

**TRADITIONAL ARCHITECTURE ON QESHM ISLAND/PERSIAN GULF, IRAN**

WITH A FIELD STUDY IN THE VILLAGES OF CHAHU GHARBI AND CHAHU SHARGHI

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## Preface

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The Qeshm region is part of the southern Zagros range and archaeological evidence can be traced back as far as the Paleolithic period. In the Parthian and Sasanian periods there were many ports in this region, which were the center of Iranian trade from the Persian Gulf as far as East Africa and the western littoral of the Indian subcontinent. The existence of several Islamic ports is proof of the great importance of the island for Iranian trade with neighboring regions. Archaeological excavations may shed light on the architecture of the Qeshm region in ancient times, but there is evidence of a continuous Iranian presence also in other periods in this part of the Persian Gulf and various architectural forms are clearly related to this. Arches, domes, towers and rock hewn architecture in the form of crypts on the one hand, and wind catchers, cisterns and other hydraulic structures on the other, all go

to show the diversity of architectural forms that prevailed in the region. The local people have so many memories of night-time conversations under wind catchers, and local women have a deep relationship with the cisterns, the sole water resources available to them.

In this major work various aspects of the local population's knowledge of the traditions on Qeshm Island have been documented. This makes it possible to understand the different facets of people's relationship with the vernacular architecture of the Persian Gulf. This architectural documentation of the two important villages of East Chahou and West Chahou and also of some other villages on the island, such as Laaft, is the result of precise fieldwork and was only possible because the local community was closely involved.

## Preface

Erich Lehner

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The history of mankind is marked by innumerable cultural achievements in the fields of humanities, technologies and arts. All these achievements interacted with the related social environment in various regions and in different eras. In countless building cultures, the close connection between society, technology and art merged into one entity – an entity, which did not lead to uniformity, but on the contrary, created an amazing variety of architectural characteristics.

However, globalization has reached even remote regions of the earth, drowning all cultures by applying some uniform “international” architecture that does not take into consideration any individual imprints of regional culture, nor any local resources, and not even any specifics of regional climates.

We may still find regions with a cultural identity, where local building traditions are still alive and where even skills exist for adapting such traditions to the changing world of technology and society, but these are the great exceptions. It is to be expected that within the coming generations these adaptations will also be wiped out and superseded by a global way of building.

So it is all the more important to provide documentations of local building traditions that are still alive. This task is carried out by our Institute with great intensity by implementing numerous projects with the aim of surveying and analyzing vernacular architecture in Asia, Africa and Oceania. The integration of various scientific disciplines is considered to be essential in these projects, and so also experts in the field of Cultural and Social Anthropology as well as Sociologists and Art Historians are taking part. Furthermore, close cooperation with local people and regional scholars has been sought in order to be able to cover all aspects of research on building cultures.

One of the main objectives of our projects is to highlight the existing wealth of knowledge regarding the sensible use of regional resources and sustainable methods of building in difficult climatic conditions, to develop ways of how to apply this knowledge in our contemporary environment of society and technology. Moreover, with the help of our projects we are hoping to raise the awareness of the local population for their own identity.

## Introduction

Andrea Rieger-Jandl

In February 2015 an interdisciplinary team composed of nineteen teachers and students from the Faculty of Architecture, Vienna University of Technology, two anthropologists from the University of Vienna, one surveyor, and one student each of geology, sociology, and restoration visited the island of Qeshm, Iran. We met with more than thirty experts and architecture students from all over Iran, especially with representatives of the Cultural Heritage Office of the Qeshm Free Zone Organization and students from the IVAN cultural group. Our common task was to study the vernacular architecture on Qeshm and work out suggestions and recommendations on how to preserve the valuable architectural heritage on the island.

An introductory meeting was held on 2nd Feb. 2015 in the convention centre of Qeshm town, and there followed a 5 days trip to explore the historic villages, the cultural highlights and the beautiful natural landscape the island has to offer. During this trip we were greatly supported by the Cultural Heritage Office, by the different village heads and above all by the people living on Qeshm, who provided us access to their houses to give us a profound impression on housing structures and the local way of life. We were able to sum up our first impressions and research findings in the course of a concluding lecture series at the University of Qeshm on 6th Feb. 2015.

We visited more than ten villages on the island, including Laaft, Haft Rangoo, Zirang, Holor, Dargahan, Peiposht, Zainabi, Karavan, and Kosheg, to obtain a comparative view of the village structures. In-depth research was concentrated on the villages of Chahu Sharghi and Chahu Gharbi, where we undertook detailed surveys of eleven courtyard houses and three palm garden houses. We divided the research teams into mixed groups of Iranian and Austrian students. We applied

architectural surveying methods using tape measures and simple laser distance measurement devices. Together with the anthropologists we had prepared guidelines for semi-structured interviews, thus when we visited a house, some of the students engaged in measuring the house while the others conducted interviews with the inhabitants, to obtain more detailed information.

