

AicE-Bs 2012 Cairo
ASIA Pacific International Conference on Environment-Behaviour Studies
Mercure Le Sphinx Cairo Hotel, Giza, Egypt, 31 October – 2 November 2012
“Future Communities: Socio-Cultural & Environmental Challenges”

Vernacular Wisdom: The basis of formulating compatible living environment in Oman

Noor Hanita Abdul Majid^{a*}, Hokoi Shuichi^b, Nozomi Takagi^b

^aInternational Islamic University Malaysia, 53100 Kuala Lumpur, Malaysia/University of Nizwa, Nizwa, Sultanate of Oman.

^bKyoto University, Kyoto, Japan.

Abstract

Vernacular architecture has been accepted as a product that has its roots both in culture and climate. This paper examines the architectural elements of Omani houses to outline the responses towards culture and climate by analysis of house samples and survey responses. The survey gathered data on the attitude and behavior of the inhabitants with evidences of set point temperature, operating hours and thermal sensation. The results of the analysis on design parameters of vernacular and contemporary houses and the current behavior and attitude of occupants suggested the basis of formulating compatible living environment in Oman.

© 2012 The Authors. Published by Elsevier Ltd. Open access under [CC BY-NC-ND license](https://creativecommons.org/licenses/by-nc-nd/4.0/).

Selection and peer-review under responsibility of the Centre for Environment-Behaviour Studies (cE-Bs), Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA, Malaysia.

Keywords: Vernacular architecture; contemporary houses; socio-culture; climate

1. Introduction

As it is true in many different context, the vernacular houses of Oman is claimed to be coherent with the socio-cultural context and need to have a comfortable house in the hot arid region. Vernacular architecture has been claimed by many to define a concept that relates to environmental, technological and social context they were built in (Arbolela, 2006). She has discussed the definition of vernacular architecture with reference to many scholars including Oliver (1997) and Rapoport (1969). The relationship between socio-culture and climate to vernacular architecture has been comprehensively expressed by Fathy (1966). He forwarded a comprehensive definition of the vernacular wisdom stating

* Corresponding author. Tel.: +0-000-000-0000 ; fax: +0-000-000-0000 .
E-mail address: noorhanita@gmail.com

that vernacular architecture has resulted through time and accumulated expertise. Fathy further asserted that the development of vernacular architecture has integrated local materials, climate and socio-culture. These discussions show the agreement that vernacular architecture has resulted from the merging of both socio-culture and climate of a place that evolved and developed due to the needs of the society.

In Oman, the traces of vernacular buildings are still very much evident due to the recent changes after Independence in the 1970's. Many vernacular buildings are still standing but many are in dilapidated conditions and abandoned. The local vernacular architecture can be categorized into various building typologies; forts, castles, mosques and houses with variations depending on the location, building and material used for construction. The buildings are regional based which means that it was built as a reaction to the character and constraints of the location, climate, available material and lifestyle. The differences due to the mentioned factors are more evident in the house typology than the mosques, castles and forts. The latter typologies are much similar to each other with analogous designs and building materials. However, the houses are more distinct in styles and deeply affected by the regional factors.

1.1. Oman vernacular houses

Oman is divided into four main geographical regions which are the coastal, interior desert/oasis, mountainous and the monsoon areas of the south. These regions have different socio-culture and micro-climates. The coastal region is characterized by the hot-humid climate and is mainly populated by farmers and fishermen. The layouts of the houses are more spread out to respond to the climate conditions; i.e. oriented to catch breeze to assist evaporative cooling process (Fig 1). The houses often have a summer and winter (flat roofed) compartments where the summer houses are built in form of light weight construction known as *khaymah* (pitched roof).



Fig. 1. A Traditional Courtyard House of the Coastal Area Made from Mudbricks (Barka, Al-Batinah)



Fig. 2. Mud Brick House at the Interior Desert/Oasis Area

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات