## the project

### information

# Buddhist Architecture in the Western Himalaya

The area of the Western Himalaya covers today parts of Pakistan, Tibet, India and Nepal. With the establishment of the Kingdom of West Tibet in the 10th century, this region played a crucial role in the spreading of Buddhism from India to Tibet.

The monasteries of this area functioned as important centers for the formulation of various theories, the translation of texts of Mahayanabuddhism from Sanskrit into Tibetan, as well as the spreading of artistic styles in general. A number of the monasteries and temples from this period are preserved until today, in part in their original condition. A majority of them were located in today's India (Ladakh and Himachal Pradesh) and West Tibet. Due to the difficult accessibility of the Western Himalaya, both for geographical and political reasons, the current state of the research must be considered to be in its initial phase.

The research - project (FWF FSP) consists of several interconnected subprojects, of which some were already promoted during the last 15 years by the FWI while others were added later.

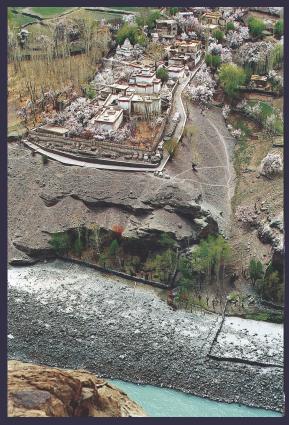
The close co-operation of different disciplines is deemed necessary for the comprehensive analysis and study of the region's culture from various perspectives. For the region's culture, the monastic sites are the most important remnants and are therefore subject to a comprehensive analysis including their architecture, paintings, sculptures inscriptions, handwritings and illustrations as well as their iconography in its relation to rituals and oral traditions.

The FSP project involves 20 Austrian scientists who work in close co-operation with foreign institutions, such as the Universities of Paris and Oxford, the Istituto Italiano per l'Africa e l'Oriente (IsIAO) in Rome, the Archaeological Survey of India and the Eremitage in St. Petersburg.

FWF Austrian Science Fund
Project number Main point of research S87
Project title Cultural History of the Western Himalaya

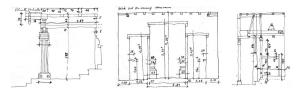
Subproject
Project manager a.o.Univ-Prof. DI Dr. Holger Neuwirth
Scientific coworker
DI Carmen Auer
DI Erich Rieger
DI Martina Rössl
Free coworker
DI Gernot Angerer
DI Dr. Anton Reihofer

Contact TU Graz - Institute of Architectural Science
Rechbauerstraße 12, A-8010 Graz
Tel.: 0043 316 873-6940
neuwirth@bkst.tugraz.at
http://www.archresearch.tugraz.at



FWF - FSP Graz University of Technology Faculty of Architecture Holger Neuwirth

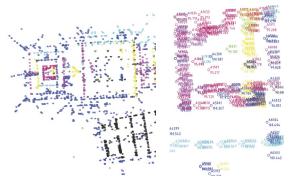
## methodology



Field research sketch book Wanla/Ladakh

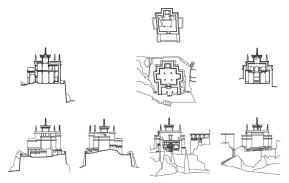


Photo documentation and photogrammetric photographs Alchi/Ladakh



Measurement of three-dimensional points through digital tachymeter Tabo/Spitti/Himachal Pradesh

In the first period of the research (the field study) selected monuments will be measured and surveyed with the aid of combined technical resources focusing on site-layout, building form and dimensions, construction, building material as well as damages on the buildings.



Representation of two-dimensional maps trough CAAD Wanla/Ladakh



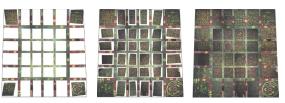
Three-dimensional models of the construction Wanla/Ladakh



Generated site plan of the temple through digital points Tabo/Spitti/Himachal Pradesh

The analysis of the surveyed building includes reports as well as the drawing of CAAD plans. In those cases, where buildings have been changed in shape and structure as a result of repair works or have been (partly) demolished, the original form will be reconstructed virtually in a 3D-animated model. In addition to its analytic aspect, which aims at a holistic typology (form, structure and detail), architectural research forms the necessary basis for future repair, conservation and maintenance works.

#### visualizations

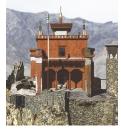


Representation of a ceiling painting through picture adeption and montage. Lalung/Ladakh



Tree-dimensional models of the volumina Wanla/Ladakh





Draw up of three-dimensional models trough CAAD to show historical building stages. Wanla/Ladakh

The principal goal of the architectural research is the development of a methodology for the conservation of monastic Buddhist buildings. Most of the monastic buildings in the Western Himalaya are in an ever deteriorating condition. The reasons for the deteroriction are found in their insufficient maintenance, low quality of materials used and the construction principles themselves. Finally, the sustainable use of the religious monuments can be seen as the best guarantee for socio-cultural continuity and the conservation of the cultural heritage as a whole.