

لونا ر د



العمارة "الإسلامية"
بين المحتوى الحضاري العام وبين التأويل النصي الديني

Scientific Committee – Lonaard Magazine

Last updated 26 June 2011

Ahmed Mohaisen – Islamic University

Alaeddin ElJmassi – Islamic University

Ali Alraouf - Qatar University

Attilio Petruccioli - Polytechnic University of Bari, Italy

Azza Eleish - Dar Al Hekma College - Jeddah/KSA

Eckhart Ribbeck - Stuttgart University

Eslam Al-Ghunaimy – Al Khobar University

Farid Al-Qeeq - Islamic University - Gaza

Galal Abada – Ein Shams University - Egypt

Hani Al Qahtani - King Faisal University - SA

Hasim Altan – Sheffield University

Hassan Radoine – University of Sharjah

Jihad Awad - Ajman University - UAE

Khaled Al Sallal – UAE University

Khalfallah Boudjemaa - Mseila University - Algeria

Mehdi Sabet - American University of Sharjah - UAE

Mirna Nassrah - Lathiqiyah University - Syria

Mona Helmy – Dar Al Hikma College – Jeddah SA

Nabyl Chenaf- American University in Dubai

Nada Al Nafae - King Abdel Aziz University

Omar Asfour – Islamic University

Rabah Saoud - Ajman University

Rania Khalil – Qatar University

Samer Abu Ghazalah – Jordan University

Shatha Abu Khafajah - Hashemite University - Jordan

Yasser Al Rajjal - German-Jordanian University – Jordan

Yasser Mahgoub – Qatar University

Submission and relevant guidelines

Authors, writers and scholars are advised to read the following guidelines carefully before sending their contributions as failing to adhere to these strict rules may result in their work declined and not published. From previous experience in editing immature submitted text, this proved to be time consuming and endlessly laborious. While we open the door wide for all scholars to contribute without prejudice, we reserve the right to decline any text that appears to be replete with elementary mistakes before even wasting the time of our review committee, as their job is not to edit language or typing mistakes which is the sole responsibility of the author. Therefore, we ask everyone to check their work carefully and kindly abide by the following rules:

The length of text, format and submission

- The length of abstracts should not exceed 400 words, articles no longer than 2000 words and full paper submission should not in any way exceed 8000 words excluding footnotes or references.

- Papers and articles could be written in English or Arabic, either way the author should provide synopsis of about 300 words in the other language that of the article or paper.

- Abstracts, papers and articles should contain author(s) name(s), academic rank or title, institution or place of work.

- Abstracts and full paper submissions should be sent in MS Word format by e-mail to Magazine@lonaard.com

Paper and article structure and writing code

- The use of references should adhere to proper academic practice, the text should be supported with clear photographs where necessary and with clearly stated references. Illustrations, maps & tables, should be inserted within the text and dutifully explained.

- For Arabic text please adhere to these guidelines: "Arabic writing code"

- For English text please adhere to the 'code "English text format"

- For use of references please check this file "Bibliography"

- We only accept original authentic work of the writer/co-writers. Any previously published material in part or whole will be rejected and any writer prove to send such work or practice plagiarism of any sort will be banned from future publication with Lonaard Magazine.

To obtain the relevant documents mentioned above regarding writing code and reference citation please visit our website

(<http://www.lonaard.com/magazine.html>).

For further inquiries please contact us at info@lonaard.com

Lonaard Magazine is a specialised peer-reviewed art and architectural periodical founded in London by Dr Waleed Al Sayed and Dr Mashary Al Naim since 2008.

Editor

Waleed Al Sayed

Senior Advisory Board

Ashraf Salama - Qatar University
Howayda Al Harithy - American University - Beirut
Mashary Al-Naim - Dammam University - Saudi Arabia
Mohammed Al-Asad - Chairman/Centre for the Study of the Built Environment - Amman
Nezar Al Sayyad - University of Berkeley- California USA
Sabah Mushattat - Wolverhampton University - England/UK
Saleh Al Hathloul - King Saud University
Wael Samhouri - Damascus University - Syria
Yasser Elsheshtawy - UAE University

All rights reserved, except for brief quotations in a review. Articles and papers, or any part thereof, may not be reproduced, stored in or introduced into a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the editor.

The views and opinions in articles and papers do not necessarily represent those of Lonaard Magazine (the editor, the senior advisory board or the international review committee). Ideas and opinions expressed in published papers or articles are those of their writer(s).

Catalogued in the British Library: ISSN:
2045 – 8150

Editorial & Design

Sarah Fawzi
Suhad Brown

Amir Duhair
Mohammed Haddad

Price per issue 30 US dollars or equivalent, and annual subscription is 150 US dollars or equivalent. For subscriptions contact us at (subscribe@lonaard.com).

(cover photo: Al Fana Plaza/Marrakesh – courtesy of W. Al Sayed)

Sponsored by:

Abdel Rahman Al Naim Architects & Consultants
 Hamed Ben Hamri Architects & Consultants
 Concept Design – Arch. Nasser Fahad Al Tamimi
 Afniyah Architects & Consultants



Contents

139 Editorial

138 This Issue:

The Paradigm of 'Islamic' Architecture: The 'cultural broad context' versus 'religious text/context'

Reviews

05 Book Reviews

1. **Consuming Cities** – Palgrave/Macmillan 2004
2. **Changing Cities** – Palgrave/Macmillan 2005
3. **Transforming Damascus** – Tauris Academic Studies 2008
4. **The Endless City** – Phaidon 2007
5. **Damascus: Hidden Treasures of the Old City** – Thames & Hudson 2000
6. **Islamic Art** – Prestel
7. **Decorative Arts from the Middle Ages to Renaissance** – TASCHEN 2011

19 Review –

Under the Eaves of Architecture: The Aga Khan Builder and Patron The Historic Cities Programme – PRESTEL 2007

137

Critical reviews: Arab Architects Critics Association (AACA) – Towards a Responsive Architectural and Urban Education for Understanding of and Intervening in Islamic Societies – Ashraf Salama
Arab Architectural Education and the Absent Architect from the Cultural and Literature Venues - Mashary Al Naim Waleed Al Sayed (37)

Papers

(in English)

129 **Islamic Architecture: Towards a Definition** Saleh Al Hathloul

120 **Environmental Adaptive Capacities of Vernacular Architecture: Two Case Studies of Algerian Palm Tree Settlements**
Nadia Daoudi et al

(in Arabic)

95 **Toward a Theory to Re-Understand Arabic 'Islamic' Architecture/City: 'Ilm' Al Omran versus 'Fiqh' Al Omran** – Waleed Al Sayed

82 **Urban 'Mannerisms': Arabic Islamic City within the Socio-Architectural Context** – Mashary Al Naim

65 **Islam and Arabism: the Traps of Identity/Globalism – the Transformations and Challenges of the Gulf City** – Ali A. Alraof

54 **The Impact of Privacy Concepts Upon the Design and Planning of City: Case Study of the Old City of Gaza** – Mohammed Kahlot

41 **The Metaphysical Concepts Embedded in Islamic Patterns and Their Expressions in Contemporary Architecture: Towards New Theories to Revive Islamic Architecture** – Ahed Helles



Islamic Architecture: Towards a Definition

Saleh Al Hathloul¹

1. Associate Professor of Architecture, King Saud University, KSA.

Sent for evaluation on (16 May 2011), and was approved on (12 June 2011)

Abstract

Islamic Architecture is usually seen and defined as physical character or elements, i.e. *mashrabiyyah*, dome, etc. This leads to the conclusion that these forms do not lend themselves to change. If we are to understand and define Islamic Architecture, we should look at it within its socio-cultural and religious tradition rather than dealing only with its physical manifestations. The contention here is that tradition provides the underlying structure or the system of arrangement within which we can understand and define architecture and urban form. If we can understand and define urban forms within their system of arrangement and not within their separate elements or components, then these components can be adapted or can even change as long as their system of relationships or underlying structure remains constant. These ideas are elaborated and explained through examples from traditional Islamic Architecture as well as contemporary architectural works.

1. Introduction

Architecture is often looked at as a manifestation of culture. This implies that architecture is a logical by-product of a pre-existing culture. Such has been the case of 'Islamic Architecture'. Many have written about Islamic Architecture and various approaches have been followed. One common approach follows the implicit assumption that as long as it is an architecture produced within a Muslim culture during the past fourteen hundred years then it is 'Islamic'. Thus, without having to deal with what makes it Islamic, they usually treat the subject either geographically or by periods. (Khalili, 2005; Hattstien, 2004; Hillenbrand, 1999, 1994; Petersen, 1996; Jairazbhoy, 1992).

Few are those who have tried to define what is meant by the term 'Islamic', or what makes architecture that is produced throughout the Muslim world distinct from other architecture of the world.

Writing on Islamic Architecture and Urbanism, Haider questions what is it in the phenomena of Islam that has lent this 'distinctive quality' to its material civilization, and why are the buildings recognizable as 'Islamic', though there is no formal canon or a universal style? To find an answer he

suggests looking at the Quranic text and the *Hadith* literature to seek an understanding of those philosophical and normative underpinnings of architecture which lend it its Islamicity. (Haider, 2003: 634-35) Khan proposes that we have to define what is Islamic that may affect architecture itself: is it the details, the orientation, the forms, the spaces and relationships, or the environment that may be called Islamic? He believes that teaching of the Quran and Shariah ultimately shaped the Islamic environment. Thus, he poses the question: What are the most significant principles of Islam and their interpretations which determine the character of architecture? (Khan, 1980: 32).

