

VILLAGE ARCHITECTURE IN SUMATRA

A comparative study: Toba Batak, Karo Batak, Minangkabau

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INTRODUCTION

Andrea Rieger-Jandl, Irene Doubrawa, Erich Lehner

The architecture of Sumatra offers some of the most unique examples of the built heritage of Indonesia. The roof structures with their distinctive gables and upward-rising spires have become a symbol of the richness of the Indonesian built heritage and the important role that architecture plays in the identification processes in Indonesian history. The roof structure is a physical manifestation of mythological stories. The people of Sumatra derived the shape of the roofs from both the shape of the boats which had brought their ancestors to the island, and from the shape of the water buffalo, which played an important role not only in agriculture but also in the battles fought for independence. The shape of boats as well as the buffalo's body, its head and its horns have clearly influenced the physical appearance of roof structures. Another common feature of the architecture of Sumatra is the tripartition of houses into substructure, middle structure and roof zone. This tripartition has also got a spiritual analogy where the substructure represents the underworld, the middle structure the world of humans, and the roof is reserved for the ancestors, the spirits and the gods.

With the three ethnic groups of the Karo Batak, the Toba Batak and the Minangkabau these characteristic house typologies have been more or less firmly established as symbols of identification, as an expression of uniqueness within the multi-ethnic Indonesian state and as images that serve the growing tourist trade. However, being different and unique is only one side of the coin. The other side is the fact that the architectural heritage is gaining importance as a symbol of identification and a sense of belonging in a rapidly globalized situation, where a lack of security needs to create new images of self and of one's roots.

Although the different building traditions of Sumatra are now more in the focus of tourists and researchers alike, there is little academic work available. Despite the fact that a variety of detailed studies on the architecture of different ethnic groups in Sumatra exists (see e.g. Marcel Vellinga, Gaudenz Domenig etc.), there exist no comparative studies which put the specifics of the different building cultures in a related context. Since many buildings are in a state of decay and traditional architecture is on the verge of extinction, it is now more important than ever to analyse and document every aspect of this important heritage.

The Institute for the History of Art, Building Archaeology and Preservation at the Vienna University of Technology has a long history of research on Indonesian architecture. This publication is the result of a joint excursion to Sumatra by students and teachers from the Faculty of Architecture (TU Vienna) and the Institute for Social and Cultural Anthropology (Vienna University) in February 2014. During the excursion the focus was on the architecture of the Toba Batak, the Karo Batak and the Minangkabau. However, since there is a great variety of architectural expressions also within these three groups, we had to confine our investigations to the area around Lingga (Karo Batak), to the island of Samosir (Toba Batak) and to the villages in the highlands around Bukittinggi (Minangkabau). The main task was not only to examine the architecture of each of the three ethnic groups, but also to compare specific formal and structural features in order to identify a kind of system which could contribute to a more profound cognitive understanding.

While some articles were written by authors who had done quite some background research in Indonesia, other contributions were written by

students who had no previous experience in doing field work in the given context. However, since they looked upon the situation with 'new eyes', their unprejudiced view led to many interesting discussions and helped to focus on the most fundamental questions and principles. Thanks to the hospitality of the people of Sumatra and the welcoming atmosphere in the villages, the students of Architecture used the opportunity to carry out building surveys and to examine structural details, while the students of Anthropology conducted interviews and gained valuable background information by talking to the inhabitants of the houses under investigation. While it was not possible to carry out in-depth studies within the limited time available, it was the variety of approaches, the many disciplines represented by the group of students and their great commitment which still enabled us to gain valuable insights and profound results.

This volume comprises twelve papers, each of which has a focus on one particular aspect of the vernacular architecture of Sumatra, but they share the common goal of providing a comparative view of the architecture of the different ethnic groups visited.

Thomas Mitterecker's paper at the beginning of this volume is an introduction to Sumatra's vernacular architecture and discusses the prevailing climatic and topographic situations on the island and their influence on local architecture. It includes topics such as village structures, orientation of houses, building materials and ventilation, as well as typical features of the buildings, such as raised floors, large roofs and the design of walls, floors and openings.

During field work on Sumatra, Marie Sophie Plakolm and Sarah Schurian focused on the study of the village structures. Their paper provides impressions of some of the Karo- and Toba Batak settlements visited, and drawings which focused on the situation of traditional houses in today's village structure. They further deal with the functions of the traditional buildings in the villages, the use of village space and infrastructural topics, such as the availability of water.

Erich Lehner provides a deep insight into aspects of the orientation of Batak and Minangkabau houses. In his paper he explores the principles of above-below, front-rear and right-left, as well as the related orientation of buildings and of their construction elements. Then he enters into a detailed discussion on the interior spatial division of buildings and the relation to the building's outer appearance, with a special focus on the design of entrances and the principle of symmetry.

In their paper about the organization of space, Milena Hammel and Andrea Wolf present building surveys that were conducted during field work in Sumatra and they analyse different aspects of the spatial organization of the surveyed house types. Thus they explore how the interior and exterior spaces are connected and also the organization of the interior space, and extensions that are added to the houses.

After the presentation of field work conducted by means of analysing village structures and carrying out building surveys, two more papers focus on the houses' residents. Henriette Fischer and Sigrid Ronacher analyse family structures and their influence on the dwelling architecture of the ethnic groups visited during field work. Besides studying the above mentioned ethnic groups on Sumatra they also investigated the dwellings of the Toraja on Sulawesi. In their paper they provide ground plans acquired during the visits of various houses and analyse them from the point of view of the functional differentiation of interior space. Kim Kadluba's article focuses on women in the Minangkabau and Batak societies. After an introduction on the social principles of the ethnic groups, focusing on the role of women, she discusses social conventions and duties concerning women, based on interviews conducted during field work.

In connection with the well-known concept of the tripartite house, the next three papers deal with a detailed analysis of each of the three zones of the house. Irene Doubrawa sets out with a paper about the often neglected substructure of the house, offering an introduction to the function and significance of the substructure as the foundation

of the house, followed by a detailed discussion on the different construction techniques used for Minangkabau, Toba-, Karo- and Simalungun Batak houses, and how the apparently rather different house types may be related. Kristina Koller and Martin Schneider continue with an analysis of the wall zone, discussing the different types of construction and the inextricably interrelated design of the wall zones, including their ornamentation. They furthermore focus on the required openings in the wall zone and the related topics of light and ventilation. Finally Sabrina Fleischer and Christoph Müller concentrate on the roof zone of the houses of North- and West Sumatra. They provide a detailed analysis of the complex construction of the roofs of dwellings as well as of other building types and furthermore explicitly focus on the design, symbolism and ornamentation of the roof as the most prominent part of Sumatran houses, including recent trends and interpretations concerning the roof zone. Completing the detailed analyses of each of the three zones of the house, Himasari Hanan's paper deals with the expansion of traditional houses in Huta Siallagan and includes an analysis of two examples how houses are adapted to today's requirements.

While the main focus of most papers is on dwellings, two papers specialize on other building typologies. In his paper about Pematang Purba, Christoph Müller explores the palace compound of the Simalungun kings, which was inhabited until the middle of the 20th century and today is a museum. With the detailed account of the construction and functions of all buildings making up the compound, he discusses the most probably very last examples of traditional Simalungun architecture. Rafaela Mückler-Liendl focuses on the topic of rice storage in Sumatra. After a comprehensive introduction of the topic, she discusses the construction, ornamentation and use of rice barns, details of storing rice, as well as the process of rice pounding and related tools and buildings. In an additional section she presents Indonesian rice barns in German museums, which symbolize bridges between the museums and Indonesian cultures.

Andrea Rieger-Jandl's paper about recent changes in the architectural identity among the Minangkabau, Toba- and Karo Batak completes this volume. Setting out by addressing problematic situations, such as the loss of traditional building materials and traditional knowledge, she gives a detailed account of changes in the village architecture among the different ethnic groups, including traditional and present forms of expressing status and prestige, and she discusses architecture as a symbol of identity. She concludes with a summary of the parameters that seem to be of major importance in view of the most recent and probably also the future changes of the built environment, which certainly offer a great potential for ongoing research concerning the village architecture of North- and West Sumatra.