

THE DHULIKHEL CONSERVATION PROJECT - THE INVENTORY METHOD BY AN INTERACTIVE CD

A Study supported by the EU within the Asia Urbs Programme

Wolfgang Koellisch *

Introduction and background

Dhulikhel is a small town located 30 km east of Kathmandu. Situated on the ancient trade route to Tibet, and densely populated by the ethnic Newars, the known history of the settlement has been traced back to the early Malla period (16th century) and beyond. The urban structure is particularly precious as, besides containing many examples of the woodcarving for which the Newars are famous, it is based upon an ancient Hindu planning doctrine. The town's traditional domestic dwellings are evidence of a rich cultural heritage. However, the visible dilapidation of much of the ancient urban structure, and the lack of any organised attempt to preserve it, has led to a largely uncontrolled and rapid rate of dismantling and new building activities. During the dismantling phase, detailed building surveys - even of recognisably historic buildings - are uncommon. This absence of documentation ensures that what is lost is soon forgotten.

Against this background of the steady destruction of a historically and culturally sensitive area, the objectives of the study project are clear. Firstly, to create a realistic and workable programme of action for the conservation of threatened architectural heritage in Dhulikhel. This will be enabled by the data collections to be undertaken - including building surveys, questionnaires, consultation meetings - and through co-operation and collaboration between the townspeople, the municipality and the European partners. Unlike other conservation projects, the emphasis will be on the preservation of private, rather than public, monuments (domestic dwellings of historic value, traditional street frontages etc). The creation of the Monument Inventory will be an important basis for subsequent conservation initiatives. A detailed strategy for the sustainable long-term funding of conservation in the target area will then be developed by the municipality and its partners.

Out of the preliminary study there will also emerge a clearer conception of the importance of the urban environment. The requirements of urban planning, rarely addressed by local government in Nepal, must become a higher priority. Here the knowledge and experience of the European partners will help to ensure that the municipality develops an improved code of urban planning and conservation. In particular, it

was the traditional domestic dwellings of the ethnic Newars - honed to practical and symbolic unity of purpose over centuries - that were clearly under the greatest threat. Unlike the temples, these dwellings do not fall under the protection of existing government legislation on monuments. Invariably the old structures have come to be replaced by buildings that are often much larger, and which are hastily and poorly constructed in a way that is highly detrimental to the traditional urban fabric. Although the Municipality has authority over the granting of planning permission and could order the demolition of illegally constructed buildings, in practice this was rarely enforced. The absence of any data collection concerning building and dismantling activities in Dhulikhel has been another obstacle to the preservation of the town's cultural heritage - as has the fact that no inventory of historic sites had ever been compiled. What was destroyed was soon forgotten.

The damaging effects of rapid modernisation upon the physical cultural heritage of Dhulikhel have been exacerbated by a lack of education and awareness. The local citizens feel little responsibility or inclination to preserve their historical buildings. In part this is due to a low level of cultural awareness, and a failure to value their cultural heritage. The existing school curriculum makes negligible provision for the teaching of cultural history. At no time have the benefits of cultural heritage preservation been clearly presented, either to the local inhabitants or, just as importantly, to the decision-makers. Yet without this it remains difficult to envisage a change in popular attitudes towards cultural heritage and its conservation.

It was with these diverse challenges in mind that the study phase for the Dhulikhel Conservation Project was first conceived.

Modern documentation techniques

Photo documentation

All of the significant dwellings and public buildings are now documented with high quality digital photos (5 million pixel - image size 2560x1920) and stored on CD.

There is also a collection of 1,100 slides concerning the religious objects of art in Dhulikhel (completed as part of an

unrelated project in 2001) which is currently housed at the museum of Indian Art in Berlin. The iconographic research is ongoing and the decision was made to store one copy of all slides in Germany to avoid damages through the wet climate in monsoon.

For 19 example dwellings in wards no. 2,3,4,5 the data collection was undertaken in a much greater detail. It includes the location, style, age, and condition of the house, and photographs. *see CD-ROM*

Photogrammetric surveys

Furthermore, a photogrammetric survey was done for three houses, as an example. The layer drawings will be a basis for the development of a restoration, conservation or renovation concept.

The inventory

Research for suitable methods

The traditional methods are fine for the research and collection work e.g. to go out with paper forms and a camera. But there are several problems relating to the storing of files and keeping the work active and actual. There is no existing book culture in Nepal and due to the climatic conditions – more than 3 months of continuous rain during monsoon – paper documentation is difficult to maintain over a long period of time. Yet for effective inventories and documentation of important historic sites and dwellings it is imperative to have long lasting and sustainable records. At the same time the information should be accessible and attractive to potential users. That is why the project team concluded that it was necessary that the data should be preserved in an electronic form, in addition to paper formats.

Design of a city map

A conservation architect and a group of German architecture students completed the Dhulikhel city map during the study phase, together with the assistance of the Municipality technical section.

The map was later on digitised and linked to a database, so that it can provide necessary details and information.

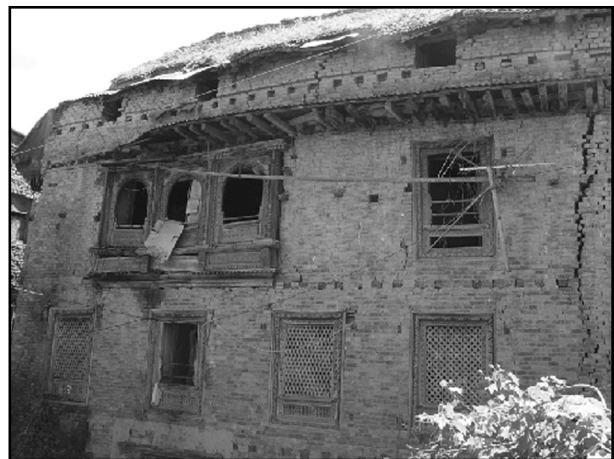
While researching the most effective inventory method it became very clear that the most sustainable technique would be a digitised map (vector programmes) linked to a database. Using a technique of information layers over the map, like a geographical information system (GIS) will be the best method of creating a sustainable inventory for the municipality. On one hand it will enable the local engineers to use the database and to keep it up-to-date, and on the other hand it is not so difficult to store a data collection on a CD. Paper files are not very sustainable due to the climate and the local way of recording data. It is also a much more economic way to store a huge amount of photographs on CD's instead of printing all of them out. This CD was created to provide an example of how the system will work. It shows 20 objects with 60 photos and a current linked data information of each of the

20 objects. Nineteen significant buildings and one religious site are visible by a mouse click at the filled objects on the city map. It is also a much more economic way to store a huge amount of photographs on CD's instead of printing all of them out.



Photogrammetric and rectification example of a Newar house

e.g. photos of the present cultural heritage situation in Dhulikhel like:



* Wolfgang Koellisch

Wolfgang Koellisch, born 1949 in Fürth/Bay. Germany
Master craftsman – carpenter, Studies in London, Tübingen, Wuppertal and Konstanz – Dipl.Ing. Architect – Specialist in conservation and restoration architecture, 28 years working experience in Germany, Italy, Yemen and Nepal
Main sectors: Documentation, conservation and reuse concepts for historic buildings and ancient urban settlements as well as inventory and research work in Europe, Nepal and Yemen

