination⁶ followed the pilot study of Bogin (2005) and addressed all painted surfaces in the Sacred Compound at Nako including wall paintings, polychromy of sculptures, painted wooden ceiling panels and architectural wooden elements. The study was

6 The technical study was undertaken in frame of the research project funded by the Austrian Science Fund (FWF project no. L335-N19, 2007-2011, project leader Prof. Gabriela Krist). The examination was based on both on-site inspection and laboratory work on taken samples. Non-invasive techniques used *in situ* included imaging in ultraviolet, visible and infrared light with conventional digital photography. Subsequently, a wide range of analytical techniques was used to obtain a comprehensive picture of the composition and structure of paintings. The minute samples were mounted into the synthetic resin to obtain cross-sections of layers. The investigations were performed by non-destructive optical and elemental methods, followed by micro-destructive elemental, molecular and crystallographic analyses of both cross-sections and unmounted fragments. The following analytical methods were used: optical microscopy, scanning electron microscopy with energy dispersive spectroscopy, micro Raman spectroscopy, X-ray fluorescence, X-ray diffraction, spot tests, staining tests, gas chromatography-mass spectrometry, high-performance liquid chromatography and liquid chromatography-tandem mass spectrometry.

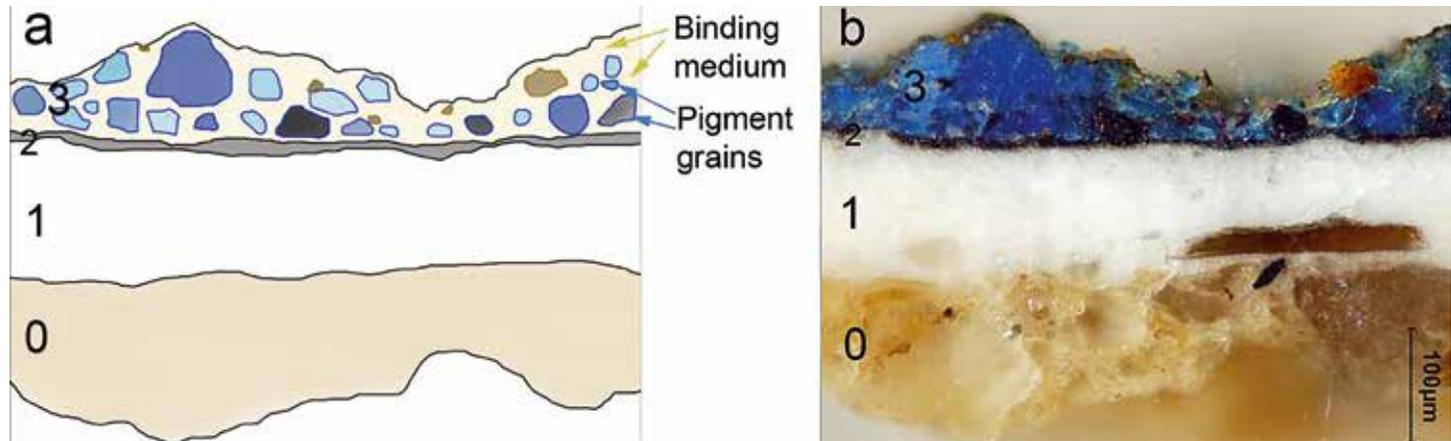


Fig. 202: Cross-section showing the build-up or stratigraphy of layers: support (0), ground (1), underlayer (2), paint-layer (3); a) illustration; b) photomicrograph of a real sample taken from the blue background in the Upper Temple.

focused on the documentation and identification of the painting palette and technology including the determination of stratigraphy or build-up of layers, as well as the material characterisation of single components of grounds and paint layers.

WALL PAINTINGS

The wall paintings once covered the entire walls from floor to ceiling in all four temples. The best preserved original murals are on the south and north walls of the Translator's Temple (Lotsawa Lhakhang), as well as on all four walls in the Upper Temple (Lhakhang Gongma), where the murals show a considerably higher degree of damage. In the Translator's Temple, there is still a part of the original painting visible also in the lower part of the west wall under the statue of Prajñāpāramitā as well as on some parts of the west wall in the apse. Most of the original murals in the apse are hidden by later paintings. Regarding the east wall, due to its replacement sometimes in the past, only fragments of original murals have remained on this wall down to the left of the entrance.

In both smaller temples, the White Temple (Karchung Lhakhang) and the Gyaphagpa Lhakhang, only later overpaintings are visible today. Nevertheless, the study proved the presence of original murals under the current ones in both temples.

TRANSLATOR'S TEMPLE

The South and North Wall

Original paintings of astonishingly high quality and magnificence on both south and north walls are fabulously painted in a vivid colourful appearance. From among all colours, intensive blue and red with gilded accents predominate. The strong intensity of blues is particularly apparent in places with the exposed paint surface, resulting from the water leakage; otherwise the colour is trapped behind 800 years deposits of dust, smoke and grease from butter lamps. The extensive use of raised decorative elements, embellished with gold and metal of silver colour, is undoubtedly the most significant and eye-catching feature of both the south and north walls decoration. Despite both paintings are marked by natural deterioration (see the contribution by Krist and Schmidt), their superior condition provides another good reason for asking how these murals were painted.

Even though both murals originate probably from the first decades of the 12th century at the earliest, the iconographic and stylistic differences between them suggest their attribution to different workshops (Luczanits 2003b: 49, 2004: 84). The comparison of painting materials employed on both walls was, therefore, of special interest. However, analyses have shown that there are no principal differences in the painting materials used besides the presence of the high-relief elements on the south wall. Findings from both walls are therefore partly presented together.

GROUND

The application of ground is the second step of the wall painting manufacture mentioned in the *Samarāṅgana Sūtrādhara* (Nardi 2006: 26; Chakrabarti 1980: 76). The most common way of the ground preparation was to use a mixture of the easily available white earth pigment mixed with a binding medium (Jackson and Jackson 2006: 20).

The white ground on both the south and north walls was employed on the top of the burnished fine plaster, which was, at least locally, treated with a diluted animal glue. The ground is composed of animal glue and of inorganic filler that was identified as gypsum.

Gypsum is a common soft mineral of a sedimentary nature, chemically the hydrated crystalline form of calcium sulphate $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$. Both areas, today's Himachal Pradesh and Tibet, are blessed with mineral wealth including gypsum. There are many important gypsum resources registered in Tibet (China Mining Association 2001) and in the Kinnaur district (Government of India 2012: 86). Since gypsum deposits are quite abundant in the Himalayan region, there are probably existing numerous unregistered local resources of not commercial interest. One such a deposit occurs at Kirsi, a place situated 7.5 km far away from Nako down the road to the Spiti River. This opencast source is still in use by local inhabitants and it is possible that gypsum from Kirsi was used for the Nako murals.

The use of gypsum as the filler of grounds was detected in various ancient Western Himalayan paintings, e.g. in the Sumtsek, Alchi (Goepper and Poncar 1996: 273), Sumda Chun Monastery (Priego Rendo 2009: 26), Chigtan (Bayerová and Kozicz forthcoming: 26), Saspotse Complex (Bayerová 2009), Matho Stupa (Bayerová 2013), but also in wall paintings from Central and South Asia—see the table (tab. 3) with the overview of painting techniques and materials.

The second principal component of the ground is its binding medium that was identified as a collagen-based binder—animal glue. This finding is in agreement with the *Abhilaṣitārthacintāmaṇi* describing the binder to be prepared from the fresh buffalo skin (Coomaraswamy 1934: 61; Chakrabarti 1980: 34). According to this source, as well as to the recent account of Junkui Wu (1994: 382), the same type of glue was used for the ground preparation, for sizing and as a binder for paint. Assuming that this rule was practiced also in case of the Translator's Temple paintings, where the binder of the paint was more accurately identified as bovine (or a genetically close relative) glue, then the glue used for the ground preparation was very probably also bovine glue.

Unfortunately, there is only little information published on the exact analysis of the ground binder from this region. The presence of animal glue is reported in the white kaolin-based ground of murals in the Chambā in Basgo, Ladakh (Dhar 2010). In the gypsum ground of murals from the Sumtsek, Alchi, the further not specified animal glue was used in a mixture with starch (Goepper and Poncar 1996: 274).

While the treatises *Citrasūtra* (Mukherji 2001: 131) and *Abhilaṣitārthacintāmaṇi* (Chakrabarti 1980: 33) only briefly describe the ground preparation, the more detailed description is given in the *Samarāṅgana Sūtrādhara* (Chakrabarti 1980: 33) and *Cītralakṣaṇa* (Bhattacharya 1974: 42). The process of ground application is called *priming* in these texts, and it is described as a smearing the undefined white pigment, probably kaolin, mixed with glue from the fresh buffalo skin.

PREPARATION TECHNIQUES



Fig. 203: Incised compass lines in the upper part of the north wall in the Upper Temple.

Fig. 204: Colour notations in the central part of the south wall in the Translator's Temple.

a) *sa ra*, related to *ser po*—yellow; b) *cha (ya?) ra*—the notation is not related to any colour; c) perhaps an intentional obliteration of the colour notation, maybe a pentimento in the colour choice.



Before application of colours, a planned design of painting was laid out according to the theory of the proportions and iconometric and iconographic rules dictated by religious principles; guidelines for body proportions and measures were formulated already in one of the earliest Indian treatises—the *Cītralakṣaṇa of Nagnajit*. After the planning of the painting framework, the main lines and diagonals of orientation were laid down—see Figure 203 (Jackson and Jackson 2006: 45; Wu 1994: 381) followed by the first sketching and subsequent brush drawing; the sketching and drawing correspond to the second and third step of the wall painting procedure described in the *Samarāṅgana Sūtrādhara* (Nardi 2006: 26; Chakrabarti 1980: 76).

The placement of appropriate colours was then indicated by colour codes—symbols that correspond to specific colours—see

Figure 203 (Jackson and Jackson 2006: 93; Bellucci et al. 2011: 121).

Although the use of colour codes is well known especially in relation to thangka paintings, there are findings proving the presence of colour notations also in murals (Nicolaescu and Alexander 2008: 63; Skedzuhn et al. forthcoming[a]: 5).

The preparation techniques visible on the south wall are the incised compass lines followed by the red underdrawing executed with red ochre, red ochre-based dashed lines and colour notations. There were only two codes in form of Tibetan letters revealed: *sa ra*, related to *ser po*—yellow, and *cha (ya?) ra*—the notation that is not related to any colour⁷. Unfortunately, besides red dashed lines and red brush underdrawing, any other sketching techniques or colour notations were not found on the north wall.

⁷ Seccaroni, C. and Polichetti, M. A., National Agency for New Technologies, Energy and Sustainable Economic Development, Rome and The 'Giuseppe Tucci' National Museum of Oriental Art, Rome, personal communication 2009.

PAINT LAYERS

High quality pigments, transparent washes using organic colourants, low-relief work with metal applications and on the south wall also the high-relief elements are characteristic for these paintings.

Paint layers were applied in *secco* technique over the dry and burnished gypsum ground. The paint consists of usually two-three thin paint layers, in the shading of the multi-coloured nimbuses and mandorlas up to four very thin layers are superimposed. The only paint layer applied as one thick coat is in the blue background areas. According to the literature on thangka painting techniques, the way of painting of the Translator's Temple murals resembles to the Eastern Tibetan style, where a colour is applied in thin layers at least three times, while in the style of Central Tibet there is one thicker layer applied (Shaftel 1986: 100; Nicolaescu and Alexander 2008: 68).

Similarly to the ground, the paint layers consist of the binding medium and colouring materials—pigments and/or dyes. Various painted areas of different hue are identical in the pigment composition and even in grain size; the only difference seems to be the ratio between the amount of pigment or dye and the amount of binder used. Preparation of many colours from one single pigment is one of the fundamental features of Tibetan painting (Jackson 1996: 50) and this practice is still popular among the Tibetan artists until today (Wu 1994). According to a local painter, it is possible to prepare up to 40 different shades from one single pigment⁸.

The colour application and shading are noticed in the *Samarāṅgana Sūtrādhara* as the fifth and sixth step of the mural painting execution (Nardi 2006: 26; Chakrabarti, 1980: 76).

BINDING MEDIUM

The analysis of binding medium presented a challenge, since there are various types of binders noticed in the ancient treatises. The *Citrasūtra* suggests for all colours to use the binder of plant origin—an exudate of a shrub *Sindūra*⁹ (Mukherji 2001: 139). The *Abhilaṣitārthacintāmaṇi* recommends the “adamantine medium”—an animal glue prepared from fresh buffalo skin (Coomaraswamy 1934: 60) and the *Citralakṣaṇa* proposes the same “adamantine medium” to be “mixed up judiciously with different colours in lieu of gum-exudes” (Bhattacharya 1974: 56). From the last source it is obvious that in one painting both binding media could be used. Such interpretation would be supported by the information of Skedzuhn that a binder of plant origin was used for the peaceful deities and animal glue for the wrathful deities (Skedzuhn et al. forthcoming[a]: 6). Anyhow, the presence of two different binders in the Translator's Temple mural paintings was not experimentally proved. The binding medium was unambiguously identified as bovine (or a genetically close relative) glue, thus determining the painting technique as a glue-bound tempera. The glue used in Nako paintings had to be of an outstanding quality and it is obviously one of the reasons why these paintings are in such a good condition after more than 800 years.

The animal glue binder was detected in the Sumda Chun Monastery (Priego Rendo 2009: 35) and in the Sumtsek, Alchi, where the glue is mixed with carbohydrates—either starch,

8 Bijal S., local painter at Nako, personal communication 2007.

9 According to the Pandanus Database of Plants (Available at: <<http://iu.ff.cuni.cz>>) the *Sindūra* tree is translated into the Hindi language as *dhava*. *Dhava* corresponds either to the tree *Grislea Tomentosa* L. or *Anogeissus latifolia* L. From the latter one the ghatti gum is obtained.

plant gum or sap (Goepfer and Poncar 1996: 273). The animal glue is said to be the binder of paint layers also in the Chambā Lhakhang in Basgo (Dhar 2010: 291).

COLOURING MATERIALS

The preparation of colours in Tibet has been directed by theoretical principles summarised in the “colour theories”. There have been many of them throughout the history of Tibetan art and all of them have one thing in common: they distinguish between basic or main colours and “mixed” or “compounded” colours derived from the main ones (Jackson and Jackson 2006: 91; Wu 1994: 381). While there are three primary colours in the Western colour concept—yellow, red and blue, in the oldest manuscript *Citrasūtra* there are five main colours mentioned—white, yellow, red, blue and black. According to this treatise “by combining the primary colour using one’s imagination and discretion one could make hundred, even thousand-fold colours” (Mukherji 2001: 135). Although the mid-15th century account written by the Tibetan scholar Bodong Penchen (Jackson and Jackson 2006: 91) and the *Citralakṣaṇa* also state five basic colours (Bhattacharya 1974: 44), the *Abhilaṣītārthacintāmaṇi* mentions only four basic colours—white, red, yellow and black (Coomaraswamy 1934: 63; Chakrabarti 1980: 44), and much later accounts from the 19th century notice even eight main colours (Jackson and Jackson 2006: 91). However, as it was already written in the previous text, the making many colours from one pigment is a typical Tibetan tradition (Jackson 1996: 49).

All colours in the Nako paintings were achieved using various earthen and mineral pigments—natural and synthetic, and organic dyes of both plant and animal origin as follows: azurite, indigo, cinnabar, vermilion, red earth pigment, lac, orpiment, gamboge, gypsum, calcium carbonate and lamp black.

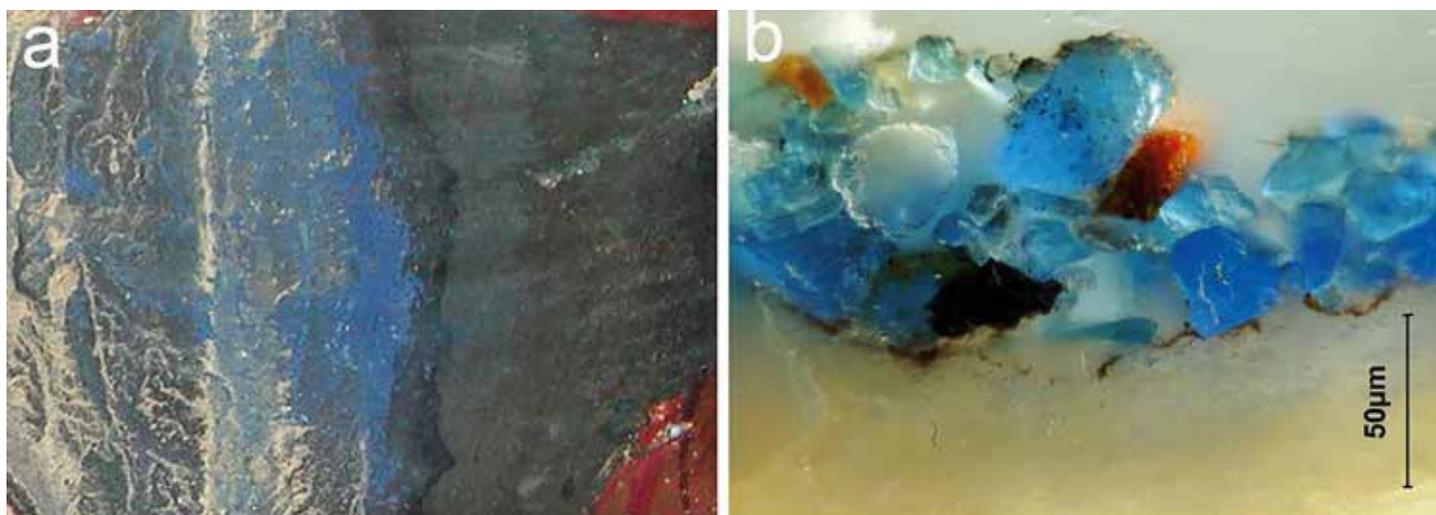
The overview of the colourants found at Nako is provided in the table (tab. 3) and their detailed description is in the following text.

Azurite

Azurite is a natural blue hydrated copper carbonate $2\text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$. It is derived from a secondary mineral azurite, which is found in the weathered zones of copper ore deposits, frequently associated with other copper ores, mainly with the green malachite.

The colour of pigment varies from good blue of the largest particles up to pale blue of the small ones. The resulting shade and intensity of azurite paint depends in general on several main factors: the type of binder, thickness of layer, size of grains, evenness of pigment particle size, presence of impurities and the colour of the layer beneath the azurite, respectively.

In the Translator’s Temple murals azurite was used for painting of backgrounds, horizontal bands, multicoloured nimbuses and mandorlas, dark-blue bodies, various decorative motifs and a little pigment was added also to other colours to modify their resulting hue. In the extensively blue backgrounds in the lower part of the walls, the coarsely ground azurite with the grain size up to 50 μm was applied as a single layer either directly over the white ground or over the thin layer of the fine grained azurite. In the upper part of the south wall, where the surface deposits were washed away due to water infiltration, the background is of even deeper blue colour of vibrant intensity resembling the hue of the natural ultramarine. The vivid appearance of these particular areas clearly demonstrates the shifting of the hue into more purple shade due to the presence of on purpose added hematite grains as well as the strong dependence of the final blue colour on the evenness of the azurite’s particle size and



on the presence of the dark underpaint as well (fig. 205). However, it is very likely that besides the above described ways of the use, azurite was employed also in other combinations, since “one single pigment can create hundred different types of blue, depending on the technique of each master and their experience” (Mineral Pigments 2009)¹⁰.

The dark underpaint was detected only in the upper part of south wall. In this context it is worth noting that roughly at the same time when the wall paintings in the Translator's Temple were executed, the German monk Theophilus Presbyter compiled his text *Schedula diversarum artium* on medieval arts, recommending the green and blue paints should be underlaid with the dark underpaint called *veneda* (Brepohl 1999: 61, 64). It is evident that the use of the dark underpaint to achieve the desired dark and deep tone of the green and blue paints resulted from painters' experiences independently in many parts of the world. The application of azurite over the grey or black carbon layer was confirmed in the murals in the Sumda Chun Monastery in Ladakh (Priego Rendo 2009: 30), the Red Maitreya Temple in Leh (Nicolaescu and Alexander 2008: 67), the Thubchen Lhakhang, Lo Manthang in Nepal (Mazzeo et al. 2004), but also in the decoration of clay sculptures in the Shuilu'an Buddhist Temple Complex in Shaanxi province dated to c. 618-907 (Blaensdorf and Tao 2010: 208). The presence of azurite was confirmed in a number of Himalayan wall paintings—see table 3.

Tibetan artists used mineral-based pigments that came from different regions in Tibet more than four thousand years ago. It is obvious that azurite belongs to the most important pigments on their palette (Jackson and Jackson 1976: 274; Lo Bue 2006: 92; Wu 1994: 381). In this context two interesting facts should be pointed out: firstly, that azurite was not listed in any of the previously mentioned ancient treatises; secondly, that the most popular painting style in Tibet until the 15th century was the Nepalese style (Rechung 1990: 57) and this painting style did not use azurite blue at all (Jackson 1996: 50).

Indigo

The dark blue indigo was used for painting of horizontal bands over the azurite to strengthen its blue colour, in the paint of lotus leaves, decorative motifs, multicoloured mandorlas and

Fig. 205: Intense blue background in the upper part of the south wall in the Translator's Temple; an area where the dark surface deposits are washed away. © Institute of Conservation, University of Applied Arts. a) photograph of the sampling place; b) cross-section of a sample shows the white gypsum ground, very thin black underpaint and blue paint layer composed of a high quality azurite.

10 Bijal S., local painter at Nako, personal communication 2007.

nimbuses. The pigment played a crucial role in painting of green areas, where it was applied in various ways: either in a mixture with the yellow pigment, or in a mixture with a yellow organic colourant, or as a thin dark blue layer superimposed over the underlying yellow paint. The production of the green paint is described in detail in the text about the “green colour”.

Indigo is a vegetable dyestuff that has been used in Asia both as a dye and as a pigment since antiquity. Indigo is derived from the leaves of various indigo-producing plants and the principal source native to India has been the tropical shrub *Indigofera tinctoria* L.

Indigo has been widely used besides the thangka painting also in Tibetan wall paintings and it is still one of the chief pigments for Tibetans today. Due to its small particle size, indigo can be easily dispersed in aqueous binders and applied as very thin washes, thus suited for both shading and outlining. Although it is one of the most lightfast natural dyes, the lightfastness of the pigmentary indigo has a controversial reputation. Nevertheless, indigo found in the Translator’s Temple murals does not seem to show any evidence of fading or discolouration.

Indigo is one of the two blues, besides lapis lazuli, mentioned in the old manuscripts *Citrasūtra* and *Abhilaṣitārthacintāmaṇi* (Mukherji 2001: 137; Coomaraswamy 1934: 64), but it is not listed in the *Citrakakṣaṇa*. According to Chakrabarti, indigo has not been used in Indian mural paintings since it is considered unsuitable for murals (Chakrabarti 1980: 51). However, the results of the technical studies refute the inapplicability of indigo for murals, since it was identified in many Himalayan paintings as it is obvious from the table of the painting techniques and materials (tab. 3).

Cinnabar and Vermilion

Cinnabar and vermilion refer both to a brilliant fire red pigment, chemically mercuric sulphide HgS. While “cinnabar” is a name reserved for the pigment of natural origin derived from the mineral of the same name, “vermilion” refers to an artificially prepared pigment. Both forms were found in the Translator’s Temple murals. Cinnabar was used in preparation layer for metal applications, for painting of red backgrounds and coarsely crushed pigment was mixed with other minerals to create a mass of the low relief material. Vermilion was used in one of the superimposed layers of the mandorla painting, for the outlining and as a small admixture to tint other colours. According to the Nako’s local painter, a lot of colour hues can be prepared from cinnabar/vermilion by different extent of grinding and by changing of the ratio of the binding medium added¹¹.

The sublimed dry-process vermilion, the production of which was invented probably by Chinese, was in use already in the 2nd century (Jackson and Jackson 2006: 80; Winter 2008: 14) and the pigment derived from the mineral has been known since the ancient times. Cinnabar/vermilion have always belonged to the most important Tibetan pigments; they are mentioned in all ancient texts and were identified in numerous Himalayan wall paintings as it is shown in the table of painting techniques and materials (tab. 3).

Red Earth Pigment

Red earths or natural iron oxides are naturally occurring earth pigments that have been used from prehistoric times. The principle colouring agent of red earths is the mineral hematite,

¹¹ Bijal S., local painter at Nako, personal communication 2007.

chemically iron oxide Fe_2O_3 . Since earthen pigments contain many other minerals like kaolin, calcite, quartz and others, they vary enormously in composition, quality and colour (Helwig 2007: 60). Despite their deposits occur widely around the whole world, only the best-quality natural iron oxides with a high content of hematite are suitable for the artistic purposes. Red earth deposits are also abundant around Tibet, where iron oxide reds have been extensively used for the painting of the outside walls of buildings (Danba Rabden et al. 2003: 2). Despite their stability, durability, high tinting strength, low cost and availability (Schwertmann and Cornell 2008: 511)—in sum—properties that make them ideal for use on a large scale, red iron oxides never reached such popularity in Tibet like in the Western World, probably due to the insufficient brilliancy of the colour.

Since the particle size of red earths is very fine, the pigment can be employed in very thin layers and washes. In such a way the pigment was used to produce one of several thin paint layers superimposed to create the paint of the nimbuses. The red iron oxide was admixed to some azurite layers to improve the hue of the blue colour, or it was used for the setting out of the final sketch. The use of red ochre for the definitive underdrawing is in agreement with the traditional literature *Abhilaṣitārthacintāmaṇi* (Coomaraswamy 1934: 63) and *Citralakṣaṇa* (Bhattacharya 1974: 47). Very interesting was the detection of the red iron oxide of the sub-micron particle size mixed with gypsum in the light red-orange underpaint for the cinnabar/vermilion layers that was found also in the Upper and the White Temple. The enhancement of the final appearance of cinnabar/vermilion layers seems to be the most logical explanation for the employing of this underpaint. The application of the red earth underlayer for the more precious vermilion was in Europe recommended already by Theophilus (Brepohl 1999: 64) and such application was reported e.g. in medieval wall paintings in England (Howard 2003: 102) or Switzerland (Arnold et al. 1986: 198). In the Western Himalayan region the presence of a fine red ochre underpaint for vermilion layer was detected also in wall paintings in the Saspotse Complex in Ladakh (Bayerová 2009). It seems obvious that the use of red ochre underpaint for vermilion/cinnabar layer was, similarly to azurite, based on experiences of painters in various parts of world.

Despite red earth is not listed in the *Citrasūtra* and it is only briefly mentioned in the *Abhilaṣitārthacintāmaṇi* (Coomaraswamy 1934: 63), it was identified among pigments from various Himalayan murals (see tab. 3).

Lac

Lac refers to a violet-red water-soluble dye derived from a number of species of scale insects of a “shield-louse” type from a vast territory stretching from Pakistan to China. The most commonly cultivated species is an Indian lac insect *Kerria lacca* Kerr, the principle source of which has always been India.

Lac was extensively used in both the Translator’s Temple and the Upper Temple. It was used directly by dispersing the dyestuff into the diluted glue, without any dye’s precipitation on a substrate. The lac glazes were executed as very thin washes or as thicker paint layers with variable dye amount, and they were applied right over the white ground or over an underlying coloured layer. Lac was used for painting and shading of the multicoloured nimbuses, lotus flowers, decorative borders, flame circles, textile patterns and for the outlining. Further, it was used for shading of cinnabar/vermilion layers and in translucent glazes over the metal decoration.

Lac is a traditional Indian dye used for the dyeing of textiles and as a colouring material since antiquity. Despite some lac dye was imported to Tibet from India and China, Tibetans probably prepared most of the dye by themselves (Jackson and Jackson 2006: 113). Lac or lac juice is also listed among the colouring substances in all the ancient treatises—the *Citrasūtra* (Mukherji 2001: 137), the *Abhilaṣitārthacintāmaṇi* (Coomaraswamy 1934: 63, 78) and *Cītralakṣaṇa* (Bhattacharya 1974: 58).

The presence of a closer not identified red dye was recorded in murals from various sites in the Himalayan region as obvious from the table of painting techniques and materials (tab. 3).

Orpiment

The principle yellow of Tibetan artists has been orpiment, the golden-yellow pigment prepared from the natural mineral of the same name, chemically arsenic trisulphide, As_2S_3 . The pigment has been very popular due to its brilliant yellow colour sometimes with a glittery appearance, despite its toxicity, difficulties with grinding and dubious permanence.

In the Translator's Temple murals, orpiment was lavishly used in different ways: for painting of yellow areas and decorative patterns, for producing of the green colour, mixed with vermilion in orange underpainting for the body colour of deities, as a preparation layer for metal application and as a part of the low relief mass.

There have been reported numerous identifications of orpiment in wall paintings from the Himalayan region as well as from many sites along the Silk Road (see tab. 3).

The pigment is mentioned among the basic substances of mineral colours in the *Citrasūtra* (Mukherji 2001: 137) and *Abhilaṣitārthacintāmaṇi* (Coomaraswamy 1934: 63); the *Cītralakṣaṇa* gives a detailed description of the pigment preparation (Bhattacharya 1974: 45).

Gamboge

Gamboge is a yellow vegetal dye obtained from the latex of various trees of the genus *Garcinia*, family *Guttiferae*, indigenous to the South and Southeast Asia. Ten major species from about 180 are native to India. The exudate is obtained by tapping the bark and collecting the latex into hollow bamboo canes, where it hardens as brownish-yellow raw gamboge. Gamboge consists of 70-80% of the colour giving resin and 15-25% of water-soluble colourless

Fig. 206: Yellow area on the south wall in the Upper Temple painted with gamboge; the bottom portion of the painting is partially washed out. a) visible light; b) UV-light.



gum that facilitates the dispersion of gamboge in water (Winter 1997: 145; Salter 1869: 32).

The resulting colour of gamboge paint layers depends on the dye concentration and on the colour of the layer underneath and varies from transparent bright golden to orange brownish yellow. Mixed with the animal glue, gamboge was used in thin washes for painting of multicoloured mandorlas and nimbuses, for shading the orpiment layers, for tinting of white body colour, for painting of the yellow haloes and garments and for producing different shades of green mixed with indigo and orpiment (see fig. 206).