Al-jawahirah points out to the need for a comprehensive theory to explain and interpret Islamic Architecture, and to develop a general framework or an approach through which we can understand its origin and its process of formation and development. He suggests that in order to understand Islamic Architecture as a human and cultural phenomenon, we need to look at it within its geographic, economic and social context. (Al-Jawahirah, 2006: 47-48).

Hoag points out to the remarkable diversity in the architecture of Islam, yet, he states that "we detect

the emergence of certain unifying principles...` He then suggests that the survival in form and in meaning of very ancient elements may provide a fruitful method of understanding Islamic Architecture.(Hoag,1977:10).

Dealing with the same issue in more depth, Ernest Grube addressed the question of Islamic architecture: does such an architecture exist and can it be recognized as different from other architectures created outside of the Islamic World? If so, he then asks, what are those qualities that set Islamic architecture apart from non-Islamic architecture? To define some of those qualities, he looks at what he terms as `Elements` in Islamic architecture. These elements, he says, " appear to be `typical` and may be explained as expressions of a culture created by Islam, differing in fundamental attitudes from other, non-Islamic architectural creations." As a consequence of this assumption, he suggests that "wherever these elements are weak or absent, something has happened in Islamic culture in the particular region where such `monuments` were produced to indicate a general weakening of the `Islamicness` of the specific architecture in question." (Grube,1978: 10)

To pursue his theses, Grube looks at three organizational factors in the context of Islamic architecture: concentration on the interior, form and functions, and interior space.

Focus on the enclosed space, on the inside as opposed to the outside, is one of the most striking features of Islamic architecture. He introduces the house as the most common expression of this attitude and emphasizes the fact that even for major monuments, there is a lack of exterior indications of the shape, size, function or meaning of a building. Thus, it is a `hidden architecture`. Grube draws the conclusion that very few building types in the Muslim world articulate the interior space on their exteriors; and that these buildings are either totally functional or true exceptions to the rule. Of these exceptions is the tomb tower, or the mausoleum. Within these exceptions, he asserts, "the architectural form as such remains, in cultural terms, a foreign element within Islamic architecture." That is to say elements such as the tower or the dome, in their abstract form, were not originally Islamic and therefore cannot be explained as expressions of a culture created by Islam. "Unabsorbed by Islamic art, these forms were consequently not an expression of Islamic

culture but of the culture from which they were originally derived" (Grube, 1978: 12).

Relative to the concept of hidden architecture is the total absence of a specific architectural form for a specific function. He asserts that forms in Islamic Architecture can be adapted for a variety of purposes, therefore,

"A Muslim building serving a specific function can assume a variety of forms." The Four Iwan courtyard structure is introduced as the paramount example of this phenomenon. Grube then comes to the conclusion that "Islamic architecture is given to hiding its principle features behind an unrevealing exterior; it is an architecture that does not change its form easily, if at all, according to functional demands but rather tends to adapt functions to preconceived forms, which are basically the contained internal spaces." Thus, he suggests that it is the analysis of these internal spaces which will provide us with additional information concerning the specific quality of this architecture. (Grube, 1978: 12-13).

Grube, therefore, concludes that interior space, that is "enclosed space defined by walls, arcades, and vaults, is the most important element of Islamic Architecture." His brief analysis of interior spaces in Islamic Architecture, as opposed to the architecture of the non-Muslim world, emphasizes several organizational or design features peculiar to the architecture of the Muslim World. These are the non-directional plan; the tendency to an unlimited repetition of individual units such as bays, arches, columns, passages, courtyards, doorways, cupolas, etc; the continuous merging of space without any specific center or focus; and multitude of decorative treatments of surfaces.(Grube,1978: 13-14).

In an attempt towards a definition, Grube points out some of the characteristics peculiar to Islamic architecture. These were derived in a descriptive manner on a purely physical level while no interpretation of its meaning was introduced.

Several problems undermine this approach. The first is that the qualities defined here are not peculiar to traditional Islamic architecture. They are not specific for any tradition. One can argue that they represent a set of common cross-cultural qualities which can be found in other architectural traditions as well.

Secondly is the way the initial question was formulated. This is to define the qualities inherent in Islamic Architecture by comparing it with other non-Islamic architectural creations. Rather than considering architecture within its context, according to its own background, and attempting to understand its merits through the interpretation of its own tradition, this approach looks at elements that might also be shared with other architectural traditions but can still be interpreted differently within the context of Islamic culture.

The third and most pertinent problem is expressed in the term `typical elements` which are being looked at in order to define the qualities of Islamic architecture. It is this initial hypothesis which led to investigating and considering several elements (the dome, vault, tower, courtyard, etc.) and to seek a definition of Islamic Architecture through these elements. It is also this hypothesis that led to the suggestion that whenever these elements are weak or absent, something has happened in Islamic culture to indicate a general weakening of the `Islamicness`, of the specific architecture in question.

