

# ARCHITECTURE AND BEHAVIOUR : THE BUILT ENVIRONMENT OF MUSLIMS

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## **The Multiple Links between Architecture and Behaviour**

The heart of the architectural and urban design enterprise is the organization of space. The scale, volumes, sequencing of spaces, and sense of discovery that accompany the experiential nature of moving through the built environment are where we have to start our search for the links between architecture (interpreted here to include the organization of urban form) and human behaviour.

The scale and texture of urban form are essential ingredients in the creation of a sense of place. The degree to which the place in question is inviting, or overwhelming; the manner in which it encourages meditation or introspection, or, conversely, in which it is intriguing and exciting--all of these are dimensions that affect the behaviour of the individual, and, by inviting interaction with other individuals, may become an agent of social cohesion, or, of reaffirmed individualism. Great spaces create great experiences. From the Taj Mahal to the Registan square (Figure 1), from the bazaars of Isfahan to the exquisite mysteries of the Alhambra (Figure 2 a,b,c) each of these spatial compositions creates unique feelings of awe, belonging, or exploration. Each creates a different sense of place and elicits different reactions from countless visitors and native dwellers.

These reactions are distinct from the functional layout of a building or group of buildings which may well promote functional interaction between individuals who work in the building. Rarely have these commercial enterprises, lacking any claim to architectural greatness, succeeded in reaching the inner self of the individual, much less fostering a sense of common social belonging, as do the spaces we deem to have architectural merit. Why? The theme of this paper is that it devolves from the architectural talent that not only organizes spaces but successfully creates a mood and establishes a space of freedom in which this mood can manifest itself.

At the lowest and most accessible level, a street for pedestrians encourages human interaction. A broken layout, with sudden expansions of the street, with mixed use

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Fig. 1 The splendour of the Registan Square speaks to us through the centuries. It is a rare case of formal geometric layout in urban and architectural compositions in the Muslim world.

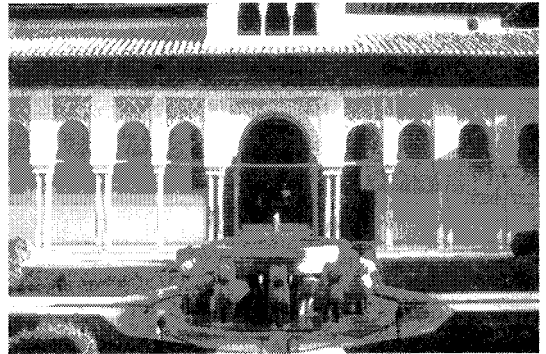


Fig. 2 (a,b,c) The courts of the Alhambra in Spain (left) create a sense of discovery. They are beautifully proportioned to be inviting to the visitor and restful to the resident. The interplay of water and plants adds to the beauty of the place (above). The decorations on the walls are ornate and engaging in a subtle fashion (p. 195, top).

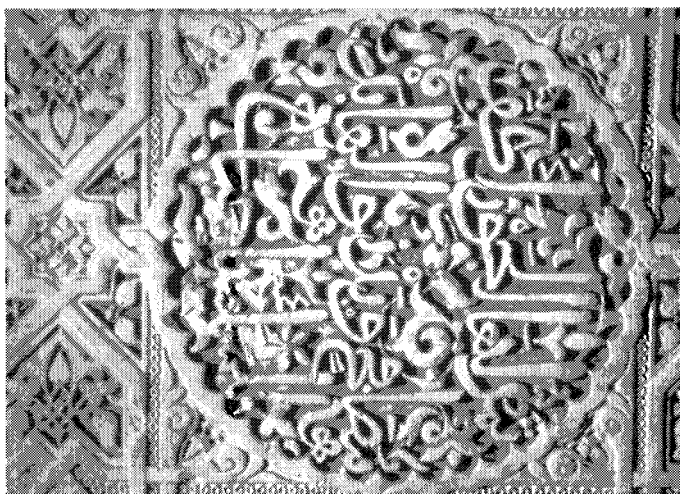


Fig. 3 The courtyard, a haven from the bustle of the street, discovered by access through a broken entrance, and enhanced by water and vegetation is a major feature of the architectural tradition of Muslim societies.

and variety of buildings by age and type, though remaining within an overall human scale, creates an inviting framework for social interaction. Such are the common characteristics of many of the streetscapes of most of the older cities of the world, and then remain common to many of the places that we term as having "charm". The interplay of water and vegetation with such an urban townscape completes the quintessential image of the inviting built environment, humane and socially as well as aesthetically appealing.

At another level, the skilful interplay of spaces can do the opposite of promoting social interaction: promoting interiorisation and contemplation. This is where the discovery of the links with others is replaced by the search for the serenity of the inner self. The necessary transitions from the public to the private space are created on the classic broken entrances and interior courtyards of many traditional Muslim houses of the Mediterranean and Central Asian areas. The broken entrance psychologically heightens the sense of discovery of the quiet courtyard, after the bustle of the public street, and helps to set the mood for the individual appreciation of the space and its water and vegetation (Figure 3). Great religious architecture, especially small scale buildings such as medieval cloisters have succeeded in encouraging meditation and interiorisation.

To this more structural aspect we can add consideration of the mediation of ornament. Human beings decorate and furnish what they use and articulate their living spaces in terms of their own culture. The determinants of behaviour are encoded in the cultural framework with which an individual identifies, and are reinforced by the social context in which an individual lives. Thus, the ornament and the furnishings are themselves important complements to the architectural statement that reinforce the pattern of behaviour of the individual.

Clearly, however, these reinforcements are not just one way. Individual behaviour, collectivized into social behaviour, puts new demands on architectural expression and forces architects to respond to the changing needs of society, notwithstanding the willful expression of an individual client, or better still, their own individual artistic drive. The links between architecture and behaviour run deeper and are more complex than the superficial view of a building as functional space, or, of architecture as the willful creation of a special individual of artistic sensibility.