During our research stay we learned a lot about how people used to live on the island as farmers, as fishermen, as boat builders, traders etc., about the refined way they collected water for irrigation and drinking water, and how they cultivated the palm gardens. Above all we tried to find out how the islanders used to build their houses. We learned about the fascinating traditional system of cooling the houses with the help of wind catchers (*badgir*), about the organization of the rooms, the importance of the central courtyard, and about the different building techniques and local materials that were used.

As everywhere else, things are also changing quickly on Qeshm Island and effects of globalization strongly influence the way houses are built. Wind catchers are on the decline, new building materials are introduced and there is a need to extend homes and provide more space. In the course of the last two decades the introduction of electricity, air conditioning devices and salt water purification plants has made life easier for the villagers.

However, although recent changes have undoubtedly brought many benefits, there are also concerns and threats regarding the cultural, ecological and economic aspects of modern developments. In terms of the cultural development of the island, preservation of the valuable architectural heritage is important in order to keep the islanders connected with their past and to enhance identity formation processes based on a valuable common heritage. Regarding the

ecological context and the ongoing sustainability debate a lot can be learned from the traditional built environment. Over centuries the inhabitants of Qeshm have developed refined forms of buildings which are optimized with a view to the difficult climatic conditions and the scarcity of resources, and it is important to preserve this valuable knowledge for future generations. As regards the future economic development of the island, tourism could play a much more important role, especially since Qeshm still has great natural beauty and an interesting cultural heritage to offer. In a globalized world, tourists are increasingly searching for the characteristic and the unique features, and in many cases it is the view from outside which raises awareness among the local population regarding their cultural resources. In this respect tourism can provide the important initial impetus for both the preservation of cultural heritage and the economic development of the island.

As we could find out, a lot of traditional knowledge still exists. The challenge will be to make use of this knowledge and to develop a living environment which will be responsive to both the changing lifestyles and the need for more sustainable solutions and processes of identification with the local architectural language.

Let's take the wind catcher (*badgir*) as an example: The *badgir* has worked well as a cooling device during the hot summer months for decades and at the same time it has become an important identification mark in the villages and a way to express the status of a family. The only shortcoming is that the cooling function of the traditional wind catcher has been limited to one room, whereas today there is a need for extended living space and more rooms, and thus most rooms are cooled with the help of modern air conditioning devices. However, new ideas for channelling the air, based on the vast traditional knowledge of ventilation systems in Iran, e.g. sophisticated ventilation by means of the courtyard, wind towers on specific spots, clever shading devices and adequate use of heat and moisture storing materials, could support a more comfortable living environment and help to reduce the need for energy-consuming air

conditioning systems.

As for the building materials used: Earth and stone have always been the traditional building materials on the island. They were easily available, cheap, and people used to know how to use them for building. Today most local materials have been replaced by energy-consuming materials such as concrete or burnt bricks. Most of these materials need to be imported, they are expensive and special firms are needed to do the construction work. While stone and earth have special heat and moisture storage capacities, which influence the indoor climate in a positive way, the thin walls made of concrete blocks which are mainly used today, heat up quickly and create an unpleasant hot (or in winter cold) indoor climate. Also the use of cement plastering instead of the traditional earth plastering prevents the walls from breathing. The widespread belief that cement plastering is a long lasting solution in damp climatic conditions as on Qeshm is not true, as can be seen in the villages, where the plastering of most houses is in a very bad condition. Although earth plastering has to be constantly refurbished, cracks can easily be fixed without the need of taking the whole plastering down, as has to be done when using cement. In this respect earth plastering is much more long-lasting in comparison, it is available on the island, it is cheap and can be repaired by the inhabitants themselves. Earth plastering alone would help to give the villages a much more attractive overall appearance.

These are only a few examples of where the integration of traditional approaches in today's building processes could be highly beneficial. A first step to improving the situation would be to raise awareness among the inhabitants regarding the value of traditional building methods, and to make sure that these approaches are not considered to be backwards-oriented and old-fashioned, but that they can offer interesting solutions for a more comfortable contemporary living environment.

In summary it can be said that the preservation of the traditional built heritage can offer three major benefits: It can support the identification of the inhabitants with the built heritage of the island, it can offer solutions for providing more sustainable

and energy-efficient living conditions, and it can promote the development of tourism as an important economic factor.

We hope that the articles and building surveys in this volume can in some way contribute to supporting the valuable work of the Cultural Heritage Office, to raise awareness for the necessity of preserving the architectural heritage of the island and to recognise its potential for the development of a sustainable living environment for future generations.