Towards a New Definition:

In order to reach a definition and an understanding of Islamic Architecture, the suggestion here is to look at it as a `whole` and to attempt to provide an interpretation of the architectural forms through their background. The issues addressed here will not deal with elements but will look at forms themselves as a part of a wider body of the Islamic Architectural tradition. It will look at these forms as the physical environment in which the socio-cultural and religious Muslim institution developed and grew.

Thus, the emphasis will be on why the physical forms of Islamic Architecture took their existing and distinctive shape, rather than looking at the shape itself to provide an interpretation. The next step would be to look at their process of formation and how different elements were brought about to give us this distinctive architectural form that is looked upon as peculiar to the Muslim tradition.

Elsewhere I have shown how conventions and legal decisions regarding form and use, derived from the *Shari`ah*, have mediated between specific problems of use and the urban form as it has gradually developed in the Arab-Muslim city. I have argued that there have always been themes and principles, sometimes explicit, sometimes implicit, that have shaped the architectural form of

the city. In order to understand, define and make use of these forms as a resource, we must first define these themes and principles and, secondly, understand how they worked within their context to shape the present physical form (Al-Hathloul, 2010, 1995, 1978).

Islamic law is a jurists` law, created and further developed by the *fuqaha'* who were private specialists. Its formation was shaped more by religious and ethical technique. Because it is a jurist law, Islamic legal science is amply documented, where as the reality of actual cases is far less. However, the numerous hypothetical cases composing this science should not be looked at as abstract thoughts that are very remote from reality. In most instances, these hypothetical cases represent the actual realities of life within the city. The jurists opinions on hypothetical cases (Sahnun, Ibn Qudamah) always corresponded to the cases decided by courts and to the conception and actual practice of the residents. (Al-Hathloul, 1995, Ibn Al-Rami).

Legal opinions show a constant concern on the part of the jurists and judges towards the inhabitants` needs in the Arab-Muslim city. The cases discussed in jurisprudence books implied basic themes which were deduced from Islamic religious principles. It is these themes that produced the striking similarities and distinctive architectural character all over the Arab-Muslim world. Islamic law constituted a common base which regulated the physical form and the spatial organization in the Arab-Muslim world in spite of the climatic, regional, or sectarian variations.

This common base, the implicit themes out of which the rules of conduct evolved, can be briefly summarized. For the functional appropriation of city territory, the themes implied were avoiding the causing of harm and damage, having regard for the inhabitants` needs as well as for those of businesses, and grouping together similar types of uses. Regarding thoroughfares and lanes, there was the concern, first, for public interest; that is, protecting the right of way and insuring that any action or activity would not narrow the way, hinder the circulation, or cause harm or damage to the public. As long as these criteria were satisfied, private interest was then considered; projections and chambers were allowed to be built above streets and lanes. (Al-Hathloul 2010, 1995).

The privacy of the family was strongly emphasized by the law. This was very well reflected in the

cases regarding building heights, openings, and the placement of doors. Although there was no restriction on height per se, it was the damage caused by raising up a building and therefore intruding onto the privacy of others which was not allowed. This in turn worked as a measure and was applied to prevent openings in high chambers that would look onto other houses as well as to prevent the placement of doors in the street in front of each other. (Al-Hathloul, 1995, ch.3).

Within the rules of conduct applied in Muslim society, the emphasis was on social behaviour rather than on prescriptive architectural form. An example which shows the flexibility of these conventions and their emphasis on matters of conduct rather than on architectural form is the case of the house types in Medina. Three house types developed there, each with its own distinctive form. The house type in Medina was originally the courtyard house (Fig.1). In later times, two other types emerged: the *qa'ah* house and the *mashrabiyyah* house. (Fig.2,3).

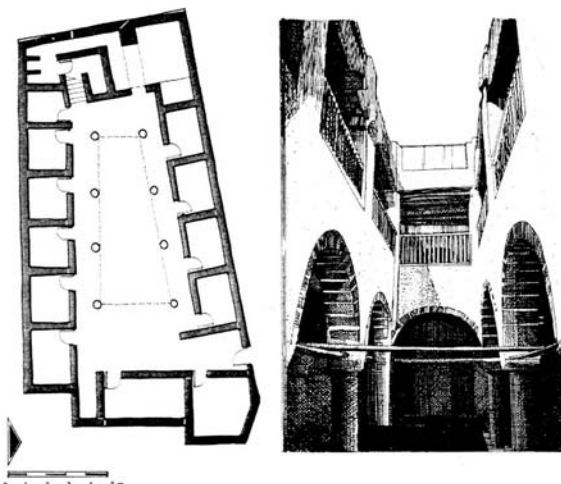


Figure 1: Medina - a courtyard house.
View from the courtyard, and ground floor plan.