The difficult analytical procedure required for the gamboge identification could be one of the reasons why there are only a few occurrences of the dye in the Asian art supported by analytical results until now.

While the dye was identified in several artworks in Japan and China (Winter 1997: 144, 2008: 25), its positive detection within Central and South Asia seems to be limited to the Indian illustrated manuscripts (Winter 1997: 144). Despite gamboge belongs to important historical dyes used at least from the 8th century (Winter 2008: 25; Yamasaki 1954: 784) and, moreover, it is native to India, it is quite surprising that it is not mentioned either in the ancient treatises or in the current literature sources. But, is it really so?

Coomaraswamy in his *Abhilaṣitārthacintāmaṇi* translation of yellows refers to “a yellow (gamboge?) obtained from trees as well as the mineral yellow” (1934: 78). Bhattacharya describes the preparation of the *pītavarna-dhātu*, a yellow mineral born in mountains, which he considers to be orpiment and he also makes a note: “Coomaraswamy translates it as ‘yellow from trees (gamboge)’ for reasons not clear” (Bhattacharya 1974: 62). The same translation as that of Bhattacharya was overtaken also by Nardi in her critical re-examination of the painting concepts described in the *Citrasūtra* (Nardi 2006: 128). On the other hand, Chakrabarti thinks that the *pītavarna-dhātu* highly probably refers to yellow ochre, which, according to him, is the only yellow pigment that can be safely used in murals (Chakrabarti 1980: 52). So all these last three texts comment only the mineral pigment, while no attention is given to the first part of the Coomaraswamy’s translation of “a yellow (gamboge?) obtained from trees”. From this point of view it is interesting that gamboge is listed in a recent research article on pigments used for traditional mural paintings in Kerala, India, where gamboge is reported to be mixed with indigo to produce green colour (Mini 2010: 638). Considering that the manuscript *Abhilaṣitārthacintāmaṇi* originated from the Western Chalukya Empire, which is in the neighbourhood of Kerala, could not really be the translation of Coomaraswamy correct? Couldn’t it be that the original text referred to two different yellow colourants?

However, besides Nako, there has not been confirmed any other occurrence of gamboge in the Western Himalayan murals or in paintings from the surrounding regions. The identification of gamboge in the Nako wall paintings is therefore unique and contributes to increasing awareness of this up to now rarely detected dye in Asian wall paintings.

“Green Colour”

There was no green pigment found in the areas painted in green. The green colour was achieved by mixing of blue and yellow pigment or dye, and/or by superimposing blue, “mixed” green and yellow layers. Various combinations were found, each of them producing different colour hue: yellow orpiment layer over the indigo/gamboge layer, orpiment/some indigo layer over the indigo/orpiment/gamboge layer or the thin blue indigo over the yellow orpiment layer. In the warm green stripe of the multi-coloured mandorla three layers were su-

perimposed: the bottom green indigo/orpiment covered with thin indigo layer and with thin yellow gamboge layer on the top.

The detection of “mixed” greens is in agreement with the traditional techniques of Tibetan painting. Although the mineral green pigment malachite retains an important place on the palette of Tibetan painters today, it was not always the case. Malachite, similarly to azurite, was not listed in any of the ancient treatises mentioned in the previous text and its use in Tibet started around 15th century. By this time, Tibetans used “compounded” or “mixed” greens that belong to secondary colours (Jackson 1996: 50; Onoda 2002: 135). Among the list of secondary colours in the *Abhilaṣitārthacintāmaṇi*, the green colour is more specified as the result of mixing indigo with orpiment (Nardi 2006: 130; Chakrabarti 1980: 56). From the account of a Tibetan scholar Bodong Penchen (1376-1451) one can learn that green and yellowish green can be obtained by mixing of different portions of indigo, orpiment and white (Onoda 2002: 135).

While the combination of indigo with orpiment was obviously used throughout centuries, there is no evidence of mixing indigo with an organic dye in any of the historical texts. Finding of gamboge in the “mixed” greens is, from this point of view, very interesting. Even more surprising is the fact that in traditional mural paintings in Kerala the mixture of indigo with gamboge was used (Mini 2010: 638). The overview of sites where the “mixed” greens were identified is in the table of painting techniques and materials (tab. 3).

Gypsum

Gypsum is the only white pigment used in the paint layers. It was mixed with other pigments to modify their colour value, or it was used as a single layer in the multicoloured nimbuses, or tinted with gamboge it was used for painting of the body colour of the deities. Besides this, there are also white areas that are not painted at all and the exposed surface of the white gypsum ground serves as the white colour.

The finding of gypsum conforms to the traditional Tibetan way of the use of the most common available white pigment. Gypsum was identified as the only white pigment also in other Himalayan paintings as obvious from the overview in the table of painting techniques and materials (tab. 3).

Lamp black

Lamp black belongs to the carbon-based black pigments; its main constituent is an elemental amorphous carbon. Lamp black can be described as a condensed smoke of a sooting flame produced by burning of oils, fats, resins, resinous wood and other combustible substances.

In the paintings in the Translator’s Temple the pigment was used in mixture with gypsum either for the black underpaint for azurite or for the black body colour of deities. It was found also pure in the outline drawings or in the black underpaint under the relief material.

Black is one of the five basic colours listed in the *Citrasūtra* but this source does not specify the type of the black pigment (Mukherji 2001: 135). Lamp black occurs among the pigments listed in the *Abhilaṣitārthacintāmaṇi* (Coomaraswamy 1934: 63), and the *Citralakṣaṇa* also gives the instructions about the pigment preparation and purification (Bhattacharya 1974: 46). It seems obvious that lamp black has been used since early times and that Tibetans knew the very old process for producing soot and making ink from it (Jackson and Jackson 2006: 83). The presence of lamp black was confirmed in various Himalayan murals (see tab. 3)

OUTLINING

In Tibetan painting the outline-drawing is of the highest importance. It primarily serves to define objects from their surrounding and to indicate details. Its significance can be demonstrated also by the fact that all the ancient manuscripts mention this final part of the painting procedure, which corresponds to the step seven in the *Samarāṅgana Sūtrādhara* (Nardi 2006: 26; Chakrabarti 1980: 76). While both, the *Abhilaṣitārthacintāmaṇi* (Coomaraswamy 1934: 65) and the *Citrakṣaṇa* (Bhattacharya 1974: 55) recommend the final outlining in lamp black with a fine brush, the *Cītrasūtra* calls for "lines that are smooth, clear, heaving beautiful colour" (Mukherji 2001: 163).

The outline-drawing in both the south and north walls paintings matches the guidance of the *Cītrasūtra*. Instead of sharply contrasting black colour, the outlining is executed in very fine lines in different shades of red colour (vermilion and/or lac), beige, dark blue and black as appropriate (indigo, lamp black). The final result achieved is thus a soft and smooth transition between the depicted object and its surrounding.

FINAL COATING

One of the main questions before starting the conservation procedure was the presence of an eventual coating, since some areas appeared to be covered by a darkened varnish forming a hazy veil on the surface of painting and dimming the brilliance of the original colours.

Based on this study it can be concluded that there was a locally applied secondary animal-glue coating on the south wall painting sometimes in the past, but originally, there was no coating on the surface of the murals. This finding is in agreement with the ancient literature, which does not mention any use of the final coating. Moreover, the presence of coating was not found in any of the Himalayan murals studied up to now except the paintings in the Chambā Lhakhang (Maitreya Temple) at Basgo, Ladakh, where the presence of the protective shellac coating in selected areas is assumed (Dhar 2010: 290). It is, therefore, surprising that the recent account of Wu Junkui describes the application of the oxhide glue coating as the last step in order to protect the mural paintings (Wu 1994: 385) and that according to Tao and Yang, a layer based "on animal glue, egg white and *subo* water" was used to protect wall paintings in Tibet. The presence of such a layer was confirmed by the authors in the 16th century Tibetan murals from the Sangyesi Temple at the border of Central Asia and India (Tao et al. 2007: 108).

RAISED DECORATIVE ELEMENTS

There are two types of raised elements used in the Translator's Temple: low relieves that embellish both walls, and the high relief work, the presence of which is limited to the upper half of the south wall (figs 207, 208, 210).

While the low relieves decorate the jewellery and haloes of deities on the entire south wall, the relief elements employed for vajra-circles and for horizontal and vertical decorative strips and ornaments are made from the low relief in the bottom part and from the high relief in the upper part of the south wall. The simplest and most logical explanation for such arrangement is the final optical effect; in case the low relief would be used in the upper half of the wall, the three-dimensional effect would cease when looking from the floor to the height of c. 5 m.

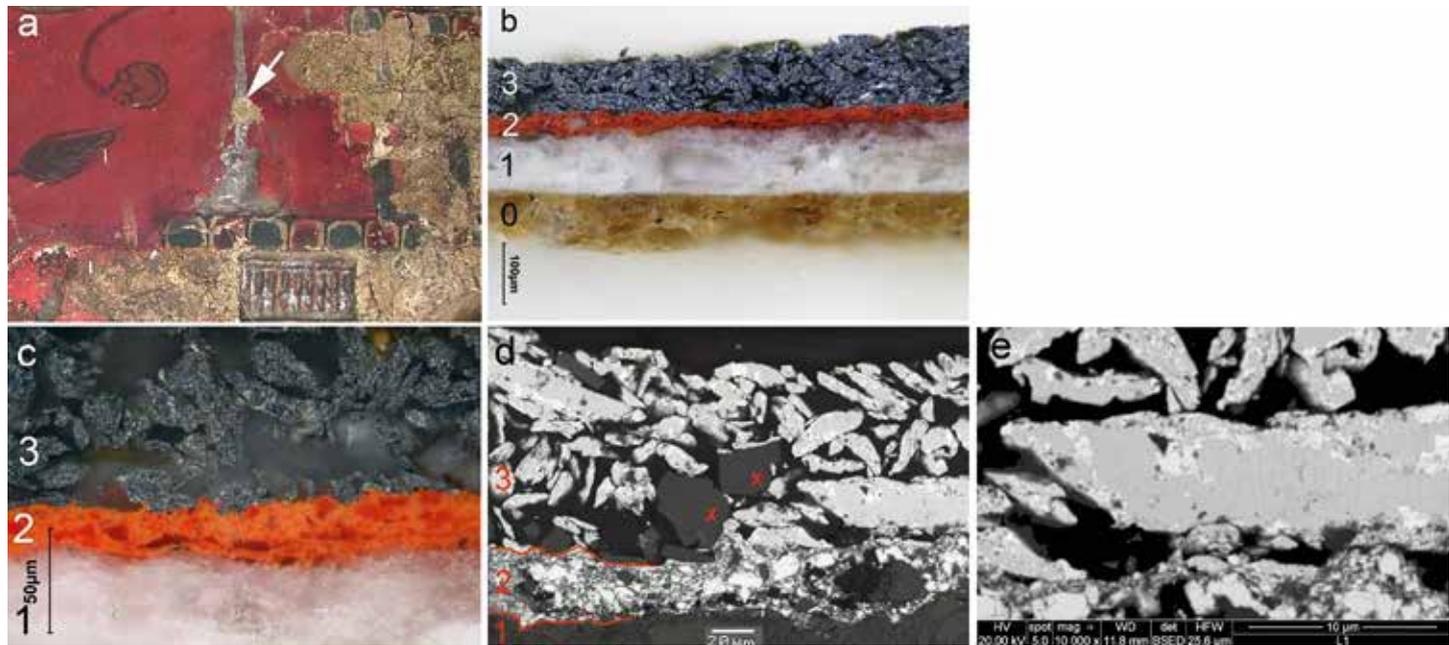


Fig. 207: High relief decorated with lead-tin alloy in the upper part of the south wall in the Translator's Temple

a) photograph of the sampling place; b) cross-section of a sample showing the earthen relief mass (0), white gypsum ground (1), red cinnabar underlayer (2) and lead-tin-alloy powder on the top (3); c) cross-section—detail of the upper layers; d) backscatter SEM micrograph showing the upper layers; grains with a cross mark the silica grains from the grinding of the alloy; e) backscatter SEM micrograph of the discrete alloy particles composed of two phases—the phase richer in tin (darker in the SEM micrograph) and the phase richer in lead (brighter spots in the SEM micrograph).

High relief elements were made with the help of moulds. The composition of the earthen material resembles that of the fine plaster; it is highly probable that the local earths *tua* and *tava* were used for the earthen relief mass. The mass contains fine animal hairs aimed to reinforce and prevent it from cracking. The earthen relief material contains fine animal hairs aimed to reinforce and prevent the earthen mass from cracking. To modify the plasticity of the relief mass and to increase its cohesion, small amounts of animal glue and some carbohydrates, maybe molasses, were added, too. The cast elements were attached to the wall with egg-white, to which some animal glue was added (fig. 209). This procedure is in agreement with the information of the local painter, according to whom the high relief was traditionally made by filling a prepared mould with earthen mass and still wet attached to the wall to let set¹².

The relief surface was then covered with the white gypsum ground and embellished with painting and/or metal decoration, which is described in the following text.

The low relief elements were modelled directly on the wall from a coloured relief mass in two different ways. The mass was either applied with brush by superimposing differently coloured layers of the relief paste, or this was extruded as one thick layer to the wall. The examination of the coloured relief mass has revealed for a conservation scientist an astonishing composition since the mass was made of pigments of very high quality. Crushed cinnabar, orpiment and limestone¹³ bound with animal glue have been detected (see fig. 210). Such a composition suggests high technical and artistic level of the decoration, and the high importance of the temple as well.

Unfortunately, none of the ancient texts mentions the techniques of the relief preparation. The only notice found in the literature is the recent account of Wu Junkui who describes the extrusion of the "glued plaster-jelly" with the subsequent metal decoration. According to this author, the relief-technique has only been used for the decoration of very important paintings (Wu 1994: 383).

12 Bijal S., local painter at Nako, personal communication 2007.

13 The low relief mass is the only part of the painting, where calcium carbonate and not calcium sulphate (gypsum) was used.



Fig. 208: Low relief work in the right bottom part of the north wall in the Translator's Temple. a) general view; b) and c) details.

The presence of the raised elements at Nako is rare but not unique in the Western Himalayas. Raised reliefs embellish the framing and decorative elements of the 12th-century murals in the Sumda Chun Monastery (Priego Rendo 2009: 25, 60) and of the (probably) early 13th-century wall paintings in the Sumtsek in Alchi (Goepfer and Poncar 1996: 266, 273); in both cases gypsum was used as the relief material. Reliefs are present also in the 12th-century murals in Saspotse (Kozicz 2010a), the remnants of relief work can still be found on the last standing wall of the probably 11th-century Chigtan Temple (Bayerová and Kozicz forthcoming) and finally, the presence of *pastiglia* decoration is briefly reported to be also in the temples in Wanla and Kanji (Skedzuhn et al. forthcoming[b]: 5). It seems obvious that the relief decoration has had a long tradition in other regions as well. The presence of the relief work is reported in the 15th-century murals in the Thubchen Lhakhang in Lo Manthang, Nepal (Mazzeo et al. 2004: 679) and the Gyantse Monastery (Ricca and Lo Bue 1993: 102; Le Huu Phuoc 2010: 228), but also in the decoration of clay sculptures in the Shuilu'an Buddhist Temple Complex in Shaanxi province dated to c. 618–907 (Blaensdorf and Tao 2010: 208).

Fig. 209: Gilded high relief work in the upper part of the south wall in the Translator's Temple. Places with remnants of glue (egg-white and traces of animal glue—marked with arrows) exhibit strong fluorescence under UV-light.

a) visible light; b) UV-light.

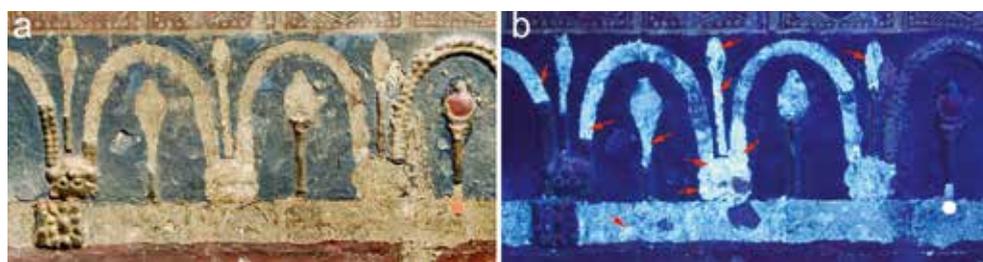
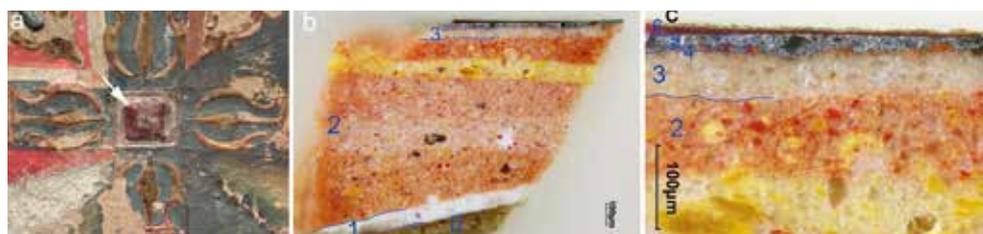


Fig. 210: Low relief work in the centre of the south wall in the Translator's Temple. a) photograph of the sampling place; b) cross-section of a sample showing the earthen plaster (0), white gypsum ground (1), coloured relief mass (2) and white ground (3) followed by upper layers;

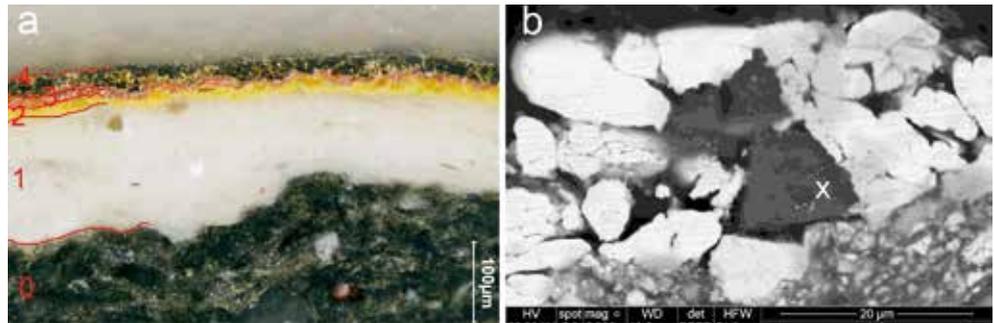
c) cross-section showing in detail the coloured relief mass (2), white ground (3), red vermilion underlayer (4), tin-lead-alloy layer (5) and red glaze on the top (6).



METAL APPLICATIONS

Gold was extensively employed for both the south and north walls' decoration (see figs 208 and 211). Gold in form of powder mixed with protein binder, probably animal glue, was applied by brush either over the red vermilion/cinnabar layer or over the red and yellow orpiment layer. The gold surface was polished. Such an application corresponds to the technique known in Tibet as "cold gilt" (Jackson and Jackson 2006: 85). From the composition of gold it is obvious that the quality of gold is very high, corresponding to c. 22-carat gold today.

Fig. 211: Gilded high relief in the upper part of the south wall in the Translator's Temple. a) cross-section showing the earthen relief mass (0), white gypsum ground (1), yellow orpiment (2) and red cinnabar underlayer (3) followed by the layer of gold powder; b) backscatter SEM micrograph of gold particles; the grain with a cross marks the silica grain from the grinding of gold.



Since yellow ochre has been preferred as a preparation layer for gilding in Tibet (Jackson 1976: 283; Lo Blue 2006: 92), the presence of vermilion/cinnabar and orpiment layers is a quite interesting feature of the gilding technique. Both layers were found also under the original gold layer of the 12th-century sculpture Vairocana from the same temple, and in the gilding of sculptures from the original decoration in the Upper Temple (Bayerová et al. 2010: 5, 6). The vermilion and orpiment preparation layers under the powder gold were used in other Western Himalayan paintings as well: in the Sumda Chun Monastery (Priego Rendo 2009: 62, 66), in the Saspotse Stupa (Bayerová 2009), in the Padmasambhava Temple at Nako (Bayerová 2008), in the Thubchen Lhakhang in Lo Manthang, Nepal (Mazzeo et al. 2004: 680), or under the gold leaf in the Red Maitreya Temple in Leh (Nicolaescu and Alexander 2008: 68). Unfortunately, it hasn't been stated whether these layers are also present under the powder gold layers in the murals from the Sumtsek, Alchi.

Since gold is a very ductile and malleable metal, its pulverizing is quite difficult. Painters in Tibet obtained gold powder from Newar gold workers in Kathmandu, who kept their technique of gold grinding a secret (Jackson and Jackson 2006: 85).

Gold powder has had a very long tradition in Ancient India, where it was used mainly in medicine and for painting (Dube 1991: 95). Gold is listed among the colouring substances in the *Citrasūtra* (Mukherji 2001: 137) and the detailed description of the gold comminution is introduced in both later texts, the *Abhilaṣitārthacintāmaṇi* (Coomaraswamy 1934: 65) and *Citralakṣaṇa* (Bhattacharya 1974: 56).

The second type of metal of "silver" colour is an alloy of tin and lead, commonly known as pewter. The pewter in form of powder was mixed with binder and applied by brush over the red cinnabar layer on the south wall, or directly on the surface of the coloured relief mass on the north wall (see figs 207 and 210).

The surface of tin-lead alloy was not covered with any protective coating. Since tin is not affected by air, it is not necessary to protect it against tarnishing and after 800 years the metal still retains its silver-colour. Anyhow, some pewter coated reliefs are glazed with a red dye

probably lac, in order to produce the luminous silver-red appearance. These elements belong to the most splendid decorative details of the wall.

Lo Bue has stated that tin ore deposits do not occur in the Himalayas and Nepal (Lo Bue 1991: 8). Tin was very likely imported into the Himalayas from Afghanistan, but some tin could have been imported also from India (Reedy 1997: 105). On one hand, the absence of tin sources is the logical explanation why, based on the analytical results, tin was used only rarely and in small amounts in the Tibetan statuary alloys (Lo Bue 1991: 23; Dubrovin 1990). On the other hand, the fact that the *Citrasūtra* mentions tin among the “substances of (mineral) colours” (Mukherji 2001: 137) indicates that this treatise was written in the milieu in which tin was not uncommon, thus supporting Kashmir as the possible place of the *Citrasūtra*'s origin¹⁴.

The presence of tin alloy in Nako is not accidental, since the tin-lead alloy was found also in paintings in the Sumda Chun Monastery (Priego Rendo 2009: 60). The pure tin powder was identified in the murals from the Sumtsek, Alchi (Goepper and Poncar 1996: 274) and in the Chigtan Temple (Bayerová and Kozicz forthcoming). According to the visual observations of Kozicz in the Votive Stūpa in Saspotse the “nimbuses were done in silver high relief” (Kozicz 2010a). It is possible that also here the “silver” colour was achieved by the use of tin metal or its alloy.

COMPARISON OF THE PAINTING TECHNIQUE USED ON THE SOUTH AND THE NORTH WALLS

The study provides outlines of materials and painting techniques of both walls, but it is far not enough to give all the particulars. In the current state of knowledge it can be concluded, that there is no difference in the painting materials used, but there are some differences in the painting techniques such as follows:

- employment of the high relief only in the upper half of the south wall
- more extensive use of the tin-lead alloy on the south wall
- different application of the tin-lead alloy: it is applied over the red cinnabar layer on the south wall, while on the north wall the alloy is laid directly on the surface of the relief mass
- a dark underpaint for the blue background painting was found only in the south wall painting¹⁵
- the addition of the red iron oxide to azurite in the blue background painting was confirmed only in the south wall painting
- the yellow dye was used less extensively to produce the green colour on the north wall, than it was used on the south wall.

These findings support the conclusions of the stylistic and iconographic analysis that the south and north walls were painted by different groups of artists (Luczanits 2004: 80).

The West Wall behind the Goddess Prajñāpāramitā

The analysis of the yellow mandorla background of one of the four Buddhas depicted under the statue of the goddess Prajñāpāramitā revealed the presence of yellow dye mixed with

14 During the reign of the Karkota dynasty (from 625 to 1003), Kashmir included also the modern territory of Afghanistan where tin was commonly available.

15 In this case it is only a very rough comparison, since as it is obvious from the investigations of the south wall, the painting technology of the blue background varies even within one wall.

orpiment. Despite the dye was not further investigated, the combination of the yellow dye with orpiment resembles the technique of the original painting of mandorlas from both the south and north walls, and strongly suggests that the painting under the Prajñāpāramitā-statue belongs to the original decoration.

The background to the right and to the left of the statue is of grey-blue colour, not resembling the original colours at all. Nevertheless, the occurrence of the original layers has been anticipated here¹⁶. The study confirmed the presence of a blue layer composed of high quality azurite, which is obscured by the grey overpainting today, thus imparting an unpleasant faded hue to the blue painting around the statue. The bottom blue azurite layers can be considered with some certainty as the original painting.

The Apse

The situation in the apse is far more complex than on the previously described walls since it is extensively overpainted. The study was, therefore, focused on the eventual presence of older (original?) layers under the present ones, their characteristic and comparison of painting components with those found on the south and north walls.

The only exposed paintings from the earlier phase are those below the Ratnasambhava statue, among which the depiction of Bodhisattva Vajraketu and of vajra in mandorla are preserved (Luczanits 2004: 80). The presence of a yellow dye was revealed in the painting of the greenish part of the mandorla around the vajra painting. Despite the dye was not further analysed due to the insufficient sample amount, it is highly probable that the yellow dye is gamboge¹⁷.

A very thin wash of red dye applied directly over the gypsum ground was found in the painting of the mandorla around the Bodhisattva Vajraketu. The red dyestuff was identified as lac, but its analysis revealed a slightly different chemical composition than that of the lac from the south and north walls¹⁸. This finding suggests that the lac dyes used on both the south and north walls and that used in the apse were not prepared in the same way.

The presence of older paintings, today hidden under the overpaintings of varying thickness, was detected in many places over the entire apse. The later paintings do not match the previous colour scheme. The secondary paint layers were painted either directly on top of the older ones, or, there were first the secondary plaster and ground applied on the surface of older paintings and then the secondary paint layers were executed.

The earlier painting is applied on the white ground composed of gypsum bound with proteinaceous binding media, very probably animal glue. The binding medium of older paint layers is possibly animal glue, too. Good quality pigments and dyes were detected as those used on the south and north walls: azurite (somewhere applied over the dark underpaint and somewhere mixed with an intentionally added red iron oxide), indigo, cinnabar/vermilion, red earth, lac (red lac of the same composition like the one from the vajra painting), orpiment, gypsum, lamp black and "mixed" green, in which also the yellow dye was employed. The pres-

¹⁶ Petra Müller, art historian, Vienna, personal communication 2008.

¹⁷ The yellow area exhibited *in situ* the same fluorescence as the areas where gamboge was identified.

¹⁸ The dye was analysed by the high-performance liquid chromatography. Unlike the lac from the south and north walls, where laccaic acids A, B and D and erythrolaccine were detected, in the lac from the apse the erythrolaccine is missing. The absence of erythrolaccine indicates that there was no alkaline extraction of the dyestuffs used during the dye preparation.

ence of metals was not revealed. This sounds logical, since metals were used for the decoration of raised elements, and when the apse was renewed, its surface was probably flattened and all the eventual relief elements should be removed.

All the above mentioned similarities between the older murals in the apse and these on the south and north walls strongly suggest that the paintings in the apse belong to the earliest phase. The presence of a red dye with slightly different composition might indicate that all three walls—south, north and west wall—in the apse were decorated by different artist workshops.

The East Wall

Fragmentary preserved gilding on the east wall down to the left of the entrance is executed on the blue background composed of natural azurite, on top of which a red cinnabar underlayer for gold powder was applied. Remnants of the green over the fine grained red vermilion were painted with “compounded green”, composed of indigo and coarsely ground orpiment. The painting is executed on a white, homogeneous and very pure gypsum ground, the surface of which seems to be burnished.

It is very likely that the fragments of the original east wall painting are contemporary to those paintings executed on the south and north walls.

UPPER TEMPLE

The wall paintings in the Upper Temple are painted in brilliant colours, among which washes executed with organic dyes are lavishly used. The overall colour is of a cooler shade than the paintings in the Translator’s Temple. Based on the stylistic assessment of the murals in the Lotsawa Lhakhang and the Lhakhang Gongma it has been concluded that the murals cannot be of the same period; the proposed date for the Lhakhang Gongma wall paintings is the middle of the 12th century (Luczanits 2003b: 53, 2004: 88).

The preparation techniques used for setting-out of painting are still readable on several places of the temple: incised compass lines, red brush underdrawings and snapped lines in natural red iron oxide. Unfortunately, there were no colour notations revealed.

The white ground, onto which the murals are painted, is composed of gypsum bound with proteinaceous binding medium, very probably animal glue. The ground is almost twice as thick as the grounds of the murals in the Translator’s Temple.

The painting is executed in *secco* technique that corresponds to the glue-bound tempera; the binding medium of paint layers is bovine (or a genetically close relative) glue.

The Upper Temple murals are not created by so many superimposed thin layers like those in the Translator’s Temple. Here, there are usually two thin paint layers applied; in the ornament decoration up to three paint layers are present. The blue azurite paint of the background is, like in the Translator’s Temple, applied as one thick coat, everywhere over the black underpaint.

The same colouring materials of outstanding quality like in the Translator’s Temple murals were detected: azurite (somewhere mixed with an intentionally added red iron oxide), indigo, cinnabar/vermilion, red earth, lac, orpiment, gamboge, gypsum and lamp black.

The outlining is executed, similarly to the Translator’s Temple, in different colours: dark blue, black, beige and red. There was no original coating applied to the surface of the painting.

Unlike the Translator’s Temple painting, there is no relief decoration with metal coatings present in the Upper Temple, except gilded accents in the depiction of the Green Tārā on the east wall. Low relief work in form of fine coloured impasto is used for the decoration of jewels and crowns of the deities on the south and east wall.

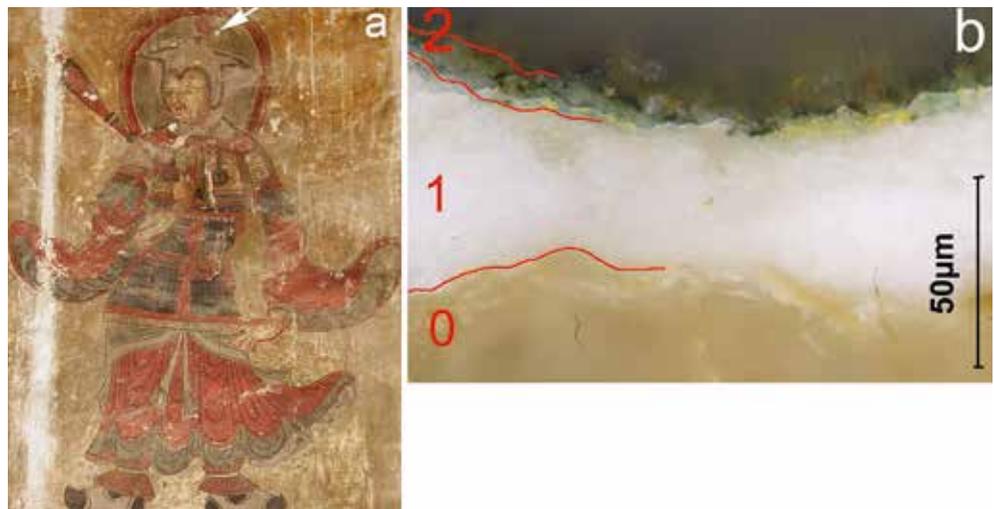
The presence of the lead-tin alloy was revealed only in the decoration of the last preserved original wooden decorative element attached to the wooden capital.

Despite the overview of the colourants used in the Upper Temple and in the Translator’s Temple is the same, there are differences in the way of their use described in the following text.

- Orpiment, cinnabar and vermilion, the latter underpainted with the red natural iron oxide, are less extensively used than in the Translator’s Temple painting. Instead of their use, there are larger areas painted with glazes employing organic dyes—yellow gamboge and red lac.
- Gamboge was used directly by dispersing the dye into the diluted glue and then applied as a thin wash with or without orpiment over the gypsum ground for painting of the yellow areas, for the outlining of a mandala circle and for producing of “mixed” greens. *In situ* inspection using UV-light has revealed that some parts of the painting executed with gamboge are washed-out. Fortunately, the discolouration affects only a small part of the total yellow area, most of which still retain its original golden-yellow colour.
- Red lac was used without any precipitation on an inert directly by mixing the dye with animal glue. The lac has the same chemical composition as the lac used in both the south and north walls in the Translator’s Temple, suggesting the same way of the dye preparation.
- Unlike the Translator’s Temple murals, in which the green colour was achieved by using of “compounded” greens and also by superimposing of blue and yellow layers, in the Upper Temple the green areas were only painted with “mixed” greens. The “compounded” greens are composed of indigo and orpiment or indigo and gamboge and to some of them also azurite was admixed (fig. 212).
- An interesting aspect of painting technology offers the occurrence of the dark underpaint layer under other layers than the blue azurite one: either under the green indigo/orpiment layer or the red ochre/ vermilion layer. The latter one produces in the whole context an unusual violet colour, moreover, this is the only area where the natural red iron oxide was identified in the final paint layer.

Fig. 212: Protective deity on the west wall in the Upper Temple.

a) photograph of the sampling place from the green area around the head; b) cross-section of a sample shows earthen plaster (0), gypsum ground (1) and green paint layer (2). The green layer is coloured with the “compounded” green composed of indigo, orpiment and gamboge.



- Another unexpected finding offered the painting of the background around the small mandala to the left of the entrance, where darkened blue colour was anticipated. Instead of blue, a black paint composed of pure lamp black in the proteinaceous binder was detected. The black colour used for the background is rather strange in comparison to other parts of the original decoration.

Klimburg-Salter raised a question whether the Upper Temple might have been built and decorated prior to the Translator's Temple, and then re-painted at the same time as the Translator's Temple was painted (Klimburg-Salter 2003: 44, 2007: 32). In such a case the remnants of the earlier paintings might be found under the present 12th-century paintings. However, during the systematic observation with the infrared camera as well as during the cleaning and other conservation measures no fragments of any earlier decoration supporting this hypothesis were found.

GYAPHAGPA LHAKHANG

The current decoration inside the Gyaphagpa Lhakhang looks completely different from the previous two temples; all four walls were overpainted in less elaborated and less impressive style in the late 16th century (Kerin 2008: 4). The overall colour scheme is warmer and lighter, the paintings are much coarser, not so delicate and with a very limited accent to the detail.

The presence of older paintings can still be traced underneath the present ones in several places throughout the temple. While the older murals show through the cracks and voids in secondary paintings in various parts of the east wall and in the upper left and right parts of the north wall, there were not observed any traces of the older decoration on the west and south walls.

The older painting is applied over a homogeneously and compact-looking white gypsum ground. Pigments identified in paint layers are cinnabar/vermillion, azurite and lamp black.

The good quality coarsely ground azurite was either applied over the layer of lamp black or directly over the gypsum ground. In the red area, where the presence of a red dye was anticipated, vermillion and cinnabar were detected, although the typical red underpainting composed of ultra-fine red ochre, found in the original paintings in the previous two temples, is missing.

Proteinaceous binder (not further specified—maybe animal glue as well?) was confirmed in both the gypsum ground and paint layers.

The limited amount of available samples was far not enough to give more details on the painting techniques and none of the pigments identified enables the dating of the older painting. Therefore, the contemporariness of the older murals in the Gyaphagpa Lhakhang with those in the other two temples can be neither confirmed nor disproved.

WHITE TEMPLE

The walls inside the White Temple are largely overpainted with murals, the dating of which has not been settled yet. While the wall paintings on the east wall are similar in colour and style with the 16th-century wall paintings in the Gyaphagpa Lhakhang, the style of the paintings on the north and south walls is different. These paintings are coarser, not so refined and elaborated like the 12th-century originals, but also here are areas with a high attention to detail, like the decorative flower scrolls or fine black brush paintings. Colours of the paintings are not in the warmer light hues, but the colder blue and green shades dominate.

There are still older paintings preserved under the overpaintings on the south, north and west walls. Similarly to the Translator's Temple, on the east wall there are remnants of the older decoration preserved only at the bottom. It is possible that the east walls of both temples collapsed in the past, maybe at the same time, due to an earthquake.

Older paintings are executed on a white gypsum ground. The binder of both, the ground and paint layers, is based on proteins, probably animal glue. The only colourants found in the few samples taken are azurite, cinnabar and red earthen pigment. Quite interesting is the detection of the red iron oxide of the sub-micron particle size in the light red-orange underlayer for the cinnabar layer.

Another interesting finding is that everywhere except the upper part of the east wall, the secondary plaster contains grains of cinnabar/vermilion and azurite. It is very probable that by the application of the secondary plaster the surface of the original water-soluble paint-layers was wetted and partly destroyed and the pigment particles were partially transported to the newly applied plaster.

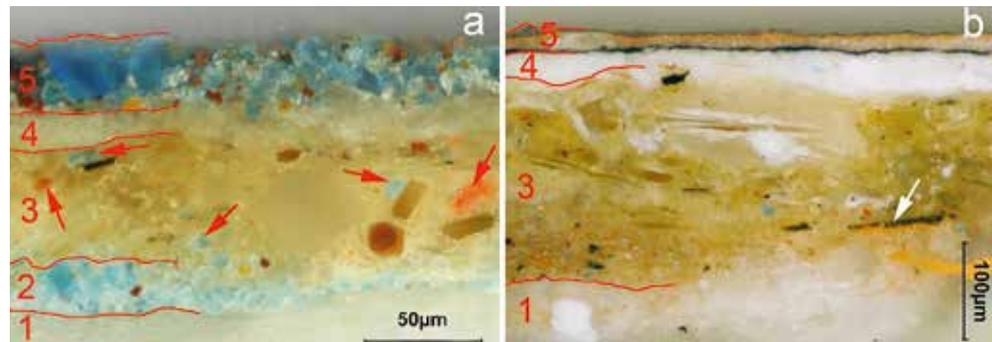
Surprisingly, among the pigment grains there were found also particles of gold and pewter indicating the use of the metal decoration in older paintings (see fig. 213). Moreover, in one sample the stratigraphy and composition of layers correspond to the build-up and composition of the low relief elements used in the Translator's Temple; the presence of calcium carbonate is of particular interest.

Based on all these findings it might be assumed that the older murals are contemporary with the original decoration from the Translator's and the Upper Temple.

Fig. 213: Two cross-sections of samples from the secondary painting in the White Temple.

a) The secondary paint layer (5) and gypsum ground (4) are executed on the secondary plaster (3) containing grains of cinnabar/vermilion and azurite—marked with red arrows. There is an original azurite paint layer (2) and gypsum ground (1) preserved underneath.

b) The secondary plaster (3) contains besides azurite grains also fragment of gold layer on the vermilion preparation layer—marked with a white arrow. There is only original gypsum ground (1) preserved underneath.



WOODEN ELEMENTS

Ceiling panels from the White Temple, the Translator's and the Upper Temple, as well as capitals, beams and other wooden elements from the Translator's and the Upper Temple were studied. The same painting technique as that used in the original murals could also be traced in the painting of wooden elements.

The ceiling panels were made from Himalayan cedar or deodar (*Cedrus deodara*) (Kohler 2006a: 144) native to the Western Himalayas from Western Nepal to the east of Afghanistan, growing at 1.500–3.200 m.

The surface of wood was first covered with the earthen preparation layer, followed by the white gypsum ground and, finally, one or more paint layers were applied. The paint colourants identified were azurite, indigo, red earthen pigment, vermilion, cinnabar, lac, orpiment, gamboge, lamp black and a lead-tin alloy, pewter. The binding medium is animal glue.

Similarly to the original murals, also in the painting of wooden elements the underlayer

from a very-fine grained earthen red pigment under the cinnabar paint was identified. Two different combinations of “mixed greens” were found also: the green indigo/orpiment layer directly on the gypsum ground and the green indigo/orpiment over the orpiment layer.

Quite surprising was the finding of lac not only on the capitals, where the presence of a red dye was anticipated (see fig. 214), but also in the large area painting of the wooden beams. Lac has the same chemical composition as the lac used in the murals of the Upper Temple, indicating the same way of the dye preparation, and it was used directly by mixing the dye with animal glue without the precipitation on a substrate.

The presence of the yellow dye gamboge in the multi-coloured stripes and of the lead-tin alloy, which was used for the embellishment of the last survived painted wooden relief element in the Upper Temple, strongly suggests that the interior wooden decoration and the murals originate from the same time (fig. 215).

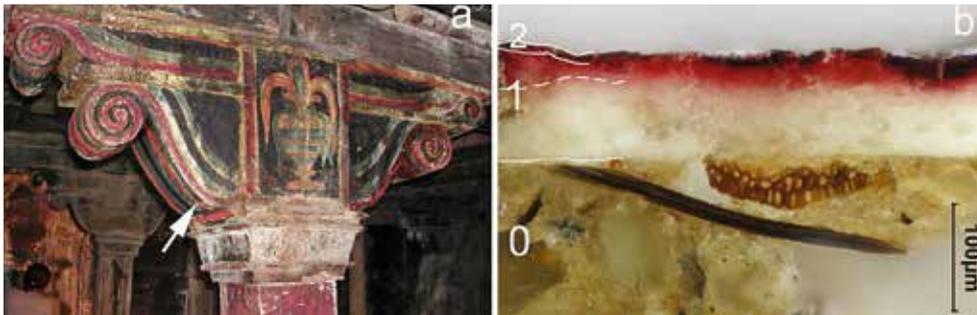


Fig. 214: Painted wooden capital in the Upper Temple.
a) photograph of the sampling place; b) cross-section of a sample taken from the red stripe showing the earthen preparation layer (0), white ground (1) and red layer coloured with lac (2); the paint layer partly soaks to the gypsum ground



Fig. 215: The last preserved original wooden element in the Upper Temple. The element is attached to the wooden capital and decorated with the lead-tin alloy.

POLYCHROMY OF SCULPTURES

The polychrome clay sculptures from the two largest temples at Nako are contemporaneous with the 12th-century murals (Luczanits 2004: 80). The study was focused on two sets of statues: Five Transcendent Buddhas, or Five Jinas, from the apse of the Translators' Temple¹⁹ and eight Buddhas flanking the statue of Prajñāpāramitā on the east wall of the Upper Temple. Both sculpture ensembles are largely remodelled and heavily overpainted today; while the Five Jinas from the Translators' Temple are overpainted in their characteristic body colours and the same colour scheme underneath was anticipated, the original colour appearance of the statues from the Upper Temple was completely unknown and its study presented a challenge.

A closer look at the earthen material from which the sculptures are made revealed the use of locally available soils *tava* and *tua*, plant fibres, animal hair and skin, ash, as well as proteinaceous binding medium, very likely animal glue.

In the nearly life-size sculptures from the Translators' Temple pure *tava* without any *tua* addition was found. The lack of *tua* in the rather large corpus might be explained by an awareness of the shrinkage risk that could be minimized by keeping the clay amount as low as possible.

The distinctly smaller Upper Temple sculptures were made from a mixture of *tua:tava* in the ratio 1:4 (by volume) applied in a lower coarser and upper finer layers.

There was a white gypsum ground applied over the surface of the earthen core in both statue sets, onto which paint layers were applied.

Two to four remodelling phases of different extent and thickness were revealed during the study of the Five Jinas sculptures from the Translator's Temple.

The present colour of the Amoghasiddhi sculpture is green, but surprisingly, the oldest preserved body colour that might have been considered original is the blue azurite layer, followed by yellow and green overpaintings.

Under the last yellow layer of the Buddha Ratnasambhava there are several older yellow layers still preserved. Unfortunately, based on the composition of only one bottom layer painted with orpiment, it cannot be stated whether this is original or not.

The Buddha Vairocana is currently painted white. The oldest polychromy found on the nose, waist and forearm is the gold foil applied over thin red vermilion and yellow orpiment preparation layers. These findings clearly indicate that the body of Vairocana was originally partly or overall gilded.

The Amitābha's current colour is red with other four older reds underneath. The oldest red body colour containing vermilion, applied over a white gypsum ground, could be considered original.

The Buddha Akṣobhya is currently blue with six older paint layers underneath. The oldest blue azurite layer might be original.

The sculptures in the Upper Temple are quite colourful today (see fig. 216). The body of the Prajñāpāramitā statue is yellow; the eight Buddhas around wear red and blue monks' robes and have bodies in yellow, red and blue. Unlike today's colours, the oldest polychromy, revealed on all nine sculptures except one, is based on water gilding. It is highly probable that the eight Buddhas and the Prajñāpāramitā statue were originally completely gilded. Gold is

¹⁹ Since the statue of Prajñāpāramitā from the Translator's Temple was freshly after the restoration, it could not be included within the technical study.

applied over thin red vermilion and yellow orpiment size-layers (fig. 216). This build-up and material composition tallies with findings from the Vairocana sculpture and original murals from the Translator's Temple. Over the first decoration phase there are one or two secondary earthen layers finished in different colours. Remodelling in the areas of navel is relatively fine and thin, but on the arms and legs it is quite crude, attaining a thickness of several centimetres.

It might be summarised that the painting techniques and materials used in the original statues' polychromy appear to be similar to those employed in the surrounded original wall paintings.

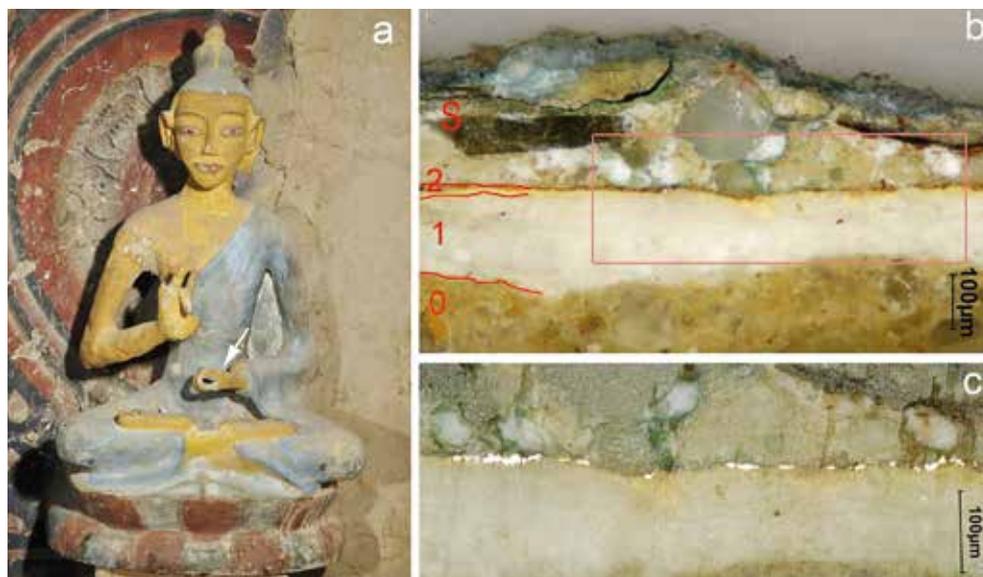


Fig. 216: Buddha statue from the east wall in the Upper Temple.

a) photograph of the sampling place from the navel area; b) cross-section of a sample shows several secondary layers (S) that obscure the original decoration phase composed of earthen core (0), white gypsum ground (1) and layer of gold applied over thin red vermilion and yellow orpiment size-layers; c) cross-section showing the layer of gold in detail.

CONCLUSION

The original interior decoration in the Nako Gompa was systematically documented and studied from the material point of view. Sculpture construction techniques and the diverse materials used provide evidence of the “classical Indian technique” adopted for Western Himalayan Buddhist statues around the 12th century. The painting technology of all interior parts—wall paintings, sculptures and wooden elements—is fundamentally very similar: there is an earthen preparation layer on the support, followed by the white gypsum ground, onto which paint layers are applied. The same painting technique—the glue tempera based on bovine (or similar animal) glue—is used everywhere.

The painting technique and colourants correspond to those described in the earliest “treatise on painting”, the *Cītrasūtra* of the *Viṣṇudharmottara Purāṇa*, except for the use of the blue pigment azurite and the yellow dye gamboge. The only mineral blue pigment listed in this treatise is lapis lazuli. Assuming that the *Cītrasūtra* is of Kashmiri origin, lapis lazuli is geographically a natural pigment choice. On the other hand, the proximity of Nako to Central Tibet, which is blessed with azurite deposits, could be an explanation for the use of azurite at Nako.

Gamboge is not mentioned either in this or in later manuscripts²⁰ and beside the traditional murals in Kerala, it was up to now not reported in any other Western Himalayan or Central and South Asian painting.

The study has revealed many similarities among the original wall paintings in the Translator's and the Upper Temple, and the original murals hidden under the overpaintings in the apse of the Translator's Temple and in the White Temple.

Despite the painting techniques and materials are in general in all temples the same, there are slight differences between them. The most striking one is undoubtedly the differing use of the high relief decoration which is limited only to the upper half of the south wall in the Translator's Temple. On the same wall the most extensive use of the tin-lead alloy can be observed—its presence in the Upper Temple was only confirmed in the decoration of a wooden element. The way of application of the tin-lead alloy is different as well. While on the south wall in the Translator's Temple it is applied over the red cinnabar layer, the alloy is laid directly on the surface of the relief mass on the north wall in the Translator's Temple and in the Upper Temple. Another difference between the murals in the two larger temples is the thickness of the gypsum ground: there is a markedly thinner gypsum ground in the Translator's Temple than in the Upper Temple.

Despite the extensive use of the red dye lac in both, the Translator's and the Upper Temple, the way of the dye preparation seems to be different based on its chemical composition. In the Upper Temple, the yellow dye gamboge was used more extensively than in the Translator's Temple: while it was used for painting of fine details on the south and north walls in the Translator's Temple, the dye was used also for larger area paintings in the Upper Temple. Moreover, while gamboge was lavishly used for the preparation of "mixed greens" in the Upper Temple and quite frequently also in the south wall painting in the Translator's Temple, its use in "mixed greens" in the north wall painting in the Translator's Temple seems to be least frequent.

Although the study did not contribute to a more precise dating of the wall paintings approximately estimated by Luczanits, all the scientific findings fully support the art-historian conclusions claiming that the wall paintings were painted by different groups of artists. In the Western Himalayan murals the hitherto unidentified presence of the yellow dye gamboge in all original wall paintings located in the Translator's, the Upper and the White Temple indicates some kind of closeness among these artistic groups.

²⁰ Except the Coomaraswamy's translation of the *Abhilaṣitārthacintāmaṇi*, which is discussed in the previous text.

Acknowledgement

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Tab. 3: The overview of painting techniques and materials used in the Western Himalayan, Central Asian and South Asian wall paintings

Site / Object		Date of paintings	Composition of					
			Support	Plaster	Ground		Pigments	
					Filler	Binding medium		
Nako Temple Complex	The Translator's Temple, south wall	First decades of the 12 th century at the earliest	Mud bricks	Earthen plaster	Gypsum	Animal glue (bovine glue?)	Azurite, indigo, cinnabar, vermilion, red earthen pigment, lac, orpiment, gamboge, 'mixed green' from orpiment/gamboge/indigo in various combinations, gypsum, calcite (only in the low relief material), lamp black, gold powder, lead-tin-alloy powder	
	The Translator's Temple, north wall	First decades of the 12 th century at the earliest	Mud bricks	Earthen plaster	Gypsum	Animal glue	Azurite, indigo, cinnabar, vermilion, red earthen pigment, lac, orpiment, gamboge, 'mixed green' from orpiment/gamboge/indigo in various combinations, gypsum, calcite (only in the low relief material), lamp black, gold powder, lead-tin-alloy powder	
	The Translator's Temple, apse, original paintings	12 th century ?	Mud bricks	Earthen plaster	Gypsum	Proteinaceous, probably animal glue	Azurite, indigo, cinnabar, vermilion, red earthen pigment, lac, orpiment, yellow dye, very probably gamboge, 'mixed green' from orpiment/gamboge/indigo in various combinations, gypsum, lamp black	
	The Upper Temple	Mid-12 th century (?)	Mud bricks	Earthen plaster	Gypsum	Animal glue (bovine glue?)	Azurite, indigo, cinnabar, vermilion, red earthen pigment, lac, orpiment, gamboge, 'mixed green' from orpiment/gamboge/indigo in various combinations, gypsum, lamp black, gold powder, lead-tin-alloy powder (only on the wooden element)	
	The White Temple, original paintings	12 th century ?	Mud bricks	Earthen plaster	Gypsum	Proteinaceous, probably animal glue	Azurite, cinnabar, red earthen pigment, gypsum, calcite, gold particles*, lead-tin-alloy particles*	
	The Gyaphagpa Lhakhang, original paintings	12 th century ?	Mud bricks	Earthen plaster	Gypsum	Proteinaceous, probably animal glue	Azurite, cinnabar/vermilion, lamp black	
Nako, the Padmasambhava Temple (Bayerova 2008)	Probably 14 th century	Mud bricks	Earthen plaster	Gypsum	Not analysed	Indigo, vermilion, red dye, orpiment, 'mixed green' from orpiment and indigo, gypsum, gold powder		
Alchi, the Sumtsek, Ladakh (Goepper et al.1996: 273)	Early 13 th century (?)	Mud bricks	One layer mud plaster containing grass and straw; the surface is smoothened	Gypsum with some silicate filler	Animal glue and starch	Azurite, indigo, cinnabar, red ochre, red lake, yellow ochre, orpiment, gypsum, lamp black, charcoal, gold powder, tin powder		
Sumda Chun Monastery, Ladakh (Priego Rendo 2009)	12 th century	Mud bricks	One layer mud plaster containing straw	Gypsum		Azurite, organic blue, iron oxide red, vermilion, red lead, orpiment, green earth, 'mixed green' from orpiment and indigo, gypsum, carbon black, gold powder, gold foil, tin-lead alloy		
Chigtan Temple, Ladakh (Bayerova and Kozicz forthcoming)	Probably 11 th century	Mud bricks	Earthen plaster	Gypsum	No results achieved	Azurite, vermilion, tin powder		

		Other interesting/characteristic features
Paint layers		Comments
	Binding medium	
	Bovine (or a genetically close relative) glue	High relief elements composed of earthen mass, casted and attached to the wall with egg-white; low relief elements composed of cinnabar, orpiment and calcite, either applied with brush by superimposing of single layers, or the mass was extruded as one thick layer ; application of metal powders over the red vermilion and yellow orpiment layer; application of azurite over the grey underpaint.
	Animal glue	Low relief elements composed of cinnabar, orpiment and calcite; application of gold powder over the red vermilion and yellow orpiment layer; application of gold powder over the red vermilion and yellow orpiment layer; less extensive use of the yellow dye for "mixed greens".
	Proteinaceous, probably animal glue	The presence of the relief decoration can be neither confirmed nor disproved, since the original murals were very probably flattened before the application of overpaintings.
	Bovine (or a genetically close relative) glue	There are low relief elements in form of impasto, the composition of which was not studied.
	Proteinaceous, probably animal glue	* Both metal powders were not found in the painting itself, but in the secondary plaster applied over the original murals; the presence of the relief decoration can thus be only assumed, since the original murals were very probably flattened before the application of overpaintings.
	Proteinaceous, probably animal glue	No detailed study possible due to the limited amount of samples available.
	Not analysed	Application of gold powder over the red layer containing probably red dye and yellow orpiment layer underneath.
	Animal glue with addition of carbohydrates: either of starch, or the plant gum or sap	There is a size between the plaster and the ground, which contains animal glue and starch; high relief elements composed of gypsum and some clay mixed with animal glue and starch and applied with brush.
	Animal glue	High relief elements composed of gypsum; application of gold foil over the red vermilion layer; application of azurite over the grey underpaint; application of tin-lead alloy in powder form or in the warm liquid state.
	No results achieved	High relief elements present; application of metal over the red vermilion layer.

Site / Object		Date of paintings	Composition of				
			Support	Plaster	Ground		Pigments
					Filler	Binding medium	
Saspotse	Saspotse Temple, Ladakh (Bayerova 2009)	Overpainting, unknown date; original ? (12 th cent?) underneath	Mud bricks	Earthen plaster	Gypsum (secondary) Gypsum (earlier)	Not analysed	Red lead, orpiment, lamp black, gold powder (secondary painting) Vermilion, red dye, red ochre, gypsum (earlier painting)
	Saspotse, Votive Stūpas, Ladakh (Bayerova 2009)	Overpainting, unknown date; original ? (12 th cent?) underneath	Mud bricks	Earthen plaster	Gypsum (secondary) Gypsum (earlier)	Not analysed	Red lead, orpiment, lamp black, gold powder (secondary painting) Vermilion, red dye, red ochre, gypsum (earlier painting)
Matho Stūpa, Ladakh (Bayerova 2013)	11 th -12 th century	Mud bricks combined with stone	Earthen plaster of reddish colour with plant fibres	Gypsum	Not analysed	Azurite, indigo, red and yellow ochre, orpiment, gypsum, lamp black	
Wanla Gompa, Ladakh (Bläuer 2012)	Late 13 th to early 14 th century	Mud bricks	Earthen plaster	Two types identified: Gypsum / Aragonite, gypsum, clay, quartz, some calcite	Protein binder	Azurite, blue dye (indigo?), vermilion (?), red ochre (?), "mixed green" from orpiment and blue dye (indigo?), gypsum, calcite, aragonite, charcoal black, metal (not specified)	
<i>gTsug lag khang</i> in Kanji, Ladakh (Skedzuhn et al. forthcoming[a])	Early 14 th century	Mud bricks	Earthen plaster	Serpentine minerals with calcite and aragonite	Not clear if the prime coating was applied with or without binder	Azurite, indigo, vermilion, red ochre, red dye, orpiment, yellow ochre, 'mixed green' from orpiment and blue dye (indigo?), charcoal black, metal (not specified)	
Chambā Lakhang (Maitreya Temple) at Basgo, Ladakh (Dhar 2010)	16 th century	Mud bricks	Earthen plaster containing vegetable fibres, grit and animal glue*	Kaolin*	Animal glue*	Cinnabar, red ochre, orpiment, yellow ochre, charcoal black*, gold leaf, gold powder	
Red Maitreya Temple in Leh, Ladakh (Nicolaescu and Alexander 2008)	15 th century	Rubble stone with mud mortar	Two layers of earthen plaster containing straw	Calcium carbonate	Animal glue*	Azurite, cinnabar, red ochre, probably red dye, orpiment, malachite, charcoal black, gold (probably gold leaf), another alloy of golden colour (not so shiny and darker than the golden leaf)	
Lo Manthang, Thubchen Lhakhang Temple, Nepal, Central Asia (Mazzeo et al. 2004)	15 th century	Rammed mud and wood	Rammed mud mortar	Fine clay	Not analysed	Lapis lazuli, azurite, vermilion, iron oxide red, red dye, realgar, orpiment, malachite (brochantite -an alteration product), carbon, graphite, gypsum, gold leaf	

Paint layers		Other interesting/characteristic features
	Binding medium	Comments
	Not analysed	Application of gold powder over the orange- red layer containing red lead and yellow orpiment layer underneath (secondary phase of the unknown date); underpaint with fine red ochre under the vermilion (earlier phase – original?); relief elements also present.
	Under investigation	
	Protein binder probably with some oily phase	The presence of pastiglia decoration is also briefly mentioned. The presence of calcium oxalates was confirmed in paint layers, ground and earthen plaster in several samples.
	Two types identified: Probably plant gum (only for the dark blue paint layers) / tempera (a mixture of water- and oil-based binders)	The presence of pastiglia decoration is also briefly mentioned. The presence of calcium oxalates was confirmed in paint layers, ground and earthen plaster in several samples.
	Animal glue*	Protective shellac* coating applied in selected areas; outlining in black and red; *the identification of all materials is based on an on-site study, not on the scientific analyses.
	Skin animal glue*	Colour notations in black colour are present; blue layers applied over a carbon black in some areas; presence of glazes; thin red vermilion or yellow orpiment present under the gold; * the presence of the animal glue is presumed, not proved by the scientific analyses.
	Not analysed	A mordant layer composed of pararealgar, traces of orpiment and vermilion used for gilding; blue layers applied over a carbon black layer in some areas.

Site / Object	Date of paintings	Composition of					
		Support	Plaster	Ground		Pigments	
				Filler	Binding medium		
Penjikent, Palaces and Houses of Citizens Central Asia (Kossolapov and Kalinina 2007; Neva 2008)	5 th -8 th century		Earthen plaster	Gypsum - raw, not calcined, no traces of anhydrite	Mixture of galactomannan mucilages and fruit gums	Lapis lazuli, magnetite/red ochre, ochre, litharge, orpiment, gypsum, calcite, magnetite (black), gold foil	
Shahristan, Central Asia (Kossolapov and Kalinina 2007)	5 th -8 th century		Earthen plaster	Gypsum - raw, not calcined, no traces of anhydrite		Lapis lazuli, red ochre, brown ochre, litharge, malachite, gypsum, tenorite	
Ajina, Buddhist monastery, Central Asia (Kossolapov and Kalinina 2007)	5 th -8 th century	Not mentioned	Earthen plaster	Gypsum raw, not calcined, no traces of anhydrite		Lapis lazuli, cinnabar/vermillion, red lead, ochre, green earth (celadonite), gypsum	
Bamiyan, Buddhist caves Central Asia (Gettens 1938; Kossolapov and Kalinina 2007; Taniguchi 2007; Cotte et al. 2008)	5 th -9 th century	Conglomerate cliffs	Earthen plasters with chaff or animal hair, or with vegetable fibres, mainly straw or grass (Gettens 1938)	Gypsum or lead white Burnt gypsum (Plaster of Paris) (Gettens 1938)		Lapis lazuli, red lead, red ochre, goethite, yellow ochre, atacamite /paratacamite, chrysocola, gypsum, hydrocerussite, cerussite, charcoal	
Kakrak Central Asia (Kossolapov and Kalinina 2007)	5 th -8 th century	Not mentioned	Earthen plaster	Lead white		Lapis lazuli, red lead, red lead+laureonite, paratacamite, carbon black	
Kucha Central Asia (Kossolapov and Kalinina 2007)	5 th -8 th century	Not mentioned	Earthen plaster	Lead white		Lapis lazuli, vermillion, red lead, orpiment, atacamite, burnt bone, lead white, gypsum, calcite	

Paint layers		Other interesting/characteristic features
Binding medium		Comments
Mixture of galactomannan mucilages and fruit gums		Ground is applied over the dry plaster; paint layers are applied mainly in one layer.
		Ground is applied over the dry plaster; paint layers are applied mainly in one layer.
		Ground is applied over the dry plaster; paint layers are applied mainly in one layer.
Drying oil Animal glue (Gettens 1938)		Lapis lazuli over a charcoal black layer in some case; the presence of a yellowish resinous final layer is reported on more places; documented a sizing layer (applied in two coatings) between the plaster and the ground, made probably of natural resin and protein-based binder (hide glue or egg) and/or plant gums.
		Ground applied over the dry plaster; paint layer applied mainly in one layer.
		Ground applied over the dry plaster; paint layer applied mainly in one layer.

Site / Object		Date of paintings	Composition of				
			Support	Plaster	Ground		Pigments
					Filler	Binding medium	
Mogao Grottoes, Dunhuang Central Asia	Grottoes from the 4 th -14 th cent. (Xudong and Peng 2007; Li Zuixiong 2010)	Early period	Conglomerate cliffs	Earthen plaster with wheat straw	Thin white limewash or red ochre ground		Lapis lazuli, azurite, cinnabar, vermilion, red ochre, red lead, malachite, copper hydroxy chloride, lead white, ink
	(Xudong and Peng 2007; Li Zuixiong 2010; Schilling et al. 2010)	Medium period	Executed on top of existing paintings	Coarse earthen plaster containing straw, fine earthen plaster containing hemp or cotton or unidentified natural plant fibres	White limewash or red ochre ground White ground of calcium carbonate, mica and talk (Cave 85)		Lapis lazuli, azurite (partially transformed into atacamite), cinnabar, vermilion, red ochre, red lead (partially transformed into plattnerite), orpiment, yellow ochre, malachite, copper hydroxy chloride, white lead, black ink, carbon black, organic colorants (under investigation), gold foil, gold powder
	(Xudong and Peng 2007, Li Zuixiong 2010)	Late period		Earthen plaster with straw and fine sand slime	White ground		Lapis lazuli, azurite, cinnabar, vermilion, red ochre, red lead, yellow, malachite, copper hydroxy chloride, white, ink, black, gold foil
Kizil, Grottoes, Xinjiang Autonomous Region, Central Asia (Li Zuixiong 2010)	4 th -8 th century	Rock	Coarse earthen plaster with straw, fine earthen plaster with hemp	Gypsum or lime		Lapis lazuli, vermilion, red ochre, red lead, brown-black PbO ₂ , copper hydroxy chloride, gypsum + calcite, gypsum + anhydrite	
Sogdian paintings, Penjikent, temples and city buildings Central Asia (Azarpay 1981)	5 th -8 th century	Unfired bricks or clay	Two mud plaster layers with straw	Gypsum ground, sometimes mixed with kaolin to produce smooth "alabaster" surface		Natural ultramarine, indigo, vermilion, red earth, realgar, orpiment, "mixed green" from indigo and orpiment	
Sangyesi Temple from the 8 th century, Tibet border Central Asia / India (Tao et al. 2007)	Paintings from the 16 th century	Stone with a clay layer	Plaster in two layers: - red sand with mica based clay (bottom) - sand with calcite-based binder	<i>Angha</i> earth (white clay used in Tibet)	Animal (ox bone) glue	Azurite, cinnabar or red lead, yellow ochre or gold, orpiment, malachite, chalk or other calcium carbonate, occasionally organic dyes	

Paint layers		Other interesting/characteristic features
Binding medium		Comments
		White pigments used in general: chalk, kaolin, talk, gypsum, mica.
		Binding media used in general: animal glue and/or fruit gums.
	Animal glue, assumed ox hide glue	
	Vegetable glue	
	Animal glue	Top protective layer based on animal glue, egg white and <i>subo</i> water used to protect wall paintings in Tibet (<i>subo</i> water is an extract from the roots of a local shrub <i>subo</i> used as a detergent).

Site / Object	Date of paintings	Composition of					
		Support	Plaster	Ground		Pigments	
				Filler	Binding medium		
Zangniangsi Temple, Tower Tibet border Central Asia / India (Tao et al. 2007)	12 th century	Cut stone with a clay layer	Earthen plaster (addition of fibres, and , may be glue)	<i>Angha</i> earth (white clay used in Tibet)	Animal glue (ox bone glue)	Azurite, cinnabar or red lead, orpiment or yellow ochre, malachite, chalk or other calcium carbonate, carbon black	
Bezekli, Grotto, Xinjiang Autonomous Region, border Central Asia / India (Tao et al. 2007)	5 th and 9 th -12 th century	Conglomerate cliffs and adobe	Earthen plaster in two layers: Bottom one – addition of wheat straw Upper one – addition of cotton, hair, hemp	Gypsum or lime		Possibly lapis lazuli, azurite, cinnabar or red lead, orpiment or yellow ochre, malachite, chalk or other calcium carbonate, occasionally lead white, red lead and lead dioxide for black	
Ajanta caves India (Sharma 2007; Set 2010)	2 nd century BC –6 th century AD	Cut basalt rock	Earthen plaster (2-3 layers, addition of fibrous vegetable material)	Lime, kaolin, or gypsum		Lapis lazuli, red ochre, yellow ochre, green earth (glauconite), gypsum, lime, kaoline, lamp black	
Bagh caves India (Paramasivan 1939; Mora et al. 1984; Sharma 2007; Set 2010)	5 th -7 th century	Cut rock	Earlier phase – ferruginous earth based plaster ; 7 th century – lime based plaster	Lime or gypsum		Lapis lazuli, red ochre, yellow ochre, green earth, lime, carbon black	
Sittanavasal cave, India (Set 2010)	8 th -10 th cent.	Stone	Lime and sand	Lime		Lapis lazuli, red ochre, yellow ochre, green earth, lime, charcoal or lamp black	
Rajasthan, Fort palace, India (Set 2010)	12 th to mid-19 th century	Stone/brick wall	Coarse plaster of lime and sand, two layers of fine plaster	None		Lapis lazuli, cinnabar, red lead, red ochre, yellow ochre, green earth, “mixed green” from blue and yellow, brown from Indian red, lime, carbon black	

Paint layers		Other interesting/characteristic features
Binding medium		Comments
Animal glue (from cattle bones), occasionally mixed with plant gums		Typical examples of the Chinese wall paintings techniques.
Animal glue (cow skin)		Typical examples of the Chinese wall paintings techniques.
Gum or animal glue		
Gum or animal glue		
Lime water		Ground applied on the wet plaster; fresco technique
None		Fresco technique



दामोदर
शुभा
DONATION BOX

3.4. The Nako Gompa and its Conservation and Preservation

Gabriela Krist, Kathrin Schmidt

GENERAL INFORMATION AND PROJECT CHRONOLOGY

The Temples and Nako's Cultural Heritage

For centuries Nako and its temples have been a pilgrimage site and an important centre of Indian *Mahāyāna* Buddhism. The village and its Gompa (*dgon pa*) are located on a major pilgrimage and trade route which crosses the Western Himalayas in the direction of Kailash, the sacred mountain in West Tibet (Klimburg-Salter 2007a: 24). Although the Tibetan heartland (today's Tibetan Autonomous Region, TAR) is geographically very close to Nako, at the same time the Indo-Chinese border and the Sino-Tibetan conflict create an equal distance. Therefore, during the past decades the abovementioned pilgrimage and trade route via Nako to Tibet has diminished in significance, whereas the village and its temple complex have grown in importance.

The so-called Chinese "Cultural Revolution" from the 1960s on led to the destruction of the majority of Tibetan religious buildings in Tibet. As well as the material loss in the form of monastic and temple complexes is added the loss of the immaterial, i.e. Tibetan culture itself. Where Tibetan culture can be lived today without any restrictions as a result of the political situation is in the non-Chinese border areas¹. Because of the losses and destruction sustained as a result of the Chinese Cultural Revolution, the preserved Tibetan Buddhist cultural heritage in these areas has become extraordinarily significant and valuable. The small village of Nako and its temples have also experienced this shift in value, as for historical, artistic and scholarly reasons the cultural heritage which has been preserved there is exceptional².

The Buddhist religious complexes including the Nako Gompa, in the Indian state of Himachal Pradesh, are today among the oldest continuously maintained Buddhist monasteries in the Indian subcontinent and in the Himalayas. They bear witness not only to the religious and art-historical movements but also sociological and cultural development during the 11th/12th century. Frequently it was initially the clues which came from such early monastic and temple buildings which explained later developments of Buddhist art and culture. As a part of the monastic landscape in the Western Himalayas, Nako's temple complex plays a key role in research of the cultural history of the region.

When one considers the significance of the buildings, it should not be forgotten that the passage of time has not left Nako untouched. As Gruber mentioned³, the site is in the world's highest earthquake-prone area and has been marked by numerous natural catastrophes over the last centuries. This makes the preservation of the substance essential for any efforts to maintain and promote the traditions and culture and therefore is a core aspect of the "Nako Project" described herewith.

Fig. 217: Nako, Lhakhang Gongma, view.

1 These are the Himalayan areas of Bhutan, Nepal and India.

2 See also contribution by Gruber, "Nako Village".

3 See contribution by Gruber, "Nako Village".

Fig. 218: South wall, Lotsawa Lhakhang, during conservation treatment 2007.

Fig. 219: South wall, Lotsawa Lhakhang, after conservation.

The Nako-Project

The severe earthquake of 1975 caused the four temples to be heavily damaged and in subsequent years the state of preservation deteriorated dramatically. In the course of further natural catastrophes the continuing damage, especially to temple roofs and walls, caused them to be no longer sufficiently stable or able to support the building load.

At the request of the Nako Buddhist Association in 1998, emergency repairs on the roof of the Lhakhang Gongma (*Lha khang gong ma*) were undertaken under the leadership of a team of art historians from the University of Vienna, the architect Romi Khosla and the Indian National Trust for Art and Cultural Heritage (INTACH)⁴. Resulting from the very severe winter in 1999 one of the main temples, the Lotsawa Lhakhang (*Lo tsa ba lha khang*) suffered additional damage and it was decided that further emergency measures were urgently required. However, not until 2002 was the temple complex at Nako placed on the World Monuments Fund (WMF) list of the “100 Most Endangered Sites in the World”⁵. Furthermore, the International Council on Monuments and Sites (ICOMOS) included the Nako ensemble in its report “Heritage at Risk” (Bacher 2001:108f). As a result, the endangered temple complex first attained world attention. In the same year, Deborah Klimburg-Salter from the University of Vienna’s Department of Art History established the “Nako Preservation Project – NPP”, later known as the “Nako Research and Preservation Project – NRPP”⁶. Funding could be secured from the WMF and under her direction a team started with the art and cultural historical research of the temples. The significance of the temple complex, especially the wall paintings of the Lotsawa Lhakhang were underscored by Deborah Klimburg-Salter, as comparable temples and their interior decoration in Tibet were, as mentioned earlier, destroyed during the Cultural Revolution. A project quickly crystallised which assembled comprehensive documentation of the monuments as a basis for the urgently required conservation measures, as well as research into Indo-Tibetan cultural history. A major goal of the NRPP was the analysis and revitalisation of local building traditions and crafts which had been instrumental in the survival of this significant temple complex.

The entire project was divided into three large fields of action: architectural preservation, conservational analysis and the conservation of the wall paintings and sculptures as well as art-historical research and documentation. Ernst Bacher was the chairman of NRPP and thus stressed its preservational character and goals and furthermore was mandated with the coordination of the three working areas. Romi Khosla (Romi Khosla Desing Studios New Delhi) was responsible for the architectural and monuments preservation aspects within the NRPP⁷. Until 2004, Stephan Rickerby from the Courtauld Institute of Art in London led the conservation-oriented examinations of the artistic interior decorations of the Nako temples. During an initial phase in 2002 the essential architectural restoration work on the Lhakhang Gongma’s roof⁸ was continued and the examination of the wall paintings started.

In 2004 the Institute of Conservation of the University of Applied Arts Vienna was made a project partner for the conservation and restoration measures planned for the temples’ interi-

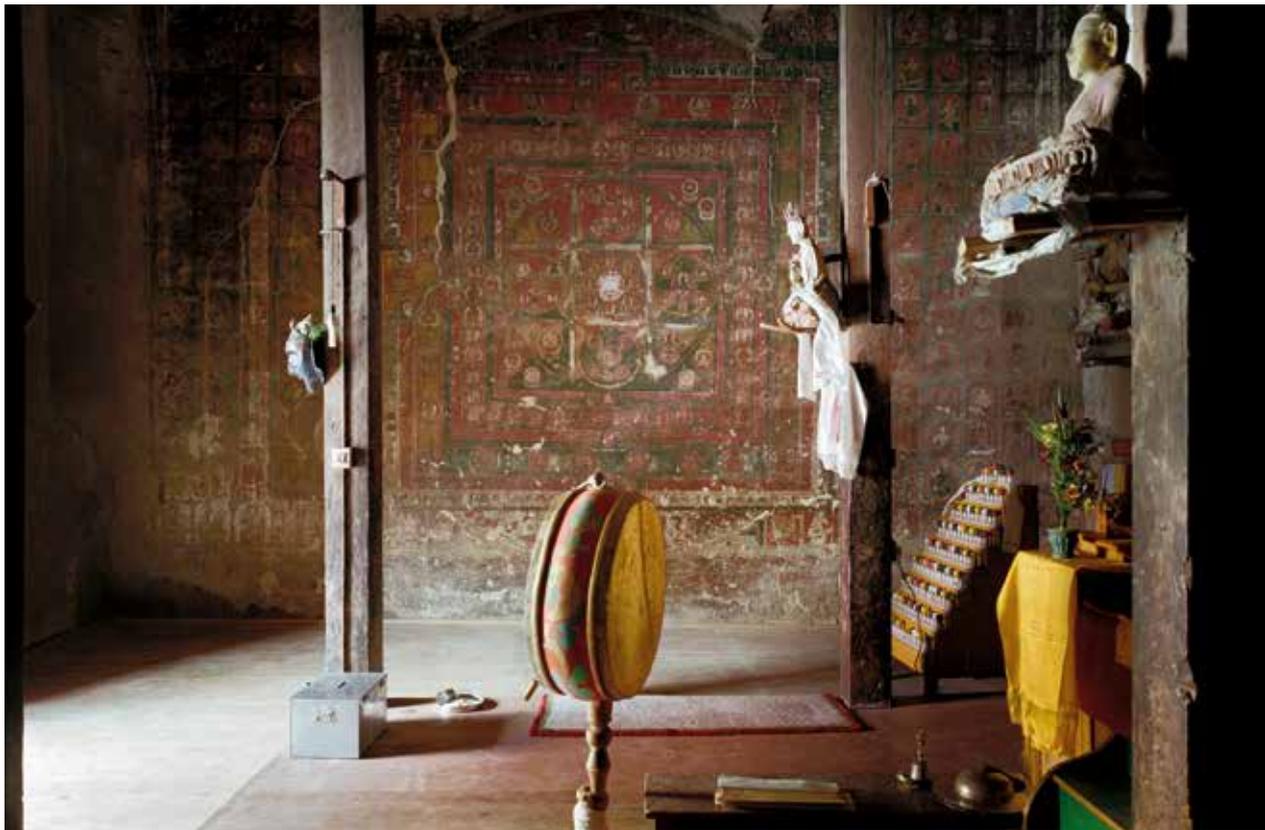
4 See contribution by Khosla, “Building Structure and Conservation of Roofs”.

5 See World Monuments Fund. Available at: <<http://wmf.org>>.

6 NAKO - The Nako Preservation Project, founded on January 30, 2014. Available at: <<http://athene.geo.univie.ac.at/project/nako/>>.

7 See contribution by Khosla, “Tempel Architecture of the Western Himalaya and Nako”.

8 See *ibid*.



ors. Our team⁹ assembled from Institute colleagues, students, alumni and allied specialists not only continued its involvement begun under the NRPP with the “Nako Project” until 2010 but also expanded the projected activities (Krist et al. 2010: 255-262). The monuments preservation “Masterplan” (for details see chapter 4.1) which had been conceived by Bacher and Krist for the practical implementation of conservation measures provided the authoritative guideline for the work to be undertaken on the sacred buildings and their decorations. The cultural and art historical importance of the entire complex and its utilisation as a “living cultural site”¹⁰ were central points in the preservation strategy, and the long-term work-input served to preserve this living cultural heritage in, and for Nako. As well as the extensive, labour-intensive conservation of the temples’ interior decorations, between 2004 and 2010 specific static and architectural preservation-oriented appraisals were undertaken (Höflinger 2008; Neumayer 2009), the thangka project was conceived (Holzer 2008; Skomorowski 2010), the establishment of a village museum was assisted (Griesser-Stermscheg 2010), as well as workshop and training activities focussed on building maintenance for the villagers and monks were organised (Gruber 2009).

On-site, the Nako Buddhist Society, the Hangrang Organization, the Nako Youth Club and the community of the villagers and monks all collaborated with each other. The Indian project partner was the National Research Laboratory for Conservation of Cultural Property Lucknow (NRCL) led by M.V.Nair. Successful cooperation among all the project participants demanded a constant willingness to compromise, flexibility in implementing internationally-acceptable conservation standards and guidelines, the not inconsiderable challenges of travelling to and the working conditions at such a remote area in the high mountain regions, coupled with the hopes of meeting the expectations of the villagers (Krist 2005: 472f.).

Working Campaigns

2004

The first working campaign of the team (12.6.-11.7.2004; E. Bacher, S. Beseler, M. Milchin, R. Renz, Ch.Tinzl) in summer 2004 focussed on condition reports and documentation of the temple complex. An appraisal was made to evaluate the general condition of the paintings and sculptures and the consequent urgent conservation measures for the interiors of the four temples were undertaken. The results of these appraisals provided the foundations for the detailed concept of the abovementioned Masterplan and were instrumental for formulating and realisation of further restoration campaigns. A second campaign in September of the same year (15.9.-3.10.2004; S. Kainz, K. Kohler) featured the preparations for the roofing reconstruction of the Lhakhang Gongma, directed by Romi Khosla and his team. Both these initial campaigns were financed by the World Monuments Fund (WMF) and the Austrian Science Fund (FWF).

2005

In May and June (9.5.-15.6.2005; S. Beseler, S. Kainz, K. Kohler, G. Krist, S. Olah), the Institute’s team undertook conservational and restoration “first aid” in the interior of the Lhakhang Gongma and its roof while the Indian team tackled the roof’s renovation. Uncovering and evaluating the polychromed wooden ceiling as well as the organising procedural strategy for the conser-

9 Complete list of all team members at the end of the contribution.

10 See contribution by Gruber, “Nako Village”.

vation of the painted wooden panels was a central feature of the mission. The same degree of priority was accorded to the restoration of the statue of the Prajñāpāramitā in the Lotsawa Lhakhang, which is of great religious significance to the villagers and had suffered badly as a result of water damage. The procedures were carried out in collaboration with a Buddhist sculptor.

Ernst Bacher died unexpectedly in April 2005; the work in Nako was wholeheartedly continued by the Institute of Conservation according to his "Masterplan".

2006

The first extensive working campaign in summer 2006 (3.7.-10.8.2006; T. Bayerová, S. Beseler, L. Gräber, M. Gruber, J. Kern, G. Krist, K. Mergl, M. Milchin, M.V. Nair, B. Müllauer, R. Renz, S. Sikka, Ch. Tinzl) was already under the aegis of His Holiness the Dalai Lama, who had promised to visit Nako the following summer to reconsecrate the temples. The Nako villagers were eager to be involved in the organisation and the construction projects surrounding this exalted visitor's sojourn: a new prayer house, a new meeting hall as well as a museum and a guesthouse were built.

This was the first time that the National Research Laboratory for Conservation of Cultural Property (NRLC) in Lucknow, the new Indian partners for the Nako project, collaborated with the Austrian team.

The main task facing the group was the conservation of the interior of the Lhakhang Gongma: cleaning and consolidation of the wall paintings and clay sculptures, as well as completing the conservation of the wooden panels. Furthermore, during this period the restoration work on the Prajñāpāramitā in the Lotsawa Lhakhang was completed.

In 2006 the FWF-Project "Scientific Study of the Artwork at Nako, India" (leadership of Gabriela Krist¹¹) was accepted, which dealt with the material technological research of the artistic interior decoration of the temple. The focal area of the research examines the painting materials as well as the earthen supports and provides a practical cornerstone for the development of realistically achievable, long-range preservation measures for the decorative elements of all four temples (Gruber et al. 2008). Marie Gruber (Gruber 2011) and Tatjana Bayerová undertook the research as part of their scientific and conservation sciences doctoral dissertations.

2007

A year later, the working mission (24.6-25.7.2007; M. Ban, T. Bayerová, S. Beseler, F. Flicker, M. Griesser-Stermscheg, M. Gruber, G. Krist, G. Lamprecht, U.S. Laal, G. Laal, B. Müllauer, H. Narain, G. Oberlechner, S. Olah, M. Pliessnig, K. Schmidt, S. Sikka, E. Skomorowski, S. Spornberger, Ch. Tinzl, M. Trummer) was totally geared to the forthcoming visit of H.H. the Dalai Lama who was to come to Nako in August to hold a series of Buddhist teachings for several days, which set the villagers into a state of near-frenzy. The Institute's team was asked to start with the restoration of the wall paintings in the Lotsawa Lhakhang, and was able to implement the treatment concept and the knowledge gleaned from the previous year's work in the Lhakhang Gongma, where, in the meantime, the work begun in 2006 was completed.

As well as the work on the Lotsawa Lhakhang and Lhakhang Gongma, the Institute of Conservation was happy to comply with a request to assist in establishing a village museum which was

11 The working title of the FWF-Project was "Comprehensive Scientific Study of the Support and Painting Materials Used at Nako Temple Complex, Himachal Pradesh, India, to Preserve its Unique Artistic Decoration"(L335-N19).

proposed and would be supervised by the Nako Youth Club (M. Griesser-Stermscheg, H. Narain).

As part of the events surrounding the visit of H.H. the Dalai Lama (21.-27.8.2007), an experts' seminar entitled "Himalayan Buddhist Culture: Problems and Possibilities" was held to discuss heritage conservation. This small conference brought together Indian and international experts to underscore the importance of the preservation of cultural heritage in the region using Nako as an example, as well as including perspectives on the development of sustainable cultural tourism. The restoration work completed to date at Nako's temples was the central feature in this discussion. The implementation of the conservation concept of preserving the ensemble and minimal intervention, which stands quite apart from comparable temple restorations in the region, was not only praised by the experts but was also accepted and greeted by the villagers. In 2007 film-maker Gundi Lamprecht accompanied the team of the Institute of Conservation to produce a documentary about the work on the Nako Gompa ("Buddhas Frauen im Himalaya"; "Close to Heaven"). The Austrian writer and film-maker Florian Flicker was also part of the team in the course of H.H. the Dalai Lama's visit, and reported on the situation during the events (Flicker and Krist 2007).

2008

The work schedule for the 2008 campaign (6.8.-13.9.2008; T. Bayerová, Ch. Chodry, L. Gräber, M. Gruber, A. Hackel, M. Höflinger, Ch. Holzer, R. Knaller, G. Krist, M. Milchin, B. Müllauer, M. Perwög, G. Pöllnitz, K.Schmidt, S. Sikka, E. Skomorowski, M. Trummer,) was, in contrast to the earlier missions, somewhat different. While the conservation work was mainly focussed on the temples' interiors during previous campaigns, this year featured repairs and improvements to structural issues and the buildings' exteriors. Thus, the roof of the Lhakhang Gongma was repaired again, the downspouts adjusted and the abutting areas renovated. Furthermore, attempts were made to repair the water damage in the Gyaphagpa Lhakhang (*rGya' phags pa lha khang*) and to conserve the wall paintings which had suffered as a result.

The restoration work on the wall paintings of the Lotsawa Lhakhang's north wall continued apace while in the Lhakhang Gongma the finishing touches were placed on the restoration

Fig. 220: Team of the 2008 Nako mission.



of large lacunae which had been filled. The interior décor now presented itself in a secured, homogenous and well-maintained appearance. In addition, the FWF-financed investigation into the painting material and the earthen supports continued while the research on the clay sculptures in the two large temples provided material for two pre-diploma projects (Pöllnitz 2009 und Perwög 2009).

As well as the treatments on and inside the temples, work on the new museum also proceeded. Nako's Buddhist community requested the Institute's team to examine and treat the monastery's and village's thangka collection. Two textile conservators from the Institute (R. Knaller, C. Holzer) directed the initial condition surveys of the 20 badly deformed Tibetan thangkas and treated them with conservational first-aid. At the same time, their storage area was improved. Within the framework of a diploma project selected thangkas underwent more extensive examination and conservation in Vienna, and benefited from the close cooperation between painting and textile conservators (Skomorowski 2010).

For the first time a specialist from the Technical University Vienna (M. Höflinger) joined the Institute's team on-site in Nako. His task was to survey the temples and to investigate the state of preservation of their structures.

2009

During the 2009 summer campaign (4.7.-15.8.2009; E. Götz, L. Gräber, M. Gruber, A. Hackel, S. Karacsonyi, S. Leiner, M. Milchin, H. Neumayer, G. Pöllnitz, K. Schmidt, E. Skomorowski, S. Spornberger, M. Trummer, B. Unterberger) work on the various areas of the two larger temples was finished: the completion of the cleaning, exposing and consolidation of the wall paintings in the Lotsawa Lhakhang as well as the treatment of the plastered surfaces. The focus in the Lhakhang Gongma was on the integration of the large lacunae in the plastered surfaces as well as the examination and partial consolidation of the wall paintings.

The presence of a Senior Conservation Architect (H. Neumayer) enabled the solving of diverse structural issues raised by the temples: in the Lhakhang Gongma und the Gyaphagpa Lhakhang problems with water infiltration were relieved by checking and improving the drainage. Additionally, all previous repairs to the temples were evaluated from the perspective of their ability to withstand earthquakes.

Alongside these projects, two workshops for the monastic and village community were organised which featured the themes thangkas and building maintenance (M. Gruber, H. Neumayer). Additionally, in celebration of 60 years of Austro-Indian diplomatic relations in 2009, the Austrian Cultural Forum in New Delhi initiated an "Anniversary Conference" (20.-21.8.2009) which was led by the Institute's team jointly with the National Museum Institute New Delhi (NMI). Under the heading "Cultural Heritage Counts. Research, Conservation and Management", Indian and Austrian specialists were invited to present their projects in the area of cultural heritage in India.

2010

The FWF-Project finally concluded in 2009 and so the mission ended. The subsequent year was used to finalise and complete the numerous and extensive scientific studies and research projects which made up the FWF-Project. Nonetheless a small team (H. Neumayer, G. Krist, S. Olah, K. Schmidt) travelled to Nako to discuss the unfinished projects and conservation work still required for the two smaller temples.

Fig. 221: Lhakhang Gongma, during conservation treatment 2008.

Fig. 222: Lhakhang Gongma, after conservation.





TEMPLE BUILDINGS AND THEIR DECORATION

General Comments on the Temples

The Nako temples are part of a complex group of historically-evolved structures. The buildings were erected on a gently rising stone outcropping at the end of the village. On one hand this siting offered sufficient isolation for the monks then living there, on the other hand it is also highly likely that geomantic considerations were part of the placement. The monastic complex is situated in front of a massive backdrop of mountains and thus in direct connection to the peaks of the sacred mountains Leo Purgyal und Reo Purgyal, the residences of two local deities. It should not be overlooked that the temple Karchung Lhakhang (*dKar chung lha khang*) is dedicated to Reo Purgyal, one of these gods (Klimburg-Salter 2007).

The four temples—Lotsawa Lhakhang, Lhakhang Gongma, Karchung Lhakhang and Gyaphagpa Lhakhang—are set in the corners of a central court and have their entrances facing each other. The court measures 25 x 10 m with a total area of 250 m². Originally, the court had an earthen ground which had been replaced with slate over the course of time. The exact order in which the individual buildings were erected is unclear. However, it is assumed that Lhakhang Gongma was built before Lotsawa Lhakhang, which might be explained by its more elevated location and its long-term designation as the main temple (Klimburg-Salter 2003: 39). Both major temples are flanked by a smaller temple on their south sides. Somewhat set back, next to the Lotsawa Lhakhang and standing out not only because of its colour, is the Karchung Lhakhang, the White Temple. Also situated on a slight rise, next to the Lhakhang Gongma is the Gyaphagpa Lhakhang, in front of which the only chorten within the temple complex was set.

Seen from outside, the flat roofs give the impression that all the temples are of the same height. However, once inside, one notices that this illusion is merely a creation of the inclining ground, as their heights vary. Generally, the buildings are between 5 and 6 m high, depending on the entrance level.

All the temples have a very plain, flat exterior without decorative elements. The buildings have been erected in the traditional earthen construction manner, which is unusual, given the regional tradition for rubble stonework. The smooth walls made of Adobe blocks are interrupted only with a horizontal connection beam which provides structural stability in case of earthquakes, and a simple wooden entrance door. The stone buttresses at the temples' corners are secondary additions, serving only as supports and extra protection to the buildings against earthquakes. The temple buildings are examples for the use of earthen building materials and demonstrate also native construction techniques with wooden support structures to improve the stability within these fragile edifices made of earth.

Over the course of the years during which the team from the Institute of Conservation was active in Nako, a variety of alterations and reconstructions inside the temple court could be observed and documented. New buildings including a meeting hall were added and others, such as storage rooms and a kitchen, were torn down. Furthermore, the look of buildings outside of the temple area has changed: old houses in the immediate surroundings have been levelled to make way for a new road and the village school (Klimburg-Salter 2007a: 9).

Nonetheless, the temple complex itself has preserved much of its original form and significance (see figs 5, 6 and 35).

Lotsawa Lhakhang

Construction

Standing at the northwest side of the complex, the so-called Lotsawa Lhakhang, also known as the Translator's Temple measures c. 12.6 by 10.4 m as a rectangular floorplan and is c. 5.8 m high, making it the largest building of the group (see fig. 60). The thickness of the walls varies between 70 and 100 cm.

As the name indicates, this temple is dedicated to the Great Translator Rinchen Zangpo (Rin chen bzang po), who was instrumental in the spread of Buddhism in Northern India and Tibet in the 10th century. He was not only responsible for founding numerous monasteries, but many translations of Buddhist texts from Sanskrit into Tibetan have been ascribed to his pen.

As mentioned earlier, the temple was built in the traditional earthen construction technique. The foundations are large river stones cemented together with earthen mortar. The walls of unfired Adobe blocks set with earthen mortar rise up directly on top. The exterior surfaces of the walls are treated with a layer of earthen render and completed with a coloured coating. Here local building materials, including *tua*, *tava* and *sassa*, were used (Gruber 2011). These regional soil varieties are sieved to different grades, depending on their use, sometimes with additions of straw and then worked according to whatever was required¹². Atop the weight-bearing beams which have been worked into the upper part of the masonry and which are borne on capitals anchored into the wall sits a traditional flat roof.

The stones in transitional area to the roof were probably inserted as fillers in the course of repair works (see figs 61 and 62).

One enters the windowless temple, which today has sunk to around 17 cm below the level of the courtyard, over two steps and a small, simple wooden doorway. It is only upon entering the interior space that one perceives the complexity of the building, which could be based on a three-dimensional mandala with four columns, arranged in a square in the centre of the main hall (Klimburg-Salter 2007a: 10). At the rear is an apse flanked on both sides by small niches. To the left is the Gonkhang chapel which contains the portrait of this patron deity. On the right side is a similar structure but which is not accessible.

About 1 m from the right corner of the interior space, the entrance wall (east wall) has a noticeable ledge and projections, which could indicate differing construction phases, possibly result of repairs after damage (Neumayer 2009: 25).

Wall Paintings

All four walls of the Lotsawa Lhakhang (see figs 63-66) are decorated with high-quality, miniature-like paintings, some of which date back to the earliest period of the temple and which create a spatial artistic unity¹³. More specific information about the technical structure, the pigments and painting techniques used as well as the reworking of the individual images is covered in Bayerová's contribution¹⁴.

It can be ascertained that the wall paintings underwent a total of three decorative phases as well as four renovation phases which more or less follow the same structure¹⁵. Two differ-

12 See contribution by Gruber, "Learning from the Material".

13 For the iconography of the wall paintings see contribution by Luczanits, "The Nako Monuments in Context".

14 Contribution by Bayerová, "Insights into the Painting Materials and Techniques".

15 A detailed charting was undertaken during the summer campaigns 2007-2009.

ent layers of plaster were applied to the Adobe wall: one with a substantial addition of straw, which acted as the rough base and which evened out the wall surface. The second layer was the finer plaster, a thinner application of more compact and smoother consistency. This layer formed the base for the final gypsum ground onto which the paintings were made. Furthermore, different preparation techniques could be identified, including incised compass lines, snapped lines and red underdrawings.

High-quality mineral pigments were used for the paintings, which produce a strong glow of clear, brilliant colour. An animal glue was used as binder. All the wall paintings were executed in *secco* technique¹⁶.

The paintings on the south and north wall in the Lotsawa Lhakhang are the best preserved, especially those of the first and second decorative phases of the entire temple. Painted in a red and blue colour scheme, their special features include ornamental decorations in the shapes of sculptural medallions with applications of silver and gold metal. This style of decoration has not been found at any of the other temples.

Traces of different phases of repainting can be found on the south wall, largely in the area abutting the roof and in the lower half of the mandalas. Stylistic and technical variations in execution are clearly recognisable. The mandala on the north wall has substantial alterations along a central drip stain which indicates a complete reworking of the centre up to the first quadrant. Here too the attempts of the painter to orient himself to the lost original and to follow the earlier traces are clearly visible. Furthermore, in the lower left corner one sees traces of another restoration phase in the mandala's central deity as well as more recent attempts to consolidate the surface only with mortar. These improvements aimed to secure the decoration and were usually undertaken in the area beneath the roof and along large cracks caused by static problems.

The east wall with the entryway is considerably different from the miniature-like paintings of the older phases and would appear to be of more recent origin. It seems to be an old repair to some massive damage. Possibly there is some connection between the overpainting inside the Lotsawa Lhakhang and the paintings in the other temples. In comparison with the original paintings, the work in this phase is considerably coarser and cruder. Fragments of the original paintings, some even with gilding, have been preserved in the lower left half of the wall.

Due to the gradated apse, the west wall is made up of five sections. All three walls behind the sculptures in the apse were originally covered from the floor to the ceiling with wall paintings from the earliest decorative phase. Today, this original work only survives in very limited areas of the lower section of the wall, while the middle and upper sections have been completely overpainted. Here it is also clearly visible that this overpainting itself is the product of various periods, and therefore the overall appearance of the apse is quite heterogeneous (Krist 2007 and 2008).

Sculptures

A total of six statues, firmly anchored into the temple walls, are part of the sculptural decoration of the Lotsawa Lhakhang (see figs 67-71). Five are mounted symmetrically on three walls of the apse and the presumably oldest, the *Prajñāpāramitā*, is attached at the left on the west wall. It can thus be assumed that originally a matching statue was mounted to the right of the apse, to pair with the *Prajñāpāramitā*, which is lost today. There are unmistakable losses of plaster and paint surface on the wall.

In the apse niches are four polychromed statues, anchored into the wall on average at 2.1 m above the floor. Additional stability for three of the statues is provided by a pillar coated in clay. From left to right, the deities are in the colours green, yellow, white, red and blue. Each statue, with the exception of that in blue, is thematically connected to a mandorla which is integrated into the painting on the apse wall.

The two-armed male deities sit on a double lotus with crossed legs. Their bodies are richly adorned with various strings of beads, ear jewellery and a five-pointed crown. All the figures wear simple leg coverings; a three-dimensional sculptural frame is mounted around the central, white deity.

The statues have been built up with numerous layers of different kinds of clays mixed with organic additives. The internal supports are variously sized pieces of wood. This armature is first covered with a thick, coarse layer of clay (1 to 2 cm), which is wrapped with straw, on top of which is another 1 cm thick coating of clay. This in turn is overlaid with a c. 0.5 cm layer of finer-grained clay, onto which the ground for the paint layer and the paintings are applied. Presumably all the clay sculptures were continually reworked, as indicated by the varying degrees of delicacy with which the hands and faces are handled. In general it can be stated that all the statues have numerous paint layers and therefore different phases of polychromy. The current, most recent paint layer can be perceived as a secondary treatment (Pöllnitz 2009).

Another sculpture ensemble mounted on the left west wall is that of the Prajñāpāramitā (fig. 166). This larger-than-life seated figure is surrounded by a decorative frame (total height 1.90 m) and is anchored in the wall above the entrance to the Gonkhang's chapel at a height of c. 2 m. The frame itself has no connection to the statue but is attached to the wall by means of numerous wooden dowels. Like the sculptures in the apse, the two-armed deity sits cross-legged on a double lotus. Her body is richly adorned with representations of various strands of beads and a five-pointed crown with integrated ear decoration, and she is surrounded by a symmetrically-ornamented frame¹⁷.

The technical structure is similar to the statues in the apse and has already been described. Only the delicate connective elements of the frame are formed of twisted and plaited vegetable fibres and have been partially wrapped with printed papers.

The Prajñāpāramitā's visible polychrome layer is yellow with accents in red and blue. However, examinations have indicated that this figure is overpainted. The original first layer was gilding. The second paint layer visible today was added at the same time as the frame, which has only one paint layer too (Beseler 2004b:15).

Ceiling Construction

The Lotsawa Lhakhang was given a traditional flat roof, constructed as follows: a wooden ceiling comprising of individual wooden panels was topped with an insulating layer of birch bark which in turn was covered by a c. 30 cm-thick outer layer of strongly compressed mud to protect against water infiltration (Kohler 2006a: 27). The entire roof is primarily borne by the four earthen walls on which it rests, supported by six wooden pillars standing in the temple's interior (four rectangular and two round posts). The rectangular posts divide the main space into thirds up to the apsis in both directions, while the round ones are placed 0.7 m from the wall at the transition from the main space to the apse. Above the pillars are decorated capitals which are immediately below the main beams, which run parallel to the entrance wall and

17 For a description of the iconography of the statue's decoration see contribution by Luzcanits.

which are fixed into the exterior walls through the entire thickness of the wall (Neumayer 2009: 36). Rafters, also firmly anchored in the wall, are set across these. The roof surface is thus divided into a number of small segments which are closed by boards resting directly on the rafters. These wooden boards are finished on the *recto* and show traces of an earlier polychromy like the capitals.

The ceiling paintings which are found in the Lotsawa Lhakhang are attributed to the earliest decorative phase, and depict illusionistic representations of textiles in glowing colours and numerous patterns which are intended to imitate banners stretched across like a sort of canopy (see fig. 142). The original ceiling painting is of the highest quality, both in its motifs and execution and is very similar in depiction and technique to the early wall paintings.

Complex figurative and floral elements such as overlapping circles, stylised trees, lotus medallions, mythical creatures, etc. were set inside geometric shapes. The outlines are accentuated in dark hues and give the whole image a graphic character; indeed, the design is reminiscent of Indian cotton textiles from Rajasthan and Gujarat (Papa-Kalantari 2000: 5ff, see also contribution by Kalantari "For Merit and Mediation. Form and Meaning of Ceiling Paintings at Nako"). A second decorative phase in the Lotsawa Lhakhang can be seen in the completely renovated decoration of the ceiling. It covers a larger area than the previous painting and extends over several segments. This decorative concept was, however, changed and today survives only in fragments. The subsequent decorative phase featured some painted and some unpainted planks as additions (Kohler 2006a: 17-26).

Lhakhang Gongma

Construction

Directly opposite the Lotsawa Lhakhang at the north east side of the court is the Lhakhang Gongma, also called the Upper Temple, possibly because at 2.3 m above the level of the plaza, it lies higher than the Lotsawa Lhakhang. Its near-square floorplan measures 7.4 by 7.4 m at a height of 5.4 m; the wall thickness at the base can be measured to 70-80 cm (see fig. 74). This temple is also constructed similarly to the main temple: ascending a series of steps one enters the windowless space through a 1.5 m high wooden door. The interior space is divided by four centrally placed wooden columns (see figs 75-78).

Finely-wrought paintings on all four walls decorate the temple, along with statuary on the east wall as well as painted wooden ceiling panels (for details see contributions in this book by Luczanits, Bayerová and Kalantari).

Wall Paintings

Also extensively ornamented with very finely-executed paintings with numerous individual scenes on all four walls, the temple's decoration can be placed to the middle of the 12th century (Luczanits 2003b: 53, 2004: 88).

The technical construction of the walls is also identical with that described earlier for the main temple: Adobe masonry with earthen grouting, the coarse earthen plaster with added straw, the final plaster, earthen slurry onto which a gypsum ground and paint layers are applied.

The pigments used, the animal glue as binder and the *secco* technique are the same as described in the Lotsawa Lhakhang. However, in contrast to the Lotsawa Lhakhang the paintings are even more detailed and more delicately worked, finished with reddish and yellowish glazes.

No traces of silvered or gilded relief work have been found, only some gilded accents in the representation of the Green Tārā on the east wall. There are also smaller deities on the south wall executed in delicately-coloured *impasto* decoration (Bayerová and Gruber 2008: 12).

This period of decoration can definitely be connected to the decorative phase one and two in the Lotsawa Lhakhang. However, the painting in the Lhakhang Gongma has some slight differences in the details which speak for a different hand.

The south wall is ornamented with a mandala which extends the entire height of the wall, and which is flanked at each side by garlands and figurative images. Here too one can see traces of overpainting in the various problem zones; in some parts the historic original surface is no longer visible. Marked by heavy surface losses, the area near the ground bears traces of reworking. Other repairs with and without overpainting are largely concentrated in the areas of the network of cracks as well as the wall/ceiling join.

These also characterise the appearance of the east wall. However, despite the massive interventions there still remains a considerable amount of substance from the original decorative phase. Characteristic motifs include plants between the figural representations and the unique image of the Green Tārā under the Prajñāpāramitā. As on the south west wall opposite, the decorative phase is determined by a wall-high mandala with the central deity Vairocana dominating the space. Rich ornamentation and entwining foliage in a style already familiar are also part of the décor. Heavy losses of the surface on the north wall are particularly severe and mar the appearance of the surface. Fragments of historic reworkings can be found in these very areas. A similarly serious loss of earthen substance and painting are to be seen on the west wall. There are very few areas in which the painting of the original decorative phase has been completely preserved. The renovation phases are limited, as on the other walls, to the problematic areas and in some cases overlap the older paintings to a greater or lesser degree (see figs 80-83).

Sculptures

Additionally to these fragmentary preserved wall paintings, a group of sculptures adds significantly to the importance of the temple's interior, particularly the east wall. A centrally-placed female deity, Prajñāpāramitā, is surrounded by a frame-like structure which is flanked on the left and on the right by a group of four Buddhas (see the Buddhas on figs 84-91 and Prajñāpāramitā on fig. 164). A female deity surrounded by eight Buddhas represents an iconographic rarity and one can assume that the ensemble was part of the original furnishings. An additional statue, the Green Tārā, is mounted on the southwest pillar (fig. 79). Remains of an anchoring on the opposite northwest pillar hint at the possibility that there might once have been a companion statue. A similar situation is to be found at the entrance (west) wall, where the remains of a wooden anchor and the painted mandorla behind it suggest that there must have been two more statues, possibly so-called "watchmen," who would have stood at the left and right of the entry.

The central female deity is seated cross-legged on a double lotus. Her body is bejewelled with various bead-like chains and a five-pointed crown with integrated earpieces. She is en-framed by a three-dimensionally sculptural border which is very similar to the frames surrounding the Prajñāpāramitā and the Vairocana in the Lotsawa Lhakhang. Each of the eight Buddhas is also seated cross-legged on a single or double lotus. With the exception of one statue, which is covered with a dress, they all wear a shoulder toga, and are unmistakably identifiable as Buddhas with their distinctive hairstyle and the long earlobes, as well as the

variously gesturing hands (mudras). Each of the nine statues correlates to a mandorla integrated into the wall painting behind it.

The technical execution of the sculptures is exactly like those in Lotsawa Lhakhang, and therefore does not need repeating here. The coloration in shades of yellow, red, blue and white is also the same, as is the anchoring with wooden dowels, and the armature typical for statues of its kind¹⁸.

Thoroughgoing scientific examinations reveal that the current polychromy of the sculptures is secondary and like the paintings to their rear was done at a later date. Altogether two phases of polychromy were found. The original appearance of all the sculptures was an all-over gilded surface. The procedure followed prototypical steps for all the objects: the earthen plasters were covered by a gypsum ground, a thin layer of orpiment and vermilion and then the gold. In a later renovation phase this was covered with a mud layer of varying thickness, which was the ground for the paint layer we see today (Perwög 2009).

Ceiling Construction

Like the Lotsawa Lhakhang, the Lhakhang Gongma also has a traditional flat roof, built as follows: on top of the wooden ceiling, which comprises of individual wooden panels was spread a layer of birch bark, on top of which a c. 30 cm layer of strongly compressed mud was applied, to serve as the exterior and as protection against water penetration (Kohler 2006a: 27). The entire roof is primarily borne by the four earthen walls on which it rests plus the additional support from four wooden pillars (two square and two round). The square columns halve the space parallel to the entrance, and divide this space into thirds in the perpendicular. The round columns were placed later c. 0.9 m from the east wall and provide additional support. Atop of the columns are carved and painted capitals which abut the main beams which run parallel to the entrance wall and which are embedded into the exterior walls through the whole thickness (Neumayer 2009: 56). Rafters, also anchored firmly into the masonry, lie across the beams, dividing the surface of the roof into a grid which is covered with boards. On their visible side the boards are painted. The original ceiling painting, like that which survives today in the Lhakhang Gongma, imitated historic textiles in brilliant colours and a myriad of patterns (see fig. 249). As if they had been spanned across the rafters, each section appears to be an individually designed length of cloth. These are important testimonies to the early textile arts and industries in India and Central Asia (Papa-Kalantari 2004:1). Furthermore, the overall impression of the different textiles or their patterns creates the illusion of a canopy; this impression is heightened by the painted valance which makes the transition from ceiling to wall painting (Papa-Kalantari 2000: 5ff).

The original boards, which are attributed to the Lhakhang Gongma are similar to those in the Lotsawa Lhakhang, though much simpler. Again, ornamental patterns adorn the imitated textiles. The execution appears to be less elaborated and the numerous colour contrasts and shades seen in the main temple are more subdued (Kohler 2006a: 20ff.).

As can be ascertained in the wall paintings and sculptures, the ceiling paintings also underwent different decorative phases and renovations extending from the 12th to the 19th century. Common to all these phases is a painting technique extending across all the boards, so that one must assume that the painting was applied *in situ* after the completion of the wooden structure (Kohler 2006a: 19).

¹⁸ Similar mounting systems for unfired clay statuary can be seen in the monastic complex of Tabo.

Karchung Lhakhang

Construction

The somewhat smaller temple in the southwest corner of the complex is known as Karchung Lhakhang or the White Temple, with its almost square floorplan 5.8 by 5.8 m at an overall height of 4.7 m. The thickness of the walls has been measured at c. 70-80 cm at the base, and 50-60 cm at the abutment to the roof (fig. 101). This temple is dedicated to the local patron deity Yul lha, who, it is assumed, resides on the peak of the Reo Purgyal mountain.

Built on an elevated platform, the construction technique of this temple is the same as that of the other buildings. Atop a rubble stone foundation, the walls are built out of Adobe blocks with earthen mortar. The exterior walls were covered with a coarse render which was painted white.

This temple is also entered over some steps—as the entrance is 1.1 m above the level of the piazza—through a wooden door. What makes this doorway noteworthy is its elaborately carved surround, which in the Nako complex is only encountered in Karchung Lhakhang and which is described in detail in Ziegler's contribution in this book.

The temple's interior walls were covered with the same layered system of coarse and fine earthen plasters, on which a gypsum ground was spread to serve as a support for the painted decoration¹⁹. The upper part of the masonry embeds the weight-bearing ceiling beams which are supported by capitals anchored in the wall; above them is the traditional flat roof (see figs 102-104).

Wall Paintings

The wall paintings visible in the Karchung Lhakhang today date much later than the 12th century, though examinations have shown that the decoration of this temple too is the result of various periods (see figs 106-109).

On the east wall the painting resembles that in the Gyaphagpa Lhakhang both in colouration and style. The characteristic brushwork seen on the south and north wall is quite different from the rest of the original décor of the 12th century in both Lotsawa Lhakhang and Lhakhang Gongma and also from the wall paintings found in the Gyaphagpa Lhakhang. The painting seems coarser and not so refined and developed.

The colours seem less brilliant and vibrant than the colours in the two temples described earlier. Mainly various shades of blue, red and green were used. In contrast to the Lotsawa Lhakhang and Lhakhang Gongma, in the Karchung Lhakhang no raised or *impasto* relief decorations or subtle finishing glazes could be found. A few gold-coloured accents were ascertained in some areas of the north and south wall; they appear to have been used on the jewellery which adorned the images of the deities (Bayerová and Gruber 2008: 18).

Ceiling Construction

As in the Lotsawa Lhakhang and Lhakhang Gongma, this one is also furnished with a flat roof. The entire roof is largely borne by the four earthen walls on which it rests plus the additional support from two round wooden columns. These halve the space parallel to the entrance, and divide it into thirds in the perpendicular. Atop of the columns are ornamented capitals supporting the main beams which run parallel to the entrance wall and which are embedded into

¹⁹ For details on the paintings see contribution by Bayerová.

the exterior walls through the whole thickness (Neumayer 2009: 56). Rafters, also anchored firmly into the masonry, lie across the beams, dividing the surface of the roof into a grid which is covered with boards. These are polychromed on one side. The ceiling painting in the Karchung Lhakhang was done in a later phase than that of the Lotsawa Lhakhang and Lhakhang Gongma (see fig. 105). It particularly orients itself to thangka painting and most likely dates from the 13th-14th century. The painting represents a symmetric composition in which the central figure is surrounded by floral, mostly lotus-type plants in which other figurative elements are incorporated. Some of the motifs from earlier periods as found in the main temples, e.g. overlapping circles, are used and re-interpreted (Papa-Kalantari 2004:4).

Gyaphagpa Lhakhang

Construction

The second, somewhat smaller temple in the Gompa complex is the so-called Gyaphagpa Lhakhang which is located in the southeast corner of the piazza. This building also has a near-square floorplan of c. 4.70 m length at a height of 4.40 m. The wall thickness measures 80 cm at the base, and varies from 50 to 80 cm at the top (fig. 92).

As in the other temples, one enters through a modest wooden door and over a few steps as the entrance is 2.30 m above the piazza. The building is set into a hillside, i.e. the back of the temple is positioned into the slope c. 1.40 m deep.

Set above the level of the piazza, the construction method of this temple is consistent with that of the other buildings. A foundation of rubble stone supports the walls, which were also constructed of Adobe masonry cemented with earthen mortar. Though the Gyaphagpa Lhakhang is the only temple, in which part of the masonry was erected of rubble stone—the east wall is constructed from stone up to the half of its height. On the exterior, the temple was coarsely rendered and painted red. The interior walls were covered with a layered plaster system, coarse and fine, over which the gypsum ground serves as the support for the painted surface²⁰. The weight-bearing beams, resting on capitals mounted in the wall, are embedded in the top part of the masonry. The traditional flat roof lies on top (see figs 93-96).

Wall Paintings

The identical structural technique used for the wall paintings in the other temples is also found in the smallest building: Adobe masonry with earthen plaster, a thick layer of coarse, then a fine coat, the gypsum ground and finally the painted surface.

All four walls have paintings, which have been extensively reworked and are considerably later than the initial 12th century decorative phase of the Lotsawa Lhakhang and Lhakhang Gongma. Fragmentary remains can be found under the currently visible surface.

The painting style differs significantly from that of the initial period in the Lotsawa Lhakhang and Lhakhang Gongma: the execution is far coarser, not as sophisticated and much less detailed than that done in the 12th century.

The colours are also not as brilliant and vibrant; the palette has shifted to warmer, more sober hues dominated by light blue, earthy red and ochre tones. Furthermore no raised work, *impasto décor*, silvered or gilded accents have been found on the wall paintings (see figs 97-100).

CURRENT CONDITION

General

The state of preservation which is found at all four temples of the Nako Gompa is tightly bound to the use of earth, rubble stone and wood as the building materials. The interaction of numerous factors, which are evidently constantly at work are governed by a chronological sequence.

However, the point of departure are always the building materials and their own characteristics followed by the construction method used, but the geographic location and the climatic influences also play important roles for creating specific kinds of damage.

Causes of Damage and Deterioration

Building Materials

Thanks to their ease of availability, the low primary energy content of the raw materials and the possibility for re-use, earthen building materials are cost-efficient and sustainable. However, the positive structural physical characteristics of earthen building materials, i.e. their ability to regulate humidity, insulate heat and absorb pollutants are balanced by massive material shortcomings which include low to no water resistance, drying shrinkage and relatively low strength values (Minke 2009: 11). Therefore, specialist knowledge and a craftsman's experience are imperative in the production and utilisation of earthen building materials, as both in the expert preparation—such as in soaking, slaking, crushing and blending, sieving, aging, slurring and reducing binding media (see Minke 2009: 56-59)—as well as the knowledge about which additive—including animal and vegetable products, synthetic organic materials as well as mineral binders (see Minke 2009: 42 f.)—are appropriate for improving certain structural characteristics (this applies to both fresh as well as to set mortar qualities). In other words, earthen building materials can be “tuned” for specific applications, given the necessary skill and experience (Gruber 2011: 83). This is a factor that, apart from all the other causes of damage resulting from the actual earthen material itself, cannot be ignored, also at the Nako temple complex. Even when one assumes that knowledgeable craftsmen were employed for building the temples, the origins of some of the damage occurring much later could certainly have been engendered at the time of construction.

Neglected or Improper Care

As mentioned earlier, the qualities of earthen building materials can be optimised and their weaknesses compensated by using construction methods adapted to regional conditions; the combination with other building materials plays an important part, as it did in Nako. According to Neumayer²¹, from an architectural engineering perspective this creates ideal conditions for erecting efficient, safe and enduring buildings out of the material earth.

Nonetheless, it should never be forgotten that earthen architecture requires constant, experienced care, cyclical renovation and maintenance from the time it is built, in order to guarantee its enduring preservation.

Houben and Guillaud assert that today, the lack of care or improper upkeep ranks among the leading damage factors for earthen architecture. They perceive that in regions with a tra-

21 Verbal communication, Dipl.Ing. Helmut Neumayer, Nako 2009.

dition of earthen buildings, their care is seen as an old-fashioned technical handicap (Houben and Guillaud 1989: 245). The arrival of modern industrial building materials to areas of traditional earthen architecture brought with it a general image problem for earthen buildings and their historic techniques of construction and maintenance (Gruber 2011: 85). This thesis can be verified according to the examinations made over the last decade on buildings in Nako: traditionally built buildings and the necessary maintenance were abandoned in favour of new structures built with modern materials. Furthermore, today there is no craftsman left in Nako with the necessary experience and know-how to undertake the upkeep of the old buildings (the only available craftsman lives in a neighbouring village), so that urgent repairs are made with modern wares (tin roof at Karchung Lhakhang). In the case of the Nako Gompa, neglected and incorrect measures for care and upkeep, and the resultant damage were also caused by years of disuse by the Buddhist monastic community²².

Environmental Conditions

Chiari lists the following main causes of damage to earth: water, earthquakes, wind, cosmic rays, salts and biological factors (Chiari 1983: 35 f).

a) Water and humidity

“Water is bound to the solid components of clays in different ways, especially to the clay minerals, and thereby governs its consistency. Depending on the amount of water added, clay can assume conditions ranging from runny, malleable, semi-solid and hard. As earthen building materials physically harden merely through the drying, the evaporation of the added water necessary to their preparation, they remain water-sensitive. (...) Earthen building materials acquire solid material characteristics without the occurrence of a chemical reaction: their regulative compensatory “buffering” qualities resulting from the porosity in regard to humidity and temperature, and comparatively low solidity are characteristic. Untempered, unprotected earthen building materials are not waterproof, which also explains why water represents one of the leading damage parameters for earthen buildings.” (translated from Gruber 2011: 83-84)

b) Soluble salts

Is a building with a damaged or without horizontal water proofing against groundwater situated in a ground touching field, soluble salts from the ground or the material itself are transported in the Adobe walls by capillary rising moisture. The pore water evaporates on the wall surface, the salts remain and accumulate in the pores. During the process of crystallisation the salts expand their volume which leads to a decline of structural stability of the adobe material. As a consequence, different damage from material weakening up to material break up can occur (Schroeder 2013: 358).

c) Mechanical impacts

As a building material, unfired earth has no sufficiently stable three-dimensional structural conditions, so that it is also malleable without moisture, which means that earthen materials have low solidity characteristics. This inherent material weakness means that earthen buildings are very sensitive to external mechanical influences.

²² According to Klimburg-Salter the monastery had been abandoned early in its history, see Klimburg-Salter 2003:42.

d) Natural and climatic environmental factors

Risks of damage for the temples in Nako which should not be ignored are the natural and climatic environmental factors, which is why they will be discussed separately here.

The village and its temples are located in a very seismically active zone. The frequent earthquakes are caused by the lively activity of the Indian and Eurasian tectonic plates, going back to the formation of the mountains and the buckling of the Himalayan range. Thus, from the time of its construction, the temple complex has been endangered by quakes, the most severe of such recent natural catastrophes in the Spiti region was in 1975. This earthquake caused severe damage to the building substance in the village and the Gomba's significant temple buildings (Klimburg-Salter 2003: 42).

The increasing climatic changes of the last few decades can also be defined as damage factors. The climate of the high-altitude mountains can be characterised as cold and dry. The Himalayas function as a climatic barrier which blocks the arctic winds from the north from reaching the south, and at the same time extensively blocks the moist monsoon winds coming from the Indian subcontinent in the south. However, over the past years a noticeable increase in the amount of precipitation has affected Nako. Sikka and Draganits point to the climate changes since 1900 in the Spiti region. A trebling of the measured rainfall in the Western Himalayas since 1900 region is noteworthy. Sikka attributes this regional climate change to glacial melting and general global warming (Sikka and Chaudhry 2009; Draganits 2000: 4).

These unusually heavy and lengthy rainfalls during the last years have made the issue of water as a damage factor for Nako and its earthen buildings acutely alarming.

Summary

Gruber was able to examine and confirm the influence of the abovementioned causes of damage to the Nako temple complex based on visible damage *in situ* followed by laboratory analyses of selected samples (for detailed results see Gruber 2011: 162-7). As well as the damage caused by earthquakes and their results, it was ascertained that the permanent presence of water and/or moisture and soluble salts are active factors which contribute to the current situation at the temples.

In the case of Nako, the harm to the buildings illuminates the limitations of the materials used in their protracted interplay with the environmental conditions. The question of whether or not damage is either structurally or materially based or a result of particular external factors cannot be definitively answered. "Rather, the earthen building materials of the temples, the architectural construction and the influences of the environmental conditions are part of a complicated, ever-changing interrelationship." (translated from Gruber 2011: 87).

Damage

The causes of damage and deterioration described, and especially the widely varying environmental conditions led to alterations on the temple buildings which today, as a result of many different issues have become aggressively noticeable in the interiors. The aging and destructive processes have caused alterations to the materials which are seen in a variety of "injuries".

These phenomena and the present damage were conservationally examined and documented photographically and graphically²³.

23 Initial results of the examinations by the Institute of Conservation 2004 (see Krist 2004). The extensive documentation was undertaken within the framework of the FWF-Project "Scientific Study of the Art-

Fig. 223: Cracks in the north wall in Lotsawa Lhakhang.

Fig. 224: Cracks and lacuna on the shoulder of a Buddha statue, Lhakhang Gongma.

Fig. 225: Losses of pastiglia, south wall in Lotsawa Lhakhang.

Fig. 226: Flaking on the north wall in Lotsawa Lhakhang.

Cracks

This injury is to be found in all four temples and sculptural work in more or less large degree. The cracks in the walls, which range in width from fine hairline cracks up to several centimetres are generally the result of earthquakes (fig. 223). The depth of the cracks also varies widely, from a few millimetres into the earthen plaster layer up to very deep fissures which extend into the masonry. Typically these static cracks begin at the point where the beams rest on the wall and continue down to the ground, and are caused by the beams sinking into the walls. Subsequently cracks start at the corners, initiated by the walls tilting outwards. Both kinds of crack have created a more or less well-developed network.

As well as this system there are also typical structures of horizontal cracks, which can be localised at different heights and only affect the layers of plaster and paint and are the result of settling of the wall substance (Krist 2007, 2008, 2009)

Cracking occurs on the sculptures largely in areas in which the figure itself is instable, where the unfired clay reacts to stresses in the joints by forming cracks (fig. 224) (Perwög 2009: 56-60; Pöllnitz 2009: 30-7).



Holes, Lacunae and Flaking

As the walls shifted apart, large, very deep holes occurred in the upper corner areas of the temples, leading to whole blocks encompassing all the layers of masonry breaking away.

Many parts of the coping are missing, particularly in the areas on which the ceiling beams rest due to the sinking of the whole ceiling structure. Numerous lacunae have been created along the entire crack network; their size and depth varies from one centimetre up to several square metres, as well as from several millimetres to several centimetres deep. The separation of plaster or paint layers is largely responsible for these losses.

Flaking of the fine plaster, often including the ground and paint layers (figs 225 and 226), is another form of damage, which occurs quantitatively most often, particularly at the edges of the walls and in areas near the ground (Krist 2007, 2008, 2009).

Furthermore, large-scale losses near the ground (e.g. in the apses of Lotsawa Lhakhang, Lhakhang Gongma, Gyaphagpa Lhakhang) are attributable to the rising damp as can be seen on Figure 230 (Krist 2009: 10). Lacunae on the sculptures are found only in those areas with severe cracking or cracking networks (Perwög 2009: 56-60; Pöllnitz 2009: 30-7).

Cavities

The shifting of the walls brought about a partial separation of the layers in the plaster and paint structure. The earthen plaster no longer adheres to the wall and as a consequence the individual layers (coarse and fine plasters, paint layer) detach themselves from each other.

In some areas this separation has led to "bubbles" below the plaster layers, creating extensive hollow spaces, which in turn engender cracks which can cause whole chunks of the plaster to break away completely. Particular problems are posed by the areas in which all the layers have detached themselves from each other, from the Adobe to the paint layer, as it is particularly difficult to establish the extent of the cavity.

Static Problems of the Sculptures

The majority of the sculptures is coming away from the walls as the anchoring at the shoulders and in the lotus have loosened; although most of the wooden dowels are intact, the weakened wall substance has crumbled so that the gaps now extend several centimetres or have come out all together so that the sculptures lean into the room (fig. 227). Furthermore the masonry supports under the sculptures in the Lotsawa Lhakhang are showing pronounced cracks.

Water Damage

As well as rising moisture from the ground, the influence of water, such as the penetration of water due to a leaking or damaged roof, is a constant problem. Typical water-related damage to the walls includes drips with and without clay deposits, erosion of the paint and final plaster layers, spattered clay and disintegrating earthen surfaces (fig. 228). In all these cases, the earthen building material has been washed out of the walls by the penetration of water, which transports it over the surfaces, leaving drip stains and deposits on the paintings. These have a variety of appearances and characteristics, from a millimetre-thin layer to a thick coating of several centimetres, either in trails or rivulets to whole surfaces. Typical are the differing consistencies: either extremely soft and crumbly, or very hard and crusty. However, the thin *secco* painting is extremely affected by water penetration; even small amounts of moisture caused clearly developed losses of the paint layer (Krist 2007, 2008, 2009).

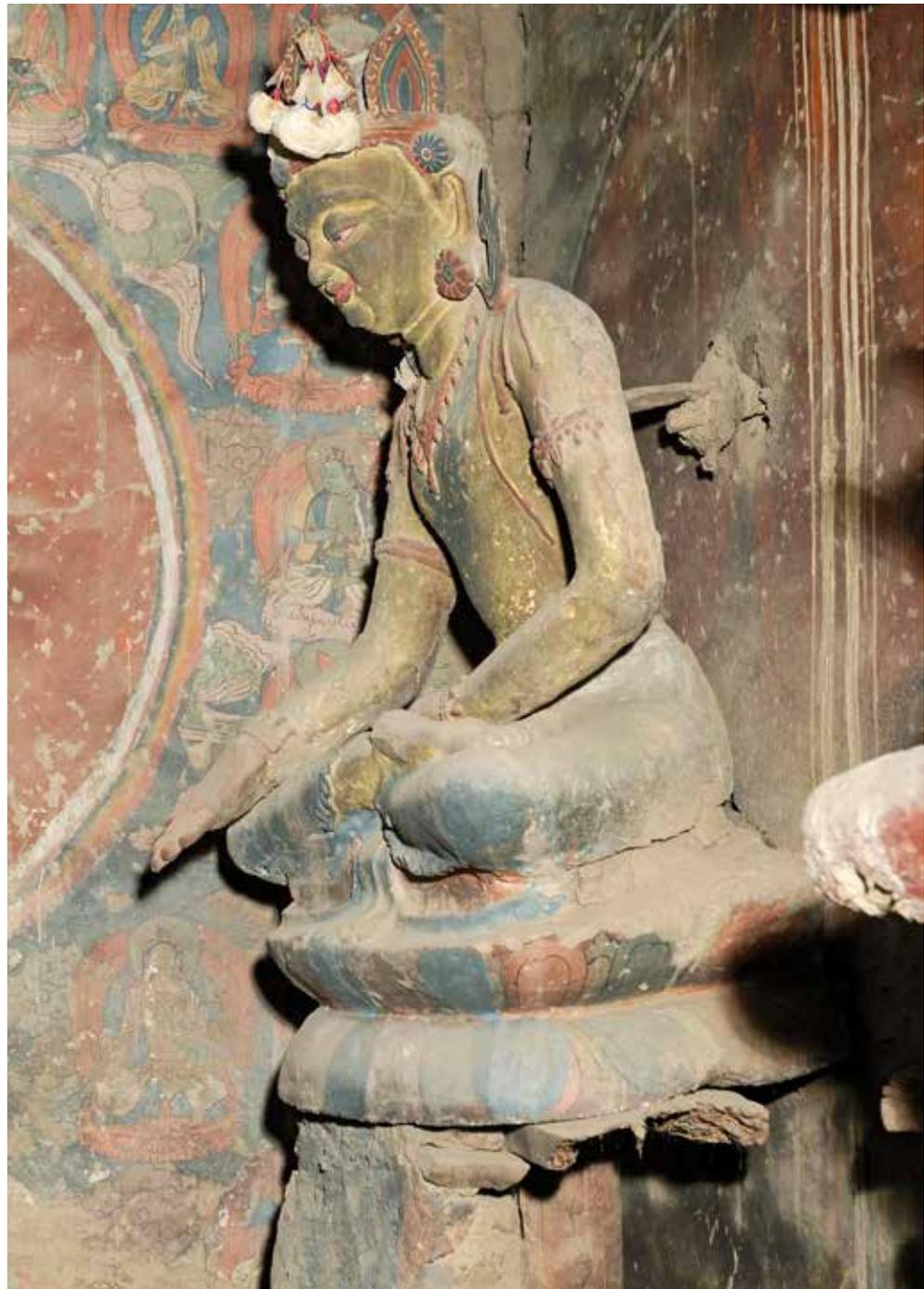


Fig. 227: Static problem of the statue of Ratnasambhava, apse in Lotsawa Lhakhang.

The penetration of water through the roof directly above the position of the Prajñāpāramitā statue in the Lotsawa Lhakhang led to the severe damage which only affected this group of sculptures. Substantial elements of the statue and the surrounding framing were destroyed and irreparably lost by water-related damage. About 30% of the substance was destroyed and roughly 20% more was significantly damaged, especially the framing.

As the water penetration also caused considerable harm to the adjacent wall, the adherent strength of the attachment has been lost and the statue is statically endangered (Krist 2004: 18-20).



Damage Phenomena Caused by Water and Salts

Two areas in the temple complex (floor zone in the Gyaphagpa Lhakhang apse and the Lotsawa Lhakhang apse) have the kinds of efflorescence which are caused by the presence of salts and a supply of moisture over the ground (fig. 230). These areas are characteristic transition zones between the lacunae and paint layer with a developed and active efflorescence zone. The structure of the earthen mortar has here been destroyed by the crystallisation process and has substantially increased in volume. Even the most minimal tremor will cause small sections to break away and the loss of substance.

Formation of Craquelure With and Without Tenting of the Paint Layer

In some areas of the wall paintings fine microcracks have formed within the paint layer and have grown together to form craquelure-like networks.

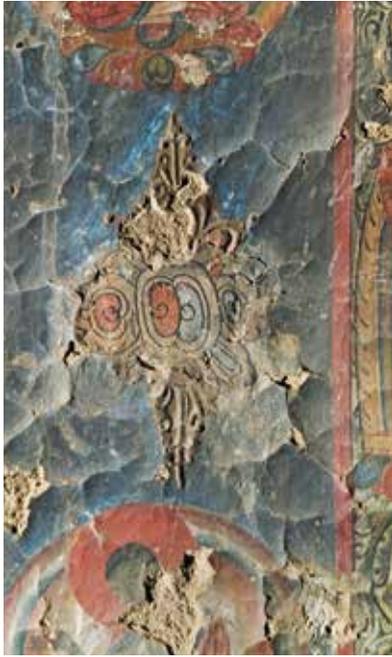
If the entire group of layers (fine plaster, ground, paint layer) is suffused with this craquelure, the consequence is flaking and cupping. The flakes "tent" upwards, detaching from the wall as the bond is lost. The size of the flakes can vary from a few square millimetres to several square centimetres. If the flakes have become completely detached from their support and are tenting upwards it is the result of tension within the cupping and can lead to individual flakes popping off, visible as bare patches within the areas of flaking (fig. 231).

Surface Dirt

Accretions of dust and soot are to be found on all the walls and sculptures in the temples (fig. 232). There is the fine dust which flies around and the very intense, stubbornly adherent dark brown to black layer, which is usually caused by the ritual use of butter lamps. The sticky and greasy film in turn attracts the dryer dust.

Fig. 228: Water drops and clay deposits, south wall, Lotsawa Lkhang.

Fig. 229: Consolidation of painting layers.



Right: Fig. 230: Losses near ground caused by water and soluble salts, apse in Lotsawa Lhakhang.

Left: Fig. 231: Craquelure with tenting of the paint layer and losses of paint and plaster layers, north wall Lotsawa Lhakhang.



Fig. 232: Accretions of dust on a Buddha statue, Lhakhang Gongma.



Damage to the Wooden Structures Inside the Lhakhang Gongma

Both ceiling beams have large areas of breakage, and most of the rafters have shifted from their original positions due to the wall's moving outwards. They often have no direct connection to the main beams and to the capitals and are only held together by the provisional repairs. Furthermore, the boards seem to have been moved around, which created additional stress and weak points culminating in cracks and splitting. The original wooden construction, especially the boards, has lost much of its material strength and can stand hardly any additional weight. Water penetration has affected the wooden ceiling and is visible in the stains, in some areas also mildew and brown cubical rot (Kohler 2006a: 41).



Fig. 233: Statues in Lhakhang Gongma after conservation.

Damage to the Painting on the Wooden Boards

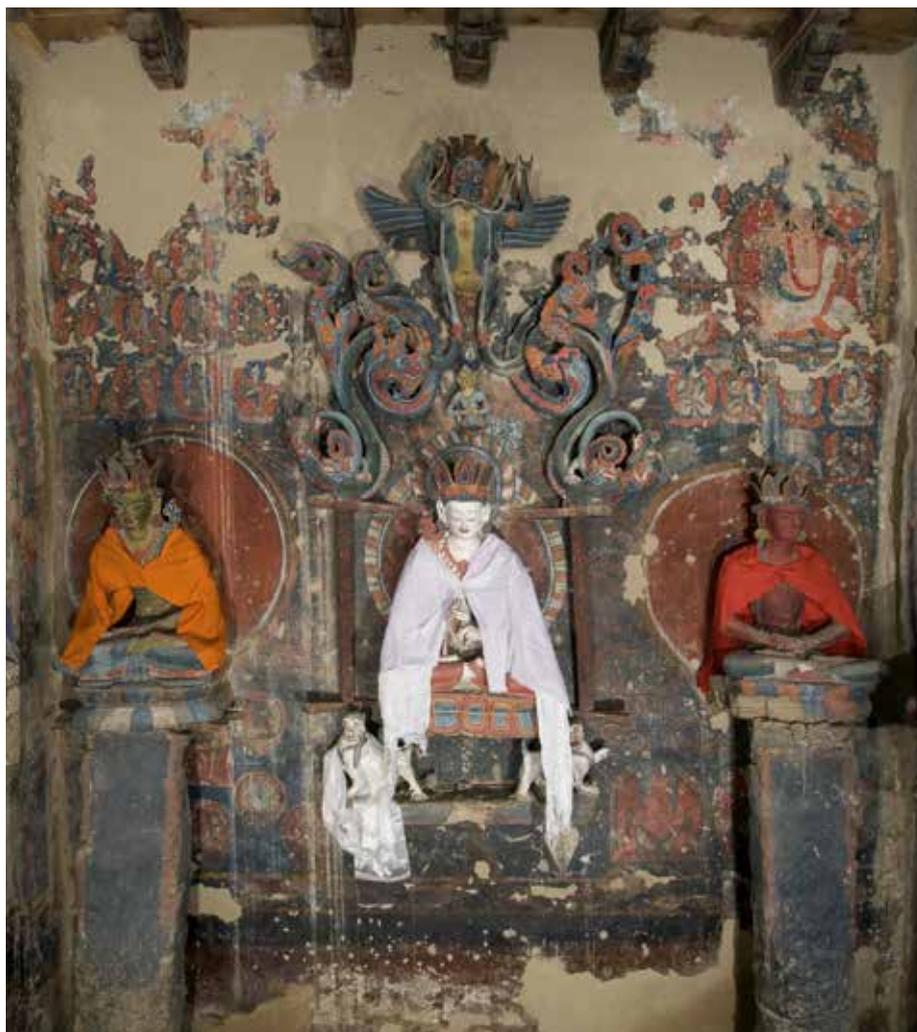
Various types of damage can be ascertained on the polychromy. The boards from the 16th-17th century, which depict a large-scale narrative scene, display poor adhesion of the paint layers which are in danger of flaking off; in some areas whole chunks of the paint layers are peeling off.

The binding of the pigments on the boards in the Lhakhang Gongma appears to be very weak. The paint layer is powdering off or is affixed to the ground by a coating of greasy soot. A large amount of the painted wooden substrate is badly water-stained. In some areas, the painting including the gypsum ground and earthen layer underneath have been washed away on whole planks. Severe surface grime is also visible on the painted parts of the ceiling structure. As mentioned several times before, this has been caused by the ritual use of butter lamps, incense sticks and the dust which penetrates from the outside. The original impression made by the colours is thus extremely compromised and the contours of the paintings are only perceivable with difficulty (Kohler 2006a: 59ff).

Fig. 234: Old repairs in the apse of Lotsawa Lhakhang.



Fig. 235: Apse of Lotsawa Lhakhang after conservation.



Renovations and Old Repairs

Repairs and renovation were an integral part of the temples' long history, though they can be differentiated by the variations in the quality of the workmanship as well as the choice of materials. To provide support at the exterior, stones were heaped in large piles around the walls, especially the corners. In the interior, replastering and overpainting in areas of large lacunae and cracks often went far beyond the actual damaged surfaces. More recently the infills and replacement plasters often contain cement (fig. 234). Most of these procedures can be viewed positively, as they have a stabilising effect on the affected areas. However, these repairs were usually undertaken without the appropriate knowledge or experience about the materials and techniques and thus often engendered further damage.

As in the temples' interiors, repairs on the roofs were made throughout the centuries, however these were often so faulty that the alterations they entailed considerably exacerbated the roofs' inherent static problems. Stones were frequently inserted to close cracks or gaps or to even out changes in level, which created additional stress for the already weakened wooden structure.

Furthermore, the increasing load on the roof caused shearing and pressure stress on the walls, which in turn shifted outwards, leaving cracks in the masonry.

Summary and General State of Preservation

As is obvious from the damage issue and the pictures, every object—in this case the temple complex—is not only the product of a particular culture at one specific point in time, but rather a continuous procedure subject to the factor time and therefore to aging and alteration.

Conservation sciences define and analyse these time-related traces and alterations on the materiality of an object as its "state of preservation." The analysis documents how and through what agents the material substance alters over time and to what extent this might endanger the object. The confrontation with the state of preservation and/or the substance analysis forms the basis for the planning of necessary conservation measures (Krist 2011: 243ff.).

In Nako the condition analysis and its graphic documentation had to make allowances for the size and complexity of the temple area, the limited time available *in situ* as well as the extreme working conditions. In the course of the research project it was possible to document the damage situation in the interiors, so that one could distil and interpret the catalogue of "All-over-Damage Interrelations"—particularly in reference to earthen architecture (Gruber 2011: 177).

Thus it is possible to summarise that, apart from the damage risk which exists as the threat of a sudden earthquake and torrential rainfall because of the environmental climatic conditions, that water and/or humidity and soluble salts are active factors which contribute to the damage situation at the temples. According to Gruber, the basic damage potential is provided by the material weakness of earth, its water solubility and low strength value (Gruber 2011: 167).

As regards the temple complex's general state of preservation, evaluation of the substance and condition documentation by various specialists confirmed what had already been acknowledged in 2001/2002 by a number of public institutions: because of the massive amount of damage to all the temples, the general condition can be defined as endangered. The urgency of the maintenance and conservation of the complex is, as mentioned earlier, highlighted by its being placed on the list of the "100 Most Endangered Sites in the World" by the

World Monuments Fund (WMF) 2002²⁴, as well as the mention in the “World Report” of the International Council on Monuments and Sites (ICOMOS) “Heritage at Risk” (Bacher 2001: 108f).

TASKS AND GOALS

The Preservation Masterplan

The condition report with the documentation of the buildings and their furnishings and wall paintings, clay sculptures and painted wooden ceilings formed the basis for the preservation and restoration plan for Nako. This “Monuments Preservation Masterplan” was developed in 2004 by Ernst Bacher and continued by Gabriela Krist and her team after his untimely death. It forms the basis for the conservation treatments of the temples. The primary principle of this recommendation for repairs and renovations is unconditional maintenance of the ensemble character of the temple complex. Equal treatment of all individual elements and the preservation of the complex are to be placed ahead of any single restoration. Repaired buildings and a well-tended condition of the temples’ interior decorations are thus the Masterplan’s goal. The temple complex should be preserved in its historically developed entirety for the devout village community.

This principle was the foundation for the management and calculations for working plans for 2005-2010 which stated the necessary and desirable conservation and restoration measures, including the pertinent conservation-sciences research.

As well as the conservation and restoration measures planned for the temples and their interior decorations, a concept of measures for continuing control, safeguarding and care to maintain their substance and their historic appearance should also be developed for all the areas treated. The continued preservation of the temple complex can only be ensured by adequate future care by the villagers, which is why it is necessary to formulate standards and develop exemplary models for the tasks of “maintenance” and “continuous care.”

CONSERVATION CONCEPT

General

Starting with Ernst Bacher and Gabriela Krist’s Masterplan, a conservation concept for the working campaigns in Nako was developed. It soon became apparent that this was going to be a continual pathfinding and tightrope walk between western preservation thinking and conservation scientific standards, and a completely different working situation in the Himalayas. Compromises had to negotiate between the hopes and plans made in Austria and the day-to-day reality which confronted the working team.

However, the goal of the work, which can be largely summarised as preserving the substance, continued to be the priority, so that thanks to the conservation concepts which had already been established, the future existence of the temple complex was ensured.

Nevertheless, the procedures selected needed to be adjusted anew to each individual temple, its interior decorations and the current conditions. It was therefore necessary to discuss how far the originally planned pure conservation work could be implemented or whether it might need one restoration measure or another. Also, the expectations and visions of the Buddhist community and the villagers could not be overlooked, and it was sometimes hard

to convince them that “minimal intervention and conservation treatment” was also effective. After the first visible successes they were, however, thrilled. The limited financial means meant a further compromise in regard to the individual buildings in the temple complex. Even during the first campaign it became obvious that in the time and with the funding available it would not be possible to conserve all four temples in equal measure. Therefore it was decided to concentrate on the Lotsawa Lhakhang und the Lhakhang Gongma and to make condition reports and undertake only urgent conservation treatments on the smaller temples.

Further criteria for the definition of a work concept were juggling the remaining time and the human and material resources. Because of the location at almost 4,000 m it was only possible to work in the summer months. Concerning material resources, it must be mentioned that Nako is perched “at the edge of the world” and therefore everything, every piece of equipment and most materials, had to be hauled up to the mountains. This fact repeatedly confronted the entire team with sheer insolvable logistical challenges. Nonetheless a concept crystallised out of the many ideas, which will be introduced in their appropriate areas.

Earthen Plaster

The primary task to be tackled in the plastered parts of the temples was to restore the stability of endangered sections, and to return a homogenous appearance to the surfaces of the walls. Because of the limitations of time and personnel, it was decided to prioritise filling the cracks and lacunae with subsequent grouting. Large lacunae are to be filled up to the level of the fine plaster layer and visually blended in and the partial backfilling of cavities in the walls is also to be dealt with.

The basis for developing appropriate earthen plasters was the groundwork research “Lehmputz und seine Konsolidierung (Earthen Plasters and their Consolidation)” which had been undertaken as part of two pre-diploma projects and a diploma thesis²⁵. The approaches which were developed in these projects first required series of tests, as well as subsequent critical re-checking and then further development of tests *in situ*.

As a result of the varieties of damage already listed, the following requirements are made of any earthen mortars, fillers or putties which might be considered for use: they should first and foremost be practical, easily preparable and workable. Furthermore, they should have sufficient adherence and bond to the earthen plaster, have enough surface cohesiveness and minimal dry shrinkage. A pleasing aesthetic appearance should not be overlooked, as the repairs should blend in well with the existing wall structure. In practical tests different blends of earth-water-mortar were developed for consolidating large areas of earthen plaster as well as mixes for largely small-scale groutings, backfills and fillings. The earth and water mortar (ranging from medium to coarse and then very coarse), were adjusted with the local master builder in Nako according to the historic models and traditional craft techniques. They vary regarding their individual proportion of argillaceous or arenaceous local raw materials²⁶, the grain size and composition as well as the addition of straw and fibrous materials. Depending on the requirements for different conservation measures—finer grouting, backfilling or filling procedures—the earth-water blends were fine-tuned. Initially additives like ethyl silicate or other organic materials were tested, but the conclusions after

25 For detailed information regarding results and information of the examinations, see the individual works (Gruber 2006, 2007; Ban 2008).

26 See contribution by Gruber, “Learning from the Material”.



Fig. 236: Crack with old infill, Lhakhang Gongma.

Fig. 237: Crack after removing old infill, Lhakhang Gongma.

Fig. 238: Closed crack with earthen mortar, Lhakhang Gongma.

series of tests indicated that a putty without synthetic supplements showed the best qualities and results *in situ* (Ban 2008).

All the subsequent consolidation measures on plastered areas used the tried and tested earthen plaster compound. The working steps were as follows:

a) Pre-treatment of the lacunae and removal of earlier plaster repairs and infills.

Earlier plaster repairs which represent a hazard for the wall paintings and original earthen plaster substance were removed (figs 236 and 237). The layers of paint and plaster were, when necessary, secured with Japanese tissue during this step.

b) Bricking-in large lacunae

In the areas around and below the ceiling beams and in the corners, missing bricks needed to be replaced inside large lacunae for static reasons. Appropriate Adobe blocks were trimmed to size and fitted in; in some parts, rubble stone was also used. Subsequently the area was backfilled with earthen mortar, and any joints pointed with coarse mortar and finished with a finer grout.

c) Closing lacunae with coarse earthen plaster

The task when closing lacunae with a coarse earthen plaster was to make the repair as innocuous as possible in order for the area to blend in with the allover appearance of its surroundings. This work is not only necessary from a conservation perspective but it should also make the substance and any historic painting more tangible. Depending on the depth of the missing substance, filling in with replacement mortars is done in several layers. The lowest layers begin with a coarse plaster²⁷, with each previous layer being roughened before the next is applied. The top and therefore visible fine layer²⁸ is applied very thinly to prevent it from cracking. Once it has dried to the hardness of leather it is then scratched off. Putties were applied to the level of the painting as in many cases the edges of the layers with painting also need consolidation and securing.

Large-scale lacunae were repaired with the help of a local craftsman.

d) Closing up cracks

Some of the open cracks were up to 30 cm deep. These could be treated with a flowable fill which was inserted with hoses as deep as possible into the masonry. Additionally, alternative additives of stones and straw were used. Finally, those areas were closed up with a coarse mortar just below the level of the historic fine plaster, and by grouting with a fine mortar the bond to the broken edges was restored.

²⁷ 1 volume *tua*: 4 volumes *tava* (0-2 mm): 1 volume straw: 1 volume gravel.

²⁸ 1 volume *tua*: 4 volumes *tava* (0-2 mm): 1 volume sieved straw (1.5-2 cm long).

Cracks which did not require the backfilling were closed, as described for the lacunae, with coarse and fine mortars (fig. 238).

As well as these measures on the support material in both Lotsawa Lhakhang and Lhakhang Gongma, attempts were undertaken to treat the damage caused by water seepage and salts.

Wall Paintings

In terms of the Masterplan, which places preservation measures for the ensemble ahead of a restoration and reconstruction, the paramount goal for wall painting conservation, not unlike the plastered areas, is the securing and consolidation of the substance. In detail, this entails the static securing of large lacunae and cracks as well as the control, and, when necessary the restoration of cohesion and adhesion of the paint layer. In regard to the completion and presentation, an improvement or restoration of the legibility of the image is also desirable. Therefore in addition to the substance-preserving measures, it was necessary to rid the painting from mud accretions and to clean the surface.

In consequence of the very water-sensitive paintings and the large surfaces which needed treatment, the following requirements were expected of the procedures and materials to be used: all the techniques selected (cleaning, uncovering, consolidation, filling) had to be as practical as possible and capable of implementation in the limited time with limited personnel in limited circumstances. The conservation medium used needed to take into account the high degree of water sensitivity of the paintings, yet at the same time achieve successful cleaning and consolidation results. The correct choice of cleaning and method for removing accretions and deposits should make it possible to remove thick coatings of mud without damaging the paint layer underneath and to remove the stubborn coatings of soot. Later, the consolidant should have good penetrative qualities and manifest excellent adhesive characteristics, while not altering the appearance of the surface, as e.g. surface sheen, of the paintings.

In order to find the appropriate method and correct materials, extensive tests were carried out in the field of wall paintings. It turned out that the most work-effective and especially for painting the mildest technique for cleaning and removal of accretions could be achieved with purely mechanical means. For consolidating whole chunks of different layers and flaking the best results were attained with an acrylic resin dispersion (Lascaux 498 HV, 10% in water) combined with a cellulose derivative (Klucel E, 10% in ethanol). In order to avoid watermarks and to insulate the painting it was found to be better to stabilise the edges of the paint layer with a temporary consolidant (Cyclododecan). For closing and filling lacunae and cracks the fine mortar described earlier worked well on the plastered areas.

Tested ahead of the actual work, these measures could be slightly altered or adjusted in the course of the individual working campaigns to suit the needs of each wall area. The following steps were taken on the wall paintings in the Lotsawa Lhakhang and Lhakhang Gongma:

a) Cleaning

The entire surface which was to be treated (painting surface and fragile plastered areas) was freed from dry loose dust using a soft brush and vacuum cleaner. The painting surface was carefully cleaned with a small latex sponge and more stubborn dust removed. The initial cleaning revealed more precisely the condition and state of preservation of the wall and subsequently the conservation procedures could be determined (fig. 239).



Fig. 239: Cleaning of paintings with latex sponge, Lotsawa Lhakhang.