The *qa'a* house contains a covered, small courtyard, called a *qa'a*, at its centre. The *qa'a*, used as the main reception room, is usually divided into three parts. The central part rises to the roof, where there is a removable cover; the two side parts have a lower roof with one or more floors above them. The *mashrabiyyah* house, in its simplest form, is a typical row house with windows to the street covered with *mashrabiyyah* and, on the opposite side, high openings that allow for ventilation and daylight but do not give a view on to other houses. This type is usually four to five storeys, while the courtyard house rarely exceeds

two floors. The *qa'a* type is generally two or three floors.

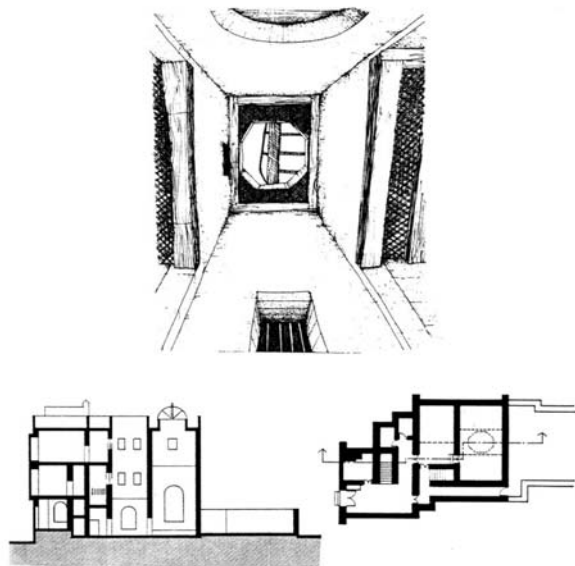


Figure 2: Medina - a *qa'ah* house.
(Upper) view of the *jala'* looking up from the floor of the *qa'ah*. (This view is from another house in Medina).
(Lower right) ground floor plan.
(Lower left) section.

Source: (plan and section) M. Saleh, *The Development of Energy Efficient Building Systems*, a doctoral dissertation, University of Michigan, 1980, p.146.

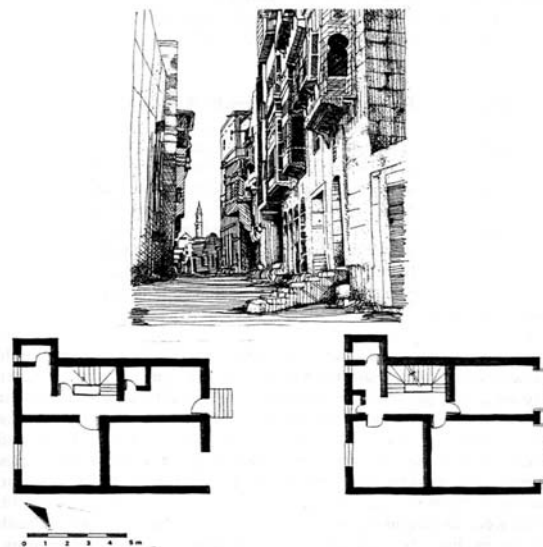


Figure 3: Medina - a *mashrabiyyah* house.
(Upper) view of *Al-sahah Street* with the *mashrabiyyah* house on the right side in the foreground.
(Lower right) third floor plan, second and fourth floor differ slightly.
(Lower left) ground floor plan.

The sequence in which the three house types emerged in Medina is believed to be: first, the courtyard type; second, the *qa'a*; and last, the *mashrabiyyah* type. The two latter types provided a substitute for the courtyard type. The changes occurred when the prevailing conditions either did not permit the preceding type or that type was no longer feasible owing to high land prices that required a more efficient building. The eighteenth-century development of the *mashrabiyyah* house along the *saha* (the main street leading from the *Shami* gate to the Mosque of the Prophet), for example, occurred when the economic value of the area rose because of the proximity of the mosque.

The three types all subscribed to the rules of conduct and seemingly satisfied accepted social conventions. However, when one looks at these three types on the basis of conventions of form, they differ markedly in their shape, height and elements. This shows how legal theory and legal decisions regarding form and use mediated between specific problems of use and urban form as it gradually developed. Since the emphasis was on the conventions of use and more specifically on prescribing what is not to be done, any architectural form suitable to serve these uses was accepted.

In the case of the Medinese house, therefore, the elements or the components which give us the final form have changed substantially but their system of relationships continued to be the same. This should lead us to the following conclusion no better stated than by Jacques Berque: "If we seek an identity characteristic of the Islamic Model, this identity will not be found in one or another concrete manifestation.