Fig. 240: Consolidation of wall painting, Lotsawa Lhakhang.

b) Removing mud and accretions

Accretions of mud which was washed out of the support substance due to water seepage could be removed by dry mechanical means. Uncovering the wall paintings or the removal of small to large-scale mud deposits was achieved by fine mechanical work with a scalpel, small palette-knife and various brushes. In a few areas it was deemed necessary to leave a wafer-thin layer of the mud deposits, as a total removal would have led to damage and losses on the extremely thinly applied glue-based paint.

c) Consolidation of endangered paint layers

Vulnerable areas of the paint and ground layers, particularly in sections with crumbly, poorly-adhering or flaking paint were consolidated and stabilised with an acrylic resin dispersion (Lascaux 498 HV, 10% in water). To avoid watermarks and/or to protect the surrounding water-sensitive painting, the fugitive binding agent Cyclododecan was applied at the edges (fig. 240). This treatment was also effective in relaxing tenting flakes after consolidation so that they lay flat, or flatter and could be glued to the plaster surface.

In areas without any traces of dripping, the powdery paint layer was consolidated with a cellulose derivative, which in the more stable sections was applied with the help of Japa-

Fig. 241: Closed crack, Lotsawa Lhakhang.





Fig. 242: Cracks and drips with clay deposits, apse in Lotsawa Lhakhang.



Fig. 243: Apse in Lotsawa Lhakhang after conservation.

nese tissue, whereas in areas where the fragile paint layer was powdering away the solution was sprayed on. As well as the consolidation, an additional achievement in these areas was the freshening/brightening of the colours.

d) Grouting

Tenting flakes of paint layer that could not be secured by consolidation with acrylic resin dispersion alone were additionally grouted with a fine blend of *tua* and *tava*²⁹, by gently backfilling the partially-tenting flakes and closing the edge areas. The addition of pigments helped the filler to blend in with the surrounding area.

²⁹ *tua*: *tava* (1:1) sieved, in Klucel 3%, in H₂O: Ethanol (1:1), coloured with bone black and yellow ochre.

With this technique, not only the tenting paint flakes, but also the loose *pastiglia* elements on the south wall of the main temple Lotsawa Lhakhang could be secured.

e) Closing the gaps

In addition to the already described filling of large, open areas under the ceiling (see cleaning section), it was decided to also fill large cracks. This would not only secure the vulnerable areas around the cracks but also effect a calming in the appearance of the walls. Furthermore, smaller lacunae and cracks were closed, where it was deemed prudent to secure the surrounding paint layer. For reasons of time it was decided to apply the filling material to the level of the original surface in order to be able to do the entire wall and to afford enough protection for the abutting paint layer.

The closing of the gaps was guided by the original material with a fine mortar based on *tua* and *tava*³⁰. The adjoining painted areas were first stabilised with Cyclododecan before the treatment area was pre-moistened with water and a slurry (putty mortar with extra water) was applied. The mortar was then pressed into the gap with various palette knives and subsequently the surface was roughed up with thick brushes—this created a better optical integration of the repaired areas as can be seen on figures 241 and 243 (Krist 2006, 2007, 2008, 2009).

Sculptures

The measures that were used on the sculptures in the Lotsawa Lhakhang and Lhakhang Gongma also conform to the visions of the Masterplan—ensemble preservation before individual restoration.

However, when it came to the statue of the Prajñāpāramitā an exception or compromise was made, as the Buddhist community and the villagers wished for an extensive restoration of the seriously damaged statue, not only for aesthetic reasons but largely to restore the high religious value of the statue. As regards the concept this meant a purely conservation/restoration procedure on the surviving elements and the preservation of everything including the original surfaces as well as their historic alterations. In addition, a reconstruction of the destroyed and lost elements using historic craft technology by an appropriately trained sculptor, familiar with the regional Buddhist stylistic language was to be made.

This was the only way that both the desire of the local Buddhists for the restoration of the venerability of their deity, as well as a conservation and restoration according to current knowledge and ethics could be fulfilled (Krist 2006).

On the other sculptures only care and emergency stabilisation measures were carried out. The goal was to give the clay sculptures a well-tended appearance to match their surroundings while ensuring that they would not disintegrate.

For reasons of shortage of time and funding the treatments were keenly calculated and should be efficient to implement.

a) Cleaning

Dry surface cleaning was done with the aid of a vacuum cleaner and various large brushes. More stubborn dirt was removed with a Latex sponge. The remains of the compacted mud deposits were left, as their mechanical removal would have resulted in losses of the paint layer.

30 *tua: tava* (1:4), sieved and mixed with water for a relatively dry texture.



Fig. 244: Consolidation and stabilisation with bandages of the arm of a Buddha statue, Lhaxhang Gongma.

b) Consolidation

The consolidation of the paint layer was accomplished with an acrylic resin dispersion (Lascaux 498 HV, in water (1:5)), which was injected following a stabilisation of the surrounding paint layer with Cyclododecan in order to prevent possible water stains and to protect the rest of the polychrome surface.

c) Adhesion

An acrylic resin dispersion was also used to glue the sculptural elements. Gluing the large-scale breaks started with the pre-consolidation of those areas before the pieces were adhered. Gauze bandages and small pieces of wood served to stabilise the pieces during the drying stage (fig. 244).

On figures with spalling in combination with large lacunae, especially in the area of the thighs and knees (sculptures at Lotsawa Lhaxhang), the spalling was removed and consolidated, before all the fragments were assembled and glued back on using an acrylic resin

Fig. 245: Statue of Prajñāpāramitā during conservation, Lotsawa Lhakhang.



and then fixed with a clay mixture. In addition, the broken areas had to be treated with slurry, filler and grout before and after the adhesion—here too the *tua-tava*-mixture (1:4) was used.

For gluing the crown points of the sculptures in the Lotsawa Lhakhang apse it was not possible to use the trusted acrylic resin dispersion due to the very narrow joint, which was relatively small so that a stronger adhesive, dissolved in a fugitive binding medium (Paraloid B

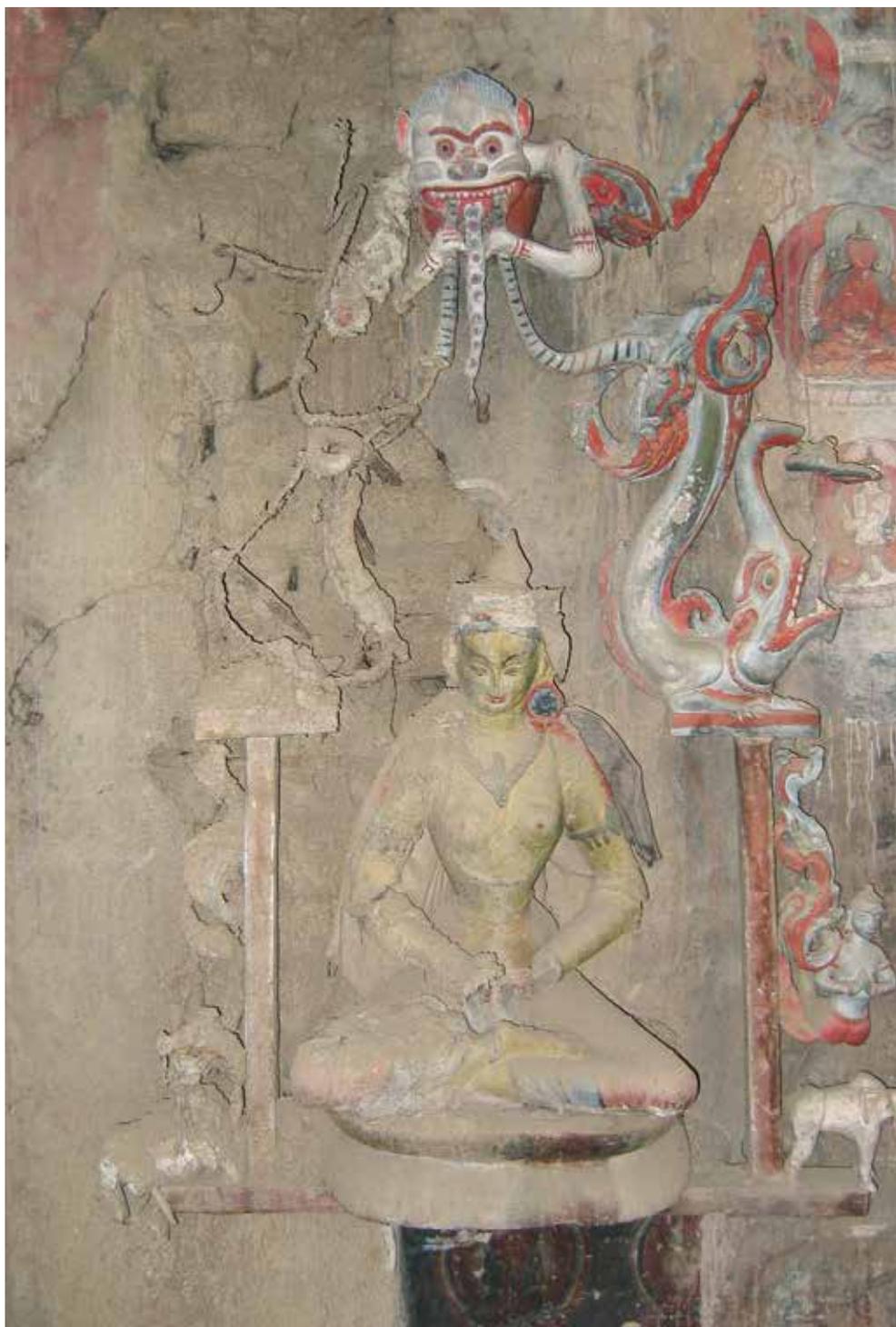


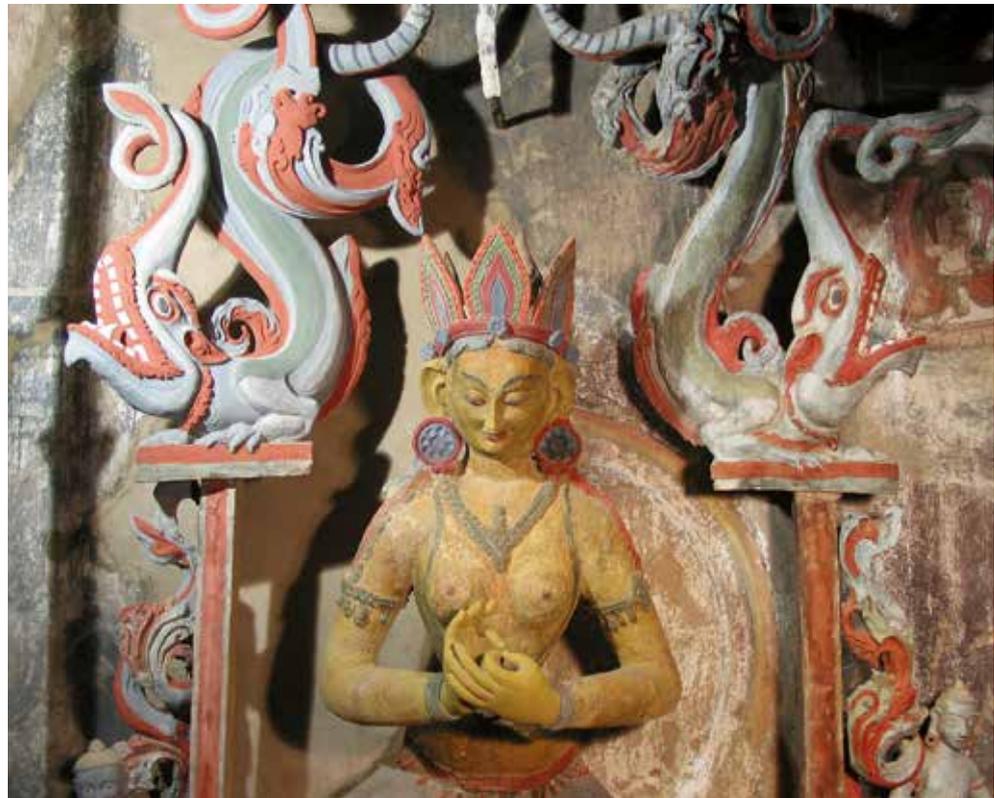
Fig. 246: Statue of Prajñāpāramitā before conservation, Lotsawa Lhakhang.

72, in acetone (1:1)) was necessary. Here too the surfaces were first cleaned, the adhesive applied and the crown points fixed in place with gauze bandages.

d) Static stability

Because of the static instability of three of the sculptures in the Lhakhang Gongma it was necessary to secure them with supports. Two different methods were employed. For the Buddha, who is placed in the upper row, a hanging support made up of wire cable and

Fig. 247: Statue of Prajñāpāramitā after conservation, Lotsawa Lhakhang.



a padded wooden board was attached to the ceiling beam. The statue could be secured without any intervention to the wall.

Two Buddha statues in the lower row could be stabilised with a round wooden pole which was clamped between the figure and the floor. In order to better distribute the weight, a padded wooden board was pushed between the clay statue and the wood (Perwög 2009; Pöllnitz 2009).

e) Prajñāpāramitā

As mentioned earlier, a trained sculptor was entrusted with the reconstruction of the missing parts of the central deity and the surrounding frame. The team from the Institute of Conservation limited its contribution to the conservation treatment on the statue.

The loose rear-mounted anchoring for the sculpture with a wooden dowel was stabilised and glued into the wall with an injection of epoxy resin. Removal of mud accretions and cleaning of the statue was accomplished using scalpel and brush. Hydroxypropylcellulose (Klucel E, 5% in water) was a successful consolidant for the polychrome surface, as using an acrylic resin dispersion would have caused an intensification of the colours. Furthermore, a reduction and removal of the bulky clay repairs, especially in the areas of the hair, nose and lower legs and earlier repairs in the arm area was desirable, and was accomplished mechanically using a scalpel and brush. The damage in the shoulder and elbow areas caused by static problems was also corrected with dowels and by regluing the arms. Furthermore they could now be replaced in their original position. Cracks and lacunae were repaired using the same methods described for the wall paintings using a clay mortar.

Finally, the unharmonious appearance of the Prajñāpāramitā needed some additional treatment. As a result of so many different surfaces which included original polychromed areas, repairs, replacements and reconstructions, the image was hardly legible any more.

The villagers were particularly upset by this state, which did not fit their concept of a deity worth venerating. Here too was a case of finding a compromise between the expectations of the villagers and the professional requirements of conservation ethics. Thus, the infills and replacements to the statue and within the area of the preserved parts of the frame will undergo a purely “conservation finish”. A new polychrome coat was only applied to the reconstructed elements of the frame. Watercolour-based retouching blended the repaired lacunae and allowed colour integration of the repairs. The new paint on the framework was applied after trials and sample patches with a liquid clay slip made of *tua* with a rabbit skin glue solution plus the pigments.

To summarise, it can be said that after the completion of the work the statue presents a self-contained, harmonious appearance. The reconstructions and replacements are integrated into the preserved areas, yet without imitation, they remain perceivable (fig. 247).

As mentioned earlier, the statue of the Prajñāpāramitā has an absolutely special place, as a result of the massive damage it suffered in the past (Krist 2006).

Ceilings

After a lengthy planning and research phase, the poor state of preservation of the roofs of the Lotsawa Lhakhang and Lhakhang Gongma was finally addressed. A major leak in 1998 in Lotsawa Lhakhang moved the villagers to repair the roof themselves. In the course of repair work the original painted panels were shifted around or, in a few cases replaced by new, unpainted boards, so that the ceiling and its decoration are no longer in their original state.

Lhakhang Gongma’s roof was renovated according to the plans of Romi Khosla and his team. Khosla was closely involved with the development of the Masterplan with Ernst Bach-



Fig. 248: Redistribution of ceiling panels, Lhakhang Gongma.

er³¹. These measures were supported by the conservation team with emergency stabilising of the original wooden ceiling construction as well as the panels. Moreover, a conservation concept for the further steps to treat the wooden ceiling was conceived (Kohler 2006a).

The primary goal, besides to return it to a cared-for and safe condition, was to rearrange the panels as they might have been set originally.

a) Redistribution of the panels

The fact that the ceilings in the Lotsawa Lhakhang and Lhakhang Gongma are not in their original condition has been discussed earlier. The panels appear to have been randomly replaced following repairs. Within the framework of current research undertaken by art historians as well as the conservators it has been possible to reconstruct the original arrangements of both ceilings³².

Shuffling and repositioning the panels as well as recouping some original panels which had been languishing in various storage depots, the ceiling could be reassembled in a rudimentary fashion. Gaps or empty spaces in individual areas which were the result of missing or damaged pieces were replaced with neutral unpainted boards (fig. 248).

b) Cleaning

Initially, loose dust and dirt was removed from the panels with soft brushes, after which firmly-attached dust was removed with soft sponges. Some areas required pre-consolidation of loose parts of the paint layer³³.

c) Stabilising the wooden substance

The many large, loose areas of wood degraded by brown cubical rot called for a localised consolidation. In addition, the wide side of some of the boards which rested on the rafters had thinned considerably and could split easily. A pure acrylate dissolved in ethyl acetate was chosen as the consolidant, having already given satisfactory results in the tests run earlier (Kohler 2006a: 68-71). A high concentration of the solution was able to "glue" the loose wood particles to the surface and thereby prevent the wooden substance to continue breaking off. Whereas some boards needed their whole surface coated, localised treatment in areas of rot was sufficient on others.

d) Consolidation of the paint layer

The consolidation of the extremely water- and humidity-sensitive paint layer was also the subject of pre-trials. A solution based on a cellulose derivative (Klucel E, 5% in ethanol) performed well and gave good visual results; applied with a wide brush, it achieved a satisfactory consolidation effect and the ease of application made for swift work.

Moreover, panels on which thick, partially loose paint layer flakes had formed needed consolidation with a strongly diluted acrylic resin dispersion (Motemacryl 250, in water (11:9)) in order to attain a sufficient degree of adhesion. Injecting the consolidant with needles returned the loose paint layer flakes to a form in which the consolidant could be applied.

e) Retouching

The decoration of several sections appeared to be strongly compromised by very light, almost white water stains from earlier leaks. This haphazard pale pattern dominated the real ornament, which is why it was decided to adjust the tonality of the washed-out areas. The

31 See contribution by Khosla, "Building Structure and Conservation of Roofs".

32 See contribution by Kalantari, „For Merit and Mediation. Form and Meaning of Ceiling Paintings at Nako“.

33 For this pre-consolidation Hydroxypropylcellulose Klucel E 8% in ethanol was used.



Fig. 249: All panels after the treatment, Lhakhang Gongma.

irritating white stains were retouched with gouache colours appropriate to the background of the various sections.

f) Treatment of split or fragmentary boards

Gluingsplit painted boards as well as the replacement of missing sections or piecing boards that are too short was undertaken by the local carpenter under the guidance of one of the conservation specialists (S. Kainz) from the team.

g) Colour integration of the untreated panels

The additional panels which had been inserted to replace missing or damaged wood were to be matched to the painted ones. Glue-bound distemper and pigments³⁴ were used to tint the neutral planks to match the base tone of the section at hand (fig. 249).

h) Painted beams and capitals

In the same manner as the boards, the painted beams, rafters and capitals were also given a cleaning, paint layer consolidation and colour integration using the same methods and materials as described above.

³⁴ 3.5% rabbit skin glue with natural and synthetic pigments.

Fig. 250: Detail of the north wall in Lhakhang Gongma during conservation.



Fig. 251: North wall in Lhakhang Gongma after conservation.





Fig. 252: Detail of the south wall in Lhakhang Gongma during conservation.



Fig. 253: South wall in Lhakhang Gongma after conservation.

Fig. 254: Detail of the west wall in Lhakhang Gongma during conservation.



Fig. 255: West wall in Lhakhang Gongma after conservation.





Fig. 256: South wall in Lotsawa Lhakhang before conservation.



Fig. 257: Detail of the south wall in Lotsawa Lhakhang after conservation.

Fig. 258: East wall in Lotsawa Lhakhang
before conservation.



Fig. 259: East wall in Lotsawa Lhakhang
after conservation.





Fig. 260: Detail of the east wall in Lotsawa Lhakhang after conservation.

Summary

The main aim of the conservation project was to preserve the substance and ensure the continuing existence of the temple complex through minimal intervention. While the two main temples, the Lotsawa Lhakhang and the Lhakhang Gongma, were nearly completely restored and conserved, only condition reports and urgent treatments were done at the two smaller temples.

The plastered areas inside the temples were secured, lacunae and cracks closed and a homogenous appearance restored. The wall paintings could be secured and consolidated as well. Additionally to these preservation measures, the legibility was restored through careful removal of mud accretions and cleaning (see figs 250–260). Although the plan for the sculptures' conservation followed the idea of preserving the ensemble instead of favouring individual restorations, an exception was made for the statue of Prajñāpāramitā. While only urgent stabilisation measures were carried out on the other sculptures, the statue of Prajñāpāramitā was fully restored and conserved. Beside cleaning and consolidation these measures also included the reconstruction and replacement of missing parts, which resulted in a harmonious, homogenous appearance. The roof of one temple could be renovated, while the original ceiling was stabilised and the painted panels conserved and rearranged to correspond to their original position.

TASKS FOR CONTINUOUS CARE AND PRESERVATION

As well as the purely conservation and restoration tasks involving the temple complex our team extended its mission to include other areas.

This included active support for the planning and establishment of a village museum, examining and treating the thangka collection of the monastery as well as holding diverse workshops and trainings for the monastic and village community focused on “Building Maintenance”.

Thus another point in the Masterplan could be fulfilled, which considers the importance of ensuring the maintenance of the temple complex by the villagers after the end of the Institute of Conservation’s project.

Alongside these on-site activities, the “Nako Project” was showcased at numerous other occasions including conferences, exhibitions and film presentations and thereby made available to the general public.

Workshops and Training Programme

The Institute of Conservation began its activities for training the monks and villagers in 2006 parallel to research and preservation activities. The “Mud Pressed Block” technique was presented by the Indian architects Romi Khosla and Sandeep Sikka.

In 2009, in response to great demand from the Nako villagers, two workshops were held on the themes “Thangkas” and “Building Maintenance”.

Led by diploma student Edgar Skomorowski, the thangka training was initiated by Somang Rinpoche, the religious head of the Nako Monastery, with the goal of introducing Buddhist lamas to the field of the preventive conservation and care of the Tibetan scrolls (fig. 261). These are used as furnishings for temples and private prayer rooms and are often used during ritual pujas and are brought on pilgrimages from place to place. Unfortunately the older and disused scrolls often abandoned to disintegrate due to inadequate storage. The workshop showed the monks the appropriate treatment for these delicate items as well as underscored the importance of control and care (Skomorowski 2010).

Fig. 261: Thangka Workshop with monks.

Fig. 262: Participants of the Building Maintenance Workshop.



Aimed at both the monks and the villagers and various representatives of individual committees in Nako, the Building Maintenance Workshop was held by Marie Gruber and Helmut Neumayer. Because of the fact that over the last years, even in Nako there are always more new building techniques and materials entering the market, the goal of the training was to promote local building traditions and the preservation of the historic buildings.

Traditional and new repair materials for buildings, their individual characteristics, behaviour under different conditions and their risks when used were discussed. Furthermore an understanding of the importance of continuous care of the houses and temples could be given the participants (fig. 262). Both workshops were greeted with great interest and active participation (Krist 2009).

The Nako Museum

The visit of H.H. the Dalai Lama in summer 2007 had led to the establishment of a village museum, and for the planning and furnishing of which the Conservation team assisted. Martina Griesser-Stermscheg was supported by the Indian project partner the NRLC and Hary Narain.

The Nako Youth Club, which is responsible for the founding, maintenance and direction of the museum, also decided that the museum's building should be built in the traditional manner with stone walls, earthen plasters and a wooden roof. At the edge of the village square across from the new temple and the guest house for the Dalai Lama, a c. 40 m² museum building was erected (fig. 263).



Fig. 263: Nako Museum building.

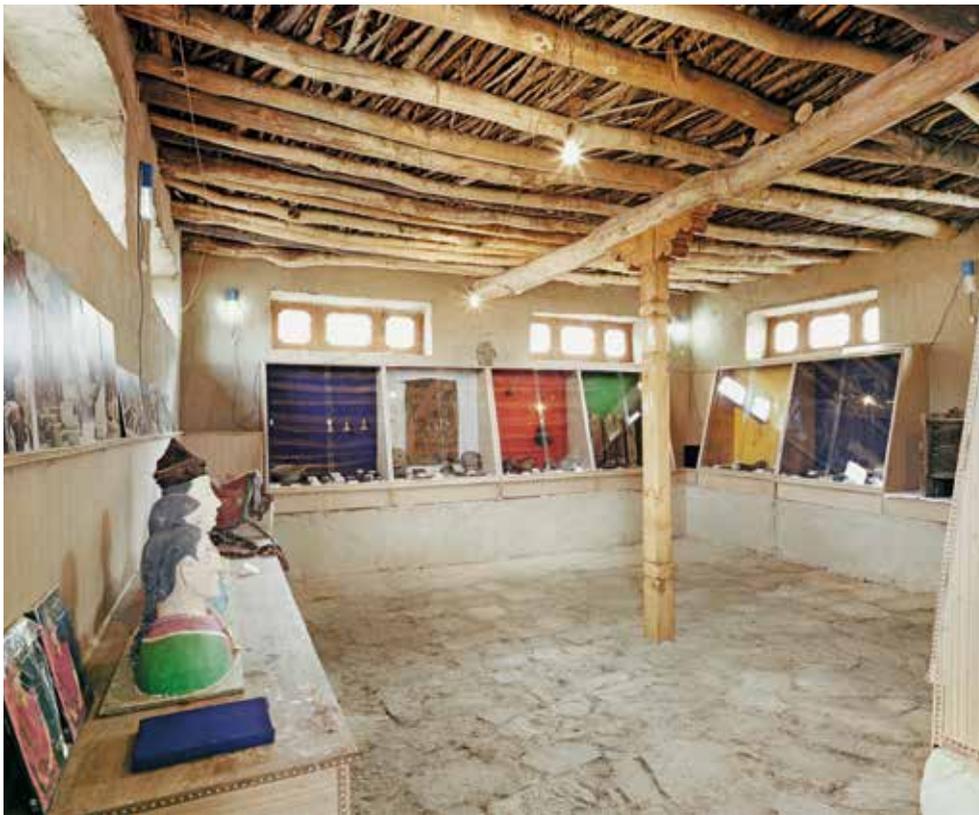


Fig. 264: Inside the museum.

Fig. 265: Visitors at the new opened museum.



Regarding the establishment of the museum and its collection, Griesser-Stermscheg states that "according to western theory, museums are always founded when the pressure to show off arises, when cultural identity should be endowed internally or, however, when it should be communicated outwardly" (translated from Griesser-Stermscheg 2010: 111). The wish to present and represent was also substantiated by the compilation of a guideline for the museum

by the members of the Nako Youth Club: “We want to show what we have and how we live” (Griesser-Stermscheg 2010: 113). It should be a regional museum with a “permanent changing exhibition”, which presents the life, customs and things that make up life in Nako, and moreover serve as a communication centre not only for tourists.

Assembling the future museum objects started with some difficulties: the sheer lack of experience with the institution of a museum led to considerable insecurity among the villagers regarding what sort of items should be displayed, what objects are “exhibition-worthy”. However, they soon set aside their worry and the villagers brought new items daily which they either donated or loaned to the museum.

Together with the monks the first inventory was produced, donations and loans entered, data for identification collected and the function noted. Furthermore, some conservation measures were initiated; a total of 70 objects were documented, recorded, cleaned and conserved. The goal was to achieve a groomed appearance with honest traces of age and usage. The “new, old” museum objects were finally installed in the specially built wooden display cases with sliding glass doors, set on lengths of fabric in the colours of the prayer flags. The objects are divided into different groups according to their original use, such as religious and liturgical accoutrements, household goods, kitchen wares, jewellery, clothing, etc. (fig. 264).

At the opening of the village museum as part of the visit of H.H. the Dalai Lama in August 2007 the Nako inhabitants were proud to see their items in the new setting and to rediscover them as cultural heritage (fig. 265). The awareness of the locals about their own heritage, handed down in the village and preserved through the establishment of their own museum. The every-day culture of the grandparents’ and parents’ generation will be displayed not only to the villagers from Nako and its surroundings but to the growing number of cultural tourists (Gruber 2011: 45).

The original motivation to found the Nako museum as a part of the Dalai Lama’s visit and the pressure on the village to show their best quickly turned into a project that fostered self-identification, that in consequence grew into an integral part of the village.

The Thangka Collection

In 2008 Nako’s Buddhist community asked the Institute’s team to examine and treat the monastery’s and the village’s thangka collection. Regina Knaller, assisted by the student Charlotte Holzer, directed the initial survey of the 20 battered Tibetan scrolls. Textile conservation treatments were undertaken, including dry surface cleaning with sponges and different kinds of brushes to remove loose accretions of dust and dirt and a subsequent flattening of the severely deformed objects with compresses out of Goretex. The smoothed and flattened thangkas were stored in a specially made metal case as can be seen on figure 266 (Krist 2008: 63-73). In the course of handling, three thangkas were selected for being brought to Vienna for further treatment. These scrolls were examined and treated more thoroughly by Edgar Skomorowski as part of his diploma thesis (for details see Skomorowski 2010). After the completion of the conservation, they were returned to the Nako Monastery in 2010 where they are on display in the meeting hall today.



Fig. 266: Thangka in the new storage box.



Fig. 267: Opening ceremony of the conference in New Delhi 2009.

Conservation Sciences Scholarship (Conference, Exhibitions, Documentary Film)

It was not long before the practical preservation and training measures in Nako needed the appropriate scholarly documentation and research to record the specific issues.

This documentation and research work provided topics for several pre-diploma projects, diploma theses and doctoral dissertations.

The Institute of Conservation thus strove to present the results of the research and projects in lectures, publications, exhibitions and documentary films and thereby extend the "Nako Project" as wide to an audience as possible.

Among the many national and international conferences and meetings at which lectures presenting the work being

done at the Nako temple complex, only one will be mentioned here. To celebrate the 60th anniversary of Austro-Indian diplomatic relations in 2009, the Austrian Cultural Forum in New Delhi initiated an "Anniversary Conference" which was jointly co-organised by the Institute's team together with the National Museum Institute in New Delhi (NMI). Under the heading "Cultural Heritage Counts. Research, Conservation and Management," Indian and Austrian experts were invited to present their projects in the field of cultural heritage in India³⁵ (fig. 267). Various aspects of the "Nako Project" were described in three contributions: Gabriela Krist and Marie Gruber, „Für Nako. Erhaltung des tibetischen Kulturerbes (For Nako. Preservation of Tibetan Cultural Heritage)"; Tatjana Bayerová und Marie Gruber, "For Nako – a Technical Study of Earthen Structures and Paintings. Field Work Close to Heaven"; also Martina Griesser-Stermscheg, "The Nako-Museum" (Krist and Gruber 2010; Bayerová and Gruber 2008; Griesser-Stermscheg 2010).

In addition, various exhibitions were shown in Vienna ("Namaste Nako", 19.1.-30.3.2006, University of Applied Arts Vienna; "The Cultural History of Western Himalaya", 4.-20.3.2006, Österreichische Akademie der Wissenschaft; "In a few seconds I'll feel better", 8.12.2007 - 8.1.2008, University of Applied Arts Vienna; Foto Presentation at "Essence 2011" 29.6.-17.7.2011, Museum of Applied Arts Vienna) and in New Delhi ("Nako – Living Cultural Heritage in the Western Himalayas" 20.2.-20.3.2012, National Museum Institute and 11.-17.5.2012, India International Center) featuring pictures of Nako, life in the village and the temples by the photographer Stefan Olah. An even wider outreach was attained by the film-maker Gundi Lamprecht who, together with ORF (Austrian Broadcasting Company) produced the films "An den heiligen Flüssen (Along the Sacred Rivers)", "Buddhas Frauen im Himalaya (Buddha's Women in the Himalaya)" and "Close to heaven" which document the work of the Institute's team in India and especially in Nako.

35 The reprints of this conference were published 2010 under the title „Heritage Conservation and Research in India. 60 Years of Indo-Austrian Collaboration, Konservierungswissenschaften-Restaurierung-Technologie, Vol. 6" by editors G. Krist and T. Bayerová.

CONCLUSION

After 6 years and 9 working campaigns in Nako, as well as numerous conservation science challenges and confrontations with the inherent problems, at the end of the project the question is raised asking to what degree the Masterplan, which was the cornerstone and which shaped the beginning of the preservation and conservation of the Nako Gumpa, could be realised?

As early as 2009, in her lecture at the New Delhi conference (see Krist and Gruber 2010: 85-98), Gabriela Krist emphasised that especially because Nako was a manageable “small site” the approach suggested by the Masterplan could be realised and its core vision could be extended to further working areas in the preservation of Nako’s culture. It can therefore be asserted that what is expected today by international organisations like the UNESCO World Heritage Centre or the Global Heritage Fund in connection with the preservation of cultural heritage and cultural heritage sites, was implemented in Nako in an exemplary way: through the preservation local, social and economic development possibilities could be considered and sustainably controlled. This was made possible by the accordingly “small yardstick” and the manageability of the project, the close and long-term collaboration with the project partners and the representatives of the village itself. It should not be overlooked that the available academic/university structure was maintained, through which the conservation sciences guaranteed fundamental research and flexible project planning, with which it was also possible within the project’s framework to react to any particular situation in Nako at short notice.

With the *in situ* preservation work, however, also the current brief for sustainability (see Staniforth 2000) is acknowledged. As commented in a lecture (Gabriela Krist) at the ÖRV-meeting “if a long-term process was set in motion in the village, to generate an intensified awareness for the protection of cultural heritage and cultural landscape in a region, which is shaped by upheaval and distinct changes” (Gruber et al. 2009:136f). In order to achieve this, the enduring and intensive cooperation with the village community was a condition for the realisation of these processes. The village representatives were not merely consulted at the decision-making and planning levels, but also in the practical implementation and realisation of the conservation work in which craftsmen and workers from the surroundings collaborated in the long-term preservation work.

Moreover, a process of sensitisation for the living village culture in Nako and its uniqueness could be started. After all, part of the Masterplan was also the “living cultural heritage” which was to be preserved in the long run through the Nako project (Gruber 2011:57). It was attempted to communicate that cultural heritage, passed down from generation to generation, is not primarily for profit or marketing as tourism, but that it would be important to pinpoint what is unique in Nako’s authenticity, “to leave it in the village” and to develop it and to pass it on.

Finally, it can be asserted that the “Nako Project” can serve as an example of how material culture and present-day approaches to preservation can work in tandem with each other.

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Lisa Gräber	Gabriela Krist	Kathrin Schmidt
Martina Griesser-Sterms- cheg	Susanne Leiner	Sandeep Sikka
Marie Gruber	Katherina Mergl	Edgar Skomorowski
Andrea Hackel	Marija Milchin	Susanne Spornberger
Charlotte Holzer	Birgit Müllauer	Christoph Tinzl
Michael Höflinger	Hary Narain	Manfred Trummer
	Georg Oberlechner	Bettina Unterberger

Partners

Austrian Cultural Forum New Delhi
Austrian Development Agency (ADA)
Austrian Science Fund (FWF)
Eurasia-Pacific-UniNet (EPU)
Hangrang Organisation
Nako Youth Club
Nako Tsug Lakhang (Nako Buddhist Society)
National Museum Institute New Delhi (NMI), Department of Conservation
National Research Laboratory for Conservation of Cultural Property Lucknow (NRLC)
University of Applied Arts Vienna, Institute of Conservation
University Vienna, Department of Art History
Visva-Bharati, Department for Indo-Tibetan Studies
World Monuments Fund (WMF)
Geological Survey of Austria, Department Mineral Resources
Department of Engineering Geology, Faculty of Natural Sciences, Comenius University Bratislava
Institute of Applied Geology, University of Natural Resources and Life Sciences Vienna
Institute of Theoretical and Applied Mechanics, Academy of Sciences of the Czech Republic
STRABAG Societas Europaea
Chair of Geology and Economic Geology, Montanuniversität Leoben
Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences
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Department of Geography and Regional Research, University of Vienna
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4. Appendices

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OBITUARY –
IN MEMORY OF FLORIAN FLICKER

Problems are Possibilities

by Florian Flicker

Seit drei Jahren fahren StudentInnen der Wiener Angewandten in den Himalaja zur Arbeit. Im Bergdorf Nako haben sie Höhenkrankheiten, Ohrenbluten und nehmen ab. Viertausend Höhenmeter und Indiens Küche zollen ihren Tribut. Nebenbei konservieren sie unter Anleitung österreichischer Wissenschaftlerinnen vier alte Häuser, reißen ihre verfaulten Dächer auf, stauben historische Wände ab und retten damit eines der „most endangered monuments of the world“: die wahrscheinlich älteste original erhaltene Tempelanlage des Tibetischen Buddhismus – die Tempel von Nako.

Im nur vier Kilometer entfernten Tibet, 1951 von China annektiert, wurden vergleichbare Kulturschätze des Tibetischen Buddhismus längst zerstört. Das „Nako Research and Preservation Project“ ist ein Kulturauftrag am Ende der Welt: Die Luft ist dünn, die Grenzen dicht, der nächste Ort drei Autostunden entfernt, zum Krankenhaus braucht's einen Tag. Bei der Expedition 07 ging auf der Hinreise die Watte verloren, unverzichtbares Arbeitsmaterial zum Restaurieren von Wandmalereien. Das war „a little problem“, wie die Inder sagen würden. Uni-Assistentin Martina Griesser wird da deutlicher: „Wenn's um's Material geht, wirst' da oben zum Viech“.

Ein wesentliches Gebot des Buddhismus lautet „no attachment“, keine Anhaftung, kein Sich-Klammern an die Welt. Als uns ein Bus entgegenkommt, verspüre ich gegenteiliges Verlangen. Links von unserem Jeep schiebt sich der Bus vorbei, rechts von uns der Abgrund und mein Untergang. „It's deep, no?“, frage ich Ashok und blicke in den Strassengraben, das bildhaft Bodenlose. „Thousand meters“, sagt er und gibt Gas. Und aus den Busfenstern über uns übergeben sich selbst Einheimische. Die Strassenbaufirma entschuldigt sich schriftlich: „Sorry of ooh und ah“, schrieb sie an den Wegesrand. „Vernichte deinen Lebenshungrer und du beendest dein Leiden!“, schrieb Buddha. Allein Ashok, der Hinduist, bleibt gelassen und Turga, seine Liebesgöttin, blinkt mich vom Armaturenbett aus an. Viele Arme hat sie, viele Arme, um uns aufzufangen.

Hinduistisch beschützt reisen wir zu einem, dessen „lehrende Weisheit so tief und weit ist wie der Ozean“. Auf Mongolisch heisst das „Dalai Lama“. Er ist eine Reinkarnation Sidhartas vulgo Buddha, der 500 Jahre vor Christus nordöstlich von hier, unter Pappelfeigen, eine Erleuchtung erlebte. Eineinhalb tausend Jahre später begannen seine Anhänger auch in Nako, dem kleinen Bergdorf am Rand der Seidenstrasse, buddhistische Tempel zu bauen. Als die Mönche einige hundert Jahre später weiter zogen, überliessen sie die vier Lehmhäuser den Bauern und einem ungewissen Schicksal. Im Jahr 1989 kam dann die Kunsthistorikerin Deborah Klimburg-Salter des Wegs und die Bauern auf sie zu. Und sie baten um Hilfe: Ihre Tempel waren am Verfall. Dreizehn Jahre später schaffte es die 900 Jahre alte Tempelanlage von Nako auf die Liste der gefährdetsten Denkmäler der Welt. Dank österreichischer Gelder und Wissenschaftler ist sie noch am Leben. Sechzehn Studierende und MitarbeiterInnen der Angewandten waren heuer schon dort, haben Restaurierungen abgeschlossen und Höhenkrankheiten durchlitten. Und übermorgen kommt der Dalai Lama, um in diesen Tempeln zu meditieren und seine Lehren zu lehren. Aus buddhistischer Sicht bewegt er sich in einem stets hochmeditativen Zustand und ist „die Weisheit in Aktion“. Für die Bewohner Nakos ist er schlichtweg ein Gott.

Anlässlich seines Besuchs reist Mitte August 2007 eine österreichische Delegation nach Nako, es sind die Betreiber des „Nako Research and Preservation Project“: Hochrangige Mitglieder des Instituts für Kunstgeschichte der Universität Wien und des Instituts für Konservierung und Restaurierung der Universität für angewandte Kunst, Wien. Fotograf Stefan Oláh und ich begleiten Professorin Gabriela Krist, seit vier Jahren verantwortlich für die Rettung der Innenausstattung der Tempel Nakos. In Wien noch retten wir gemeinsam das Tropeninstitut über sein Sommerloch und meine Apothekerin duzt mich bereits. Allein Tollwut könnten wir noch bekommen, sagt sie, am ehesten von den Affen, aber die bleiben meist am Strassenrand und klettern nicht in hohe Berge.

Zwei Wochen später liegt New Delhi eine Tagesreise hinter uns und wir übernachten in Shimla, einem Luftkurort an den Ausläufern des Himalajas. Österreicher nennen es den Semmering Indiens und so sieht es auch aus. Krist, Oláh und ich sitzen am Boden unseres Zimmers, spielen Canasta und trinken Whisky, um unsere Mägen zu stützen. Krist liegt uneinholbar in Führung, einen Assen-Canasta hat sie bereits und ich hab nur zwei rote Dreier. Dass ihr Auftrag und der ihrer Studierenden dermassen am Ende der Welt liegt, sei Zufall, sagt sie. In zwei Wochen fliegt sie nach Albanien. Fünf Kirchen vermodern dort. Der nächste Zufall.

Morgens reibt Ashok Spucke auf das Ventil seines Reifens. „Problem?“, frage ich. „Little problem“, sagt er und gibt Gas. Die nächsten Stunden sind geprägt von widersprüchlichen Klimazonen und pittoresken Landschaftsbildern: Wir fahren durch Vietnam, die Schweiz, überqueren die Dolomiten, passierende heilige Kühe, tollwütige Affen und in Schluchten gestürzte LKWs. Und an allen Strassenrändern kauern Familien, klopfen Steine und bessern damit die Strassen aus. „Das sind Gastarbeiterfamilien aus Nepal“, sagt Ashok. Sie ziehen von Schlagloch zu Schlagloch, hausen unter Plastikplanen und ziehen dort ihre Kinder gross. Wir retten Kultur, andere ihr Leben.

Einen Tag später sind wir im Himalaja und es scheint als hätten seine Bewohner Gebetsfahnen auf die Bergrücken gepflanzt und sich selbst schleunigst aus dem Staub gemacht. Majestätische Berge, wahnwitzige Schluchten, Fels und Staub soweit das Auge reicht und wir sind allein auf der Welt, China nicht mehr weit und Pakistan um's Eck. Wir passieren Militärkontrollen, die Strassen werden enger, ihre Abgründe bodenloser. „Drive slow, not to heaven!“, empfiehlt ein Schild am Wegesrand und ich will mit Frau Krist über Religion sprechen. „Der Buddhismus ist mir egal“, sagt sie pointiert, „es ist das Welterbe an Kultur, das erhalten werden muss. Finden Sie nicht?“, und blickt mich über den Rückspiegel an. Unter ihrem Gesicht lese ich die Worte „Objects in the mirror are closer than they appear“ und stimme zu. Vor uns eröffnet sich eine nächste Schlucht und hundert Arbeiter säumen ihren Verlauf. Sie klopfen Steine, ein Staudamm wird gebaut, allein aus Muskelkraft, wie es scheint. Ein Leben zwischen Steinen. Betroffenheit wird in unseren westlichen Augen sichtbar. „Der Mensch ist eine Ameise, nicht?“, sagt Krist und unsere Betroffenheit wird zu Trauer in einer immer dünner werdenden Luft. Und wir atmen sie ein.

„Living cultural heritage“ ist Krist's Ziel. Im Fall von Nako heisst das, dass die Tempel gerettet werden und auch weiterhin religiös benützt. Heuer hat sie ein Museum initiiert, ein Museum für die Besucher Nakos und für seine Bewohner auch. Ein Museum als Bewusstseinsquelle der eigenen Kultur und als Einkommensquelle für das Dorf. Das Museum wurde geplant und Ausstellungstücke gesucht. „Als erstes brachten mir die Tibeter eine alte Salatschüssel“, erzählt Martina Griesser, „aber später tauchten auch historisch wertvolle Gegenstände auf.“ Die Idee, dass die Einheimischen selbst produzierte Waren im Museums-Shop verkaufen könnten,

war gut, aber nicht leicht zu erklären: „Für jemanden, den wir nicht kennen, stircken wir keine Socken.“, lautete die einhellige Devise.

Siebzig Kilometer und eine halbe Tagesreise vor Nako: Das letzte Dorf vor unserem Ziel. Am Strassenrand wäscht sich eine Frau ihre Haare für einen, den sie morgen sehen wird. „It's His Holiness who is coming.“, sagt sie und strahlt uns an. „We see you in Nako.“, sagt uns ihr Mann. „We fight against calamity of nature.“, sagt das Schild am Ortsausgang.

Calamity, n.-1 (disaster) Katastrophe, feminine. 2 no plural Unglück, sächlich.

Ein Stein knallt gegen unsere Bodenplatte und Ashok seufzt. Geographisch betrachtet sind wir jetzt in Tibet, optisch betrachtet in einem Steinbruch von apokalyptischen Ausmassen. Rechtst geht's nach China, schluchtmässig, links liegt eine Windschutzscheibe, offensichtlich gebraucht. Steine poltern auf's Dach, bis Felsen überhängen und uns schützen. Langsam fressen wir die Höhenmeter hinauf auf's Dach der Welt und unsere Bodenplatte führt ein neues Geräusch mit sich, dann bremsen wir scharf. Zwei Soldaten kontrollieren unsere Papiere – Indien schützt den Dalai Lama. Wir überqueren eine frische Mure, nehmen letzte Serpentin im felsigen Nichts und dann liegt „etwas“ vor uns: Es ist gross wie ein Fussballfeld, plan wie ein Eislaufplatz und frisch asphaltiert. Ein Landeplatz, der Landeplatz für einen Gott. Dahinter liegt Nako ein 400-Seelen-Dorf aus dicht aneinander gedrängten, steinernen Häusern. Dahinter ein kleiner See, gespeist vom Schmelzwasser der verschneiten Berge, umsäumt von kargen Feldern. Doch all das ist jetzt verdeckt von Menschen, Tausenden. Sie putzen, hämmern, schaufeln, fegen, rühren Farbe mit blossen Händen an und bauen Triumphbögen für ihren Gott. „Der Besuch der alten Dame“ kommt mir in den Sinn und ich suche nach einem Grund. Die Berge um uns herum suchen nach nichts, denken an nichts. Steine klammern nicht.

Cheforganisator Hukum Chand Negi ist heiser und müde. Die sieben Jahre währenden Vorbereitungen für den Besuch des Dalai Lama lasten auf seinen Schultern und noch sind viele Fragen offen. Abends steht er seinen Gästen Rede und Antwort. Eine Journalistin will das Thema Matriarchat erkunden. „Yes, that's right“, sagt Negi, sein Vater und sein Onkel teilen sich zwar einen Frau, aber das sei nicht matriarchalisch motiviert, das habe wirtschaftliche Gründe, denn ihre Landwirtschaft sei viel zu klein, um zwei Familien zu ernähren. Und der Hubschrauberlandeplatz ist für einen Minister gedacht, His Holiness reist morgen mit dem Auto an. Dann fällt der Strom aus und auch Buddhisten tappen im Dunklen und wir zu unserer Unterkunft, vorbei an einem auffällig herrschaftlichen Haus. Das wurde gebaut für seine Heiligkeit, sagt man uns. Und die Wandfarbe ist noch feucht.

Am nächsten Tag kommt Gott. Da sind Parkplätze rar in Nako. Da wird ein Tibetisches Bergdorf binnen Stunden zur Shoppingmal, Popcorn inklusive: Die fahrenden Händler reisen an. Razu Cumar ist 27 und einer von ihnen. Mit Vater und Bruder reist er dem Dalai Lama voraus und hinterher, verkauft Schmuck an Pilger und Touristen, next stop Dharamsala. Ein anderer Händler heisst Arimash, ist 20, cool und Student. Ich frage ihn, was er studiert. „Plattenauflegen“, sagt er schelmisch und meidet die Sicherheitskontrollen, die den Hauptplatz säumen. Hasch gibt es in dieser Region zu Schleuderpreisen und Dealer wie Sand am Meer. „Buddhism is flexible!“, ruft er mir noch lachend zu, dann verschwindet er in der Menge, die sich durch die Shoppingmall drängt. Gabriela Krist finden wir im neuen Museum. Dort tropft es durch's Dach und der Regen wird stärker. „Little problem“, sagt jemand. „Let's fix it.“, sagt Krist. „Problems & Possibilities“ heisst das internationale Seminar zum Thema Buddhistische Kultur, das dieser Tage in Nako stattfindet. Auf dem Plakat hat jemand aus dem „&“ ein „R“ gemacht. „Problems Are Possibilities“ liest es sich nun. Nachmittags ist es dann soweit und auch die Sonne wird gleich kommen. Stille kehrt ein. Gebetsfahnen knattern im Wind. Tausende Menschen, Bauern

und Mönche, Frauen und Männer, säumen schweigend die Strasse, halten weisse Schals in ihren Händen. Ein Fremder drückt mir einen solchen in die Hand. Der Fremde heisst Dr. Thupten Palbar, ist Tibeter und lebt seit Jahren im spanischen San Sebastian inmitten buddhistischer Basken. Sein Elternhaus in Lhasa wurde am 17. März 1959 von den Chinesen zerstört, an dem Tag, an dem der Dalai Lama aus Tibet floh. Aber Hass sei ein störendes Gefühl, sagt er und „in a few seconds I will feel better. Better than before.“ Sekunden später: Stumme Verbeugungen im endlosen Spalier. Ein Gott fährt vorbei. Der weisse Schal in meinen Händen ist Symbol meines Besitzes und wie alle biete ich ihn dem Vorbeifahrenden an. Er nimmt ihn nicht. Er verneigt sich vor den Menschen, dann zeigt man ihm sein neues Haus. Melanie Maurer, einer Personalmanagerin aus Köln, habe er im Vorbeifahren das Herz-Chakra geöffnet, sagt sie, und ihrem Freund auch. Der liegt seither in seinem Zelt und heult. Und sie sucht nach einer Folie, denn ihr Zelt ist nicht ganz dicht.

Während der nächsten fünf Tage ist Gott bei der Arbeit. Acht Stunden täglich sitzt der 72-Jährige bei Wind und Wetter unter freiem Himmel, spricht Tibetisch und wird in Hindi übersetzt. Er fordert eine intellektuelle Auseinandersetzung mit seiner Religion, er verlangt einen Buddhismus des 21. Jahrhunderts, er erklärt Meditationsübungen und lächelt von Zeit zu Zeit. Diese „Lectures“ wirken intim und dennoch sind es Tausende, die ihm zuhören. Und von Tag zu Tag werden es mehr. Der Versammlungsplatz vor Seiner Heiligkeit ist mit bunter Seide überdacht und in Sektoren unterteilt: Sektoren für „Monks“, „Organizers“, „Press“. Die „Nuns“ sind in der zweiten Reihe sektoriert, der „Foreigners“-Sektor liegt in der Ostkurve. Dort hat Woodstock überlebt, wenn auch nur in der Grösse einer Schulklasse. Melanies Freund weint inzwischen nicht mehr, heute nimmt er Antibiotika und kotzt. Im Pressesektor sind wir zu zehnt. Ein Polizeichef, der aussieht wie Gaddafi, geht vorbei und westliche Füsse im Lotussitz sterben langsam ab. Als die Mittagspause naht, bekommt Seine Heiligkeit von den Einheimischen einen Hut samt Schal geschenkt und geht damit in die wohlverdiente Pause. „Very helpful in this chilly climate.“, flüstert er mir im Vorbeigehen zu. Ich nicke ebenso überrascht wie dümmlich und meine Pressekollegen erblassen vor Neid. „What did he say?“

Freund Oláh hat am Landeplatz einen Aufriss gemacht. Er ist 86 und eine bedeutende Reinkarnation. Mönche, die ihm begegnen, gehen zu Boden. Er aber, Abt Lopsan Denzing, wenn ich richtig verstehe, lädt uns zum Tee. Seine Unterkunft und die seiner Mönche ist ein Ziegelrohbau am Rand des Dorfes. Dünne Decken am Beton sind die Schlafstatt dieses Greises. Sein junger Kollege flüstert uns zu, dass His Holiness gestern extra gekommen sei, um mit dem Alten zu plaudern. Worüber sie geplaudert hätten, frage ich. Der Abt murmelt uns lautstark etwas vor, dann grinst er zahnlos. „No sense?“, frage ich, „No teeth!“, sagt er, dann ist sein Englisch erschöpft. Wir trinken süssen Tee, der Mönch rechts von mir trinkt keinen, weil es nicht genug Tassen gibt, und Freund Oláh und ich ertrinken in unserem Lächeln. Am Heimweg erklärt mich ein volltrunkener Polizist zu seinem besten Freund und ich frage ihn freundschaftlich, warum er einen Schlagstock bei sich trägt. „No discipline in India!“, schreit er in die Nacht und will uns seiner Kompanie vorstellen. Wir aber sind zum Essen geladen. Es gibt Selbstgebrannten aus Wassergläsern und Gabriela Krist plaudert mit einem echten König. Auf dem einzig erhöhten Polster in diesem Raum sitzt die zweite Reinkarnation des Tages, ein ehrwürdiger „Rinpoche“, ein „Juwel des Buddhismus“. Dieses Juwel spricht fast ausschliesslich mit dem Festnetz, das es hier gibt. Dann ist es satt und geht, wie auch wir, ganz flexibel. Auf unserem Heimweg strahlen hunderte Zelte im blauen Mondlicht und dahinter leuchten in stummer Erhabenheit die weissen Gipfel des Himalaja, dem „Lageraum des Schnees“, und es riecht nach Kot.

Der Dalai Lama hat in der Morgendämmerung unbemerkt die alten Tempel besucht und dort meditiert. Seine Meditationskiste steht noch dort. Stille erfüllt den menschenleeren Raum und Gabriela Krist hat Zeit, mich durch ihre Wissenschaft zu führen. Sie spricht von Notsicherungen, Salzhorizonten, Absprengungen, Goldauflagen, Infusionen und Infiltrationen. Dieser Buddha hier ist aus dem 16. Jahrhundert und hat noch statische Gebrechen, die hölzerne Decke war einst polychrom und ist über die Jahrhunderte hinweg verblasst. Als ich den Haupttempel betrete, von aussen betrachtet ein unscheinbares fensterloses Haus, finde ich mich in einer buddhistischen Kathedrale wieder. Kaum bin ich alleine, gehe ich in die Knie. Am Altar entdecke ich Opfertgaben: Zwei Äpfel, eine Packung Good Day Crackers, eine Flasche Coca Cola 0,5l und vier Nelken. Dann kommen Einheimische. Sie sprechen, lachen, essen, nehmen mich nicht wahr. Eine alte Tibeterin wirft sich auf den Boden, weint mit sich allein vor Prajna Paramita, dem „Herz des vollendeten Wissens“, einer weiblichen Skulptur, der letztes Jahr noch beide Arme fehlten, wie ich von Uni-Assistentin Susanne Beseler weiss. Ich beobachte Kinder, die sich den Rotz von der Nase wischen, ihre Hände streifen respektvoll über uralte Mandalas und Wände, die Wissenschaftler nur mit Watte berühren. Im Abseits steht Frau Krist, betrachtet die Menschen und strahlt ein Lächeln, das „Cultural Living Heritage“ heisst. Ich gehe zu ihr und erwarte emotionale Worte. „Für die zwei kleinen Tempel brauchen wir noch Gelder.“, sagt sie bestimmt. Vor dem Tempel steht das Juwel und gibt eloquent TV-Interviews. Vorbeikommende Tibeter verbeugen sich tief, manche knien sich vor ihm hin und berühren zaghaft seine Schuhe. Er nimmt diese Ehrerbietung nicht wahr, vielleicht nimmt er sie hin; Alltag eines Juwels.

Drei Gerüchte gehen um: 1. Richard Gere kommt. – 2. Die Al Kaida auch. – 3. Die Österreicher bekommen eine Audienz. Zwei Stunden später: Die österreichische Delegation steht vor dem Haus des Dalai Lama und wartet. „Zehn Minuten noch.“, heisst es. Österreich steht im Regen und wirkt nervös. Dann kommt er und lächelt uns an. Frau Krist überreicht ihm ein Buch über die Arbeiten an den Tempeln, er übernimmt es dankende, verbeugt sich tief, dann spricht er von seinem Zuhause: „Tibet is a dying nation, but Chinas population wants democracy“, und wie oft Dr. Krist denn schon hier war. „Öfter schon“, sagt sie und er hofft, das Wetter sei da besser gewesen. Dann hüllt er die Delegation in weisse Schals. „He is one of you?“, fragt er. Im Off sagt jemand ja, und er haut mir kräftig auf die Schulter. Weisheit in Aktion. Dann verabschiedet er sich, nimmt das Buch und geht zur Arbeit. „Flip flop“, machen seine Flip Flops und eine Ecke weiter gehen Zehntausende in die Knie.

Abends stehen Tibetische Familien im Museum Schlange, betrachten ihre eigene Geschichte und unterhalten sich aufgeregt. „Tausend Mal haben sie mir beteuert, wie wichtig ihnen das Museum ist. Bis zur Erbsenernte, da waren plötzlich alle verschwunden. Da konnte ich einpacken, im Ernst. Wenn ich noch einmal ein Museum machen dürfte dort oben, dann ein Erbsen-Museum, Erbsen sind ihr wahrer Lebensmittelpunkt.“, sagt Martina Griesser. Sie hat die ärmsten Bauern gesehen. Die arbeiten nachts mit Taschenlampen auf den Feldern, weil da das Wasser billiger ist – Taschenlampenbatterien als Lebensversicherung ihrer Ernte. „Als Dank für meine Akku-Taschenlampe, im Baumarkt für 3 Euro gekauft, wollten sie mir einen antiken Druckstock für Gebetsfahnen schenken.“, sagt Martina und da war sie beschämt. Nach der Ernte, als Hindus, Buddhisten und Katholiken wieder gemeinsam am Museum werkten, war sie berührt. Aber das nächste Mal geht's um Erbsen.

Fünf Uhr morgens: Ashok wartet auf uns im Fahrerlager. In Gottes Haus brennt bereits Licht. Gaddafi schläft vor seinem Zelt. Razur Cumar schläft mit Vater und Bruder unter Plastikplanen. Aus Melanies Zelt tritt ein geschwächter Mann. Der Dalai Lama reist morgen ab. Dann wird sein Haus verschlossen, für immer. Seinen, den Tibetischen Buddhismus, nennen manche den Express-Buddhismus: Der Weg ins Nirwana geht sich in einem Leben aus (wenn man Glück hat und wenig attachment). Wenn man zu sehr geklammert hat, probiert man's im nächsten. Buddhism is flexible. Ashok gibt Gas und im Rückspiegel verschwindet eine Welt. Darunter steht: Objects in the mirror are closer than they... „Die schlimmsten Erlebnisse? – Das sind die Abschiede.“, sagen die Studierenden. Ein klarer Fall von Anhaftung. „Slow drive, long life.“, rät die Firma am Strassenrand. Next Stop: Albania.



Fig. 269: Monks attending the visit of the Dalai Lama in Nako.



Fig. 270: Visit of the Dalai Lama.



Fig. 271: Impression of Nako.

Fig. 272: Impression of the Lotsawa
Lhakhang.

next page:
Fig. 273: Inhabitants of Nako.





A high-altitude mountain landscape with snow-capped peaks and a valley below. The foreground shows a rugged, brownish mountain slope with some sparse vegetation. The middle ground features a valley with a dirt road and some small structures. The background is dominated by large, snow-covered mountain peaks under a clear blue sky.

Konservierungswissenschaft. Restaurierung. Technologie, Band 13
herausgegeben von Gabriela Krist

The Nako temple complex with its earliest structures dating back to the 11th century is an extraordinary testimony of early Tibetan Buddhism not anymore preserved in today's Tibet. Endangered by the rough environment, improper treatment and frequent earthquakes, the outstanding monuments were re-discovered by scholars from Austrian universities in the 1980s. The transdisciplinary research project carried out over more than 20 years led to in-depth studies, preservation and model-like conservation of the temples and their artworks.



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