If we examine such models through monographic studies, we will find that one or another of their elements could be absent or could change or even develop. Identity does not consist of things, it consists of their system of arrangement.. (If) identity resides in (the) systematic structure and not in its separate components, then these can change as long as their relationship to one another remains identical. That is what Islamic thought expresses in Arabic as *thawabit wa mutahawilat* when differentiating between invariabilities and variables. As long as invariables are maintained with the original system, the identity exists". (Berque, 1980: 54).

As long as the system of relationships or the deep structure is preserved and responded to then architectural elements i.e. dome, *mashrabiyyah*,

or for that matter, courtyard could change or even disappear. Nonetheless, we still have what we can look at and perceive as an Islamic Architecture. That is what produced unity within the diverse cultures all over the Muslim World. By following this approach one can easily find answers to questions raised by several scholars such as: how can we make a building more Islamic? How a building that is built of concrete and aluminium can be Islamic? And whether new technologies and new materials can or cannot be considered Islamic? (Tashkandi, 1992: 7-8).

Contemporary Architecture:

During the twentieth century the architectural tradition in the Muslim world has been challenged. New materials, new techniques and new systems have been introduced. With the rush for development building programs have been launched some of which neither recognized the natural and climatic conditions of the area, nor responded to the socio-cultural background of the people. It is only in the past few decades that attempts by local architects to re-establish continuity with the past have started to emerge. We will illustrate these attempts or directions through the following examples from the city of Riyadh, Saudi Arabia:

The modernization process of the past decades has continued to challenge architectural tradition in Saudi Arabia with the introduction of new materials, techniques and systems. With the economic boom of the 1970s and early 1980s, many building programmers were launched, some of which neither took account of the natural and climatic conditions of the area nor responded to the sociocultural traditions of the people. Only in the 1980s did attempts by some Saudi architects to re-establish continuity with the past begin to emerge. These architects subscribed to the underlying structure of values, norms and conventions that govern social behaviour, and as long as this system is understood and provided for in design, the identity exists. In their quest for continuity with local tradition, they followed two different approaches. Followers of one approach strongly believe in the need for a continuity of a style; adherents of the other subscribe to the idea that, as long as the main themes and principles are understood and provided for in the design, then the final architectural forms will satisfy.

Qasr Al-Hokm District; is an urban design scheme for the Riyadh city centre conceived in the

early 1980s (Fig.4.1). In this study, the Beeah Group prepared a package consisting of building codes, development regulations, a land-use plan and an illustrative design scheme to show how the regulations could be applied and their possible outcome. (Shuaibi & Al-Hathloul, 1983).



Figure 4.1: Aerial view of the proposed development, showing pedestrian walkways radically linking the shopping, offices, and housing sectors.

The project dealt with many issues including land tenure, land-use control and design guidelines, for which the designers looked at legal precedents in the Muslim world. Locating precedent for different land uses proved to be more complicated because the project included commercial, business, residential, cultural and religious activities. The cultural and religious activities were already fixed in the old city. For the commercial activities and the organization of markets, the designers evoked the main principles established by the jurists and stated in hisbah manuals for organizing markets within the traditional Muslim city. In developing the urban design guidelines, the designers sought to understand the essence of the shari'ah law and how it was reflected in the built environment. Traditional regulations emanated from behavioral rules of conduct; thus, they were prospective in nature, specifying actions or behaviors that were not allowed but leaving the door open for creativity. Present day regulations are prescriptive in nature, specifying what is allowed and how it is to be done, thus narrowing design options and limiting creativity.

Building codes in Riyadh mandate certain building setbacks and allow second-floor openings that over-look neighboring houses. People have reacted to the latter in two ways. Either they go to court and sue their neighbours, or they protect themselves by extending their fences with plastic

corrugated sheets. To avoid this contradiction between existing regulations and clearly strong social values, the Beeah Group did not allow openings that overlook adjacent or lower dwelling units. Telling designers what is not allowed, rather than what is allowed, gives them the flexibility to develop different and perhaps innovative solutions. In one scheme, this issue was solved by opening windows on to terraces and courtyards with high parapets, and by using high windows that admit daylight but avoid views on to adjacent dwellings or using skylights, in essence, a modified form of the *qa'a* (Fig.4-2,4.3,4.4).

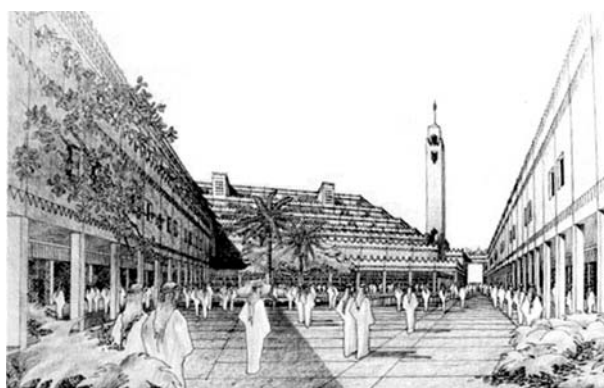


Figure 4.2: View of sector center, showing local mosque and pedestrian arcades around the plaza, and terraces where windows open to avoid overlooking other dwellings



Figure 4.3 : View of a pedestrian walkway passing through a reconstructed old gate to link the sector's center to the main mosque.



Figure 4.4: Birds eye view.

The design guidelines also consider identity & architectural character. People usually become more conscious of a tradition when they begin to lose it. The Beeah Group looked at the basic principles and values of the past to ascertain whether they were still viable and, if so, to revive and develop them, such as the principle of privacy. It was also felt that the project should maintain the indigenous architectural style of the region in order to preserve the identity of the old city of Riyadh. Criteria were developed to make this decision sufficiently flexible and to ensure that traditional themes would be used in a contemporary way. This study provided a base from which several projects have been launched in the district, such as al-*Mu'aisyqlyyyah* development west of the mosque in the mid-1980's, the great Mosque of Riyadh and Old city Centre Redevelopment including the Justice Palace in late 1980's and Riyadh development company project on the western side of the district (Fig.5.1,5.2,5.3) .



Figure 5.1: Aerial view of the Great Mosque of Riyadh, the Justice Palace and the three administrative buildings; on outgrowth of the Qasr Al-Hukum Study.



Figure 5.2: Great Mosque of Riyadh, designed by Rasem Badran, subscribes to the indigenous architectural style of the Najd region.



Figure 5.3: Administrative buildings, design development by Beeah group, showing traditional facade character.

Municipal Houses Prototype: In 1985, in order to produce distinctive prototypical residential units, the Riyadh Municipality commissioned several architectural firms to design sixteen prototypical units on lots of 20x25 meters and located along streets 15 to 25 metres wide. Aware of the sociocultural traditions and environmental conditions of Riyadh, the designers, El-Naim, started with a review of existing codes and regulations, such as the allowance for window openings on all sides, which overlook outside spaces in neighbouring dwellings. This, the designers concluded, contradicted existing values, norms and social conventions, as well as the climatic and environmental conditions of the hot, arid region, and they went back to study traditional environments. The traditional house type in Riyadh was the courtyard house, but to design around a courtyard and meet the setback requirements would waste space and not provide privacy. Thus the designers established three principles as a basis for rewriting the regulations: efficient and full use of all spaces; protection of inhabitants' privacy; and a more responsive microclimate within each dwelling unit. This led them to abolish the

mandatory setback requirements, to prohibit windows that overlook interior or exterior spaces in neighbouring houses and to use the courtyard as a design feature (fig.6.1).



Figure 6.1: The Municipal houses prototype, site plan.

In the final design, care was taken to reduce the surfaces directly exposed to the sun by abolishing setbacks and creating a system of courtyards that created an appropriate climate within each dwelling. The privacy of the inhabitants was achieved by directing all windows and openings towards courtyards, terraces and roofs with parapets. Windows were not allowed to be opened in the outside wall (Fig.6.2).

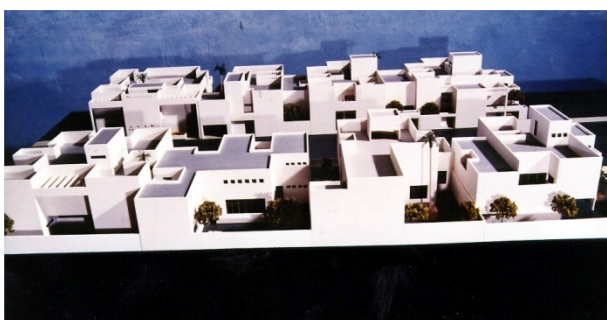


Figure 6.2: The Municipal houses prototype, bird eye view.

The designers of the municipal houses did not opt for a specific architectural character or style. They believed that as long as socio-cultural values and environmental conditions were understood and provided for in the design, then the resulting forms would preserve identity and produce a feeling of continuity (Fig.6.3).

The previously illustrated works both subscribe to the same principles. These are the attempts to re-establish continuity with the past, the socio cultural values, and the recognition of climatic natural conditions. However, in their quest for a definition they have followed two different approaches. The

Beeah architects strongly believe in the need for a continuity of a style which is in this case that of the traditional architecture of Najd. While El-Naim Architects subscribe to the idea that as long as the main themes and principles are understood and provided for in the design, then the final outcome of architectural forms will produce the feeling of continuity. To use Berque's words: as long as invariables (the system of arrangements) are maintained with the original system, the identity exists.

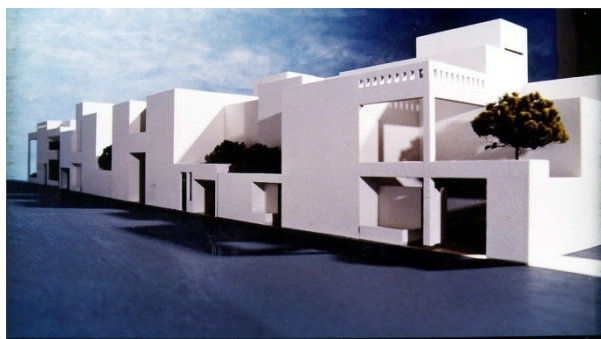


Figure 6.3: The Municipal houses prototype, street facade.

REFERENCES:

- Abu-Lughod, J `` Preserving the Heritage of Islamic Cities,`` in the Aga Khan Award for Architecture, Proceedings of seminar one in the series Architectural Transformation, Towards an Architecture in the Spirit of Islam, in the Islamic world, the AgaKhan Awards, 2nd edition,1980 (pp.61-75).
- Al-Abed, Badi y. ``Aspects of Arabic Islamic Architectural Discourse``,ph.D. Thesis, Delft University of Technology, 1992.
- هاني محمد علي الجواهره ، "قراءة نقدية للعمارة الاسلاميه في سياقات جغرافية واجتماعية جديده"، عالم 2006، ابريل-يونيو 2006 (ص ص 47-85، المجلد 4الفكر ، العدد
- صالح الهذلول ، المدينه العربيه الاسلاميه.أثر التشريع في تكوين البيئه العمرانيه ، الطبعة الثانيه ، الرياض ، الجمعيه السعوديه لعلوم العمران ، سلسلة علوم العمران (4) 2010،
- Al-Hathloul, S. The Arab-Muslim City, Tradition continuity and change in the physical Environment, Riyadh, Dar al-Sahn,1995.
- Al-Al-Hathloul,Saleh A.,``Design Principles for Housing Development in Arab-Muslim Cities,``in F.Dakhil,O.Ural and M.Tewfik (eds), Housing Problem in Developing Countries, Dhahran, UPM and John Wiley&Sons, 1978,V.2,(pp.509-523).

- Berque, J. "Observations on New Models" in the Age Khan Award for Architecture, proceedings of, Towards an Architecture in the Spirit of Islam, in the series Architectural Transformation in the Islamic World,

The Aga Khan Awards, 2nd edition, 1980: 5255).

-Grube, E. "What is Islamic Architecture?" in G. Michell, (ed), Architecture of the Islamic World, Its History and Social Meaning, New York, William Morrow and Co, inc, 1978(pp.10-14) .

- Haider, S.Gulzar, "Islamic Architecture and Urbanism", in The Different Aspects of Islamic culture, v.5, Ekmeleddin Ihsanoglu,(ed) UNESCO Publishing, 2003.(pp.633-694).

-Hattstein, Warkus &Pefer Delius (eds), Islam: Art& Architecture, Kone- mann,UK Ltd, 2004.

-Hillenbrand, Robert. Islamic Art and Architecture(world of Art series)Thames& Hudson Ltd, 1999.

-Hillenbrand, Robert, Islamic Architecture: Form, Function and Meaning, Edinburgh & New York, 1994.

-Hoag, John b., Islamic Architecture, New York, Harry N.Abrams Incorporated, 1977.

- Ibn al-Rami, (d. 734/1334), Kitab al-I'lan bi-Ahkam al-Bunyan, manuscript of Rabat, Dar al-Khizanah al-'Ammah, no. A8*2834.

-Ibn Qudamah, Al-Mughni, Riyadh, Maktabat Arriyadh al-Hadithah, 1981.

-Khalili, Naser D., The Timeline History of Islamic Art and Architecture, World Pres Ltd, 2005.

-Khan, F.R., "The Islamic Environment: Can the Future Learn From the past", in the Aga Khan Award for Architecture, Towards in Architecture in the Spirit of Islam, Proceedings of Seminar One in the series Architectural Transformation in the Islamic World, The Age Khan Awards, 2nd edition, 1980(pp.32-38).

- Petersen, Andrew, Dictionary of Islamic Architectural Terms, Routledge, 1996.

- Sahnun, (d. 240/854), al-Mudawwanah, Cairo, 1905.

-Shuaibi, A. and Al-Hathloul, S., "Thejustice Place District, Riyadh", in Continuity and Change: Design Strategies for Large Scale Urban Development, Cambridge: the Aga Khan Program for Islamic Architecture, 1983, pp.37-48.

- Tashkandi, Farahat K. 1992 " فرحات خورشيد طاشكندی " العمارة الاسلاميه: أغلوطة لغوية أم فلسفة عمارية", مجتمع وعمران: مجلة الدراسات الحضريه، عدد خاص 14/13، ديسمبر 1992 (ص:18-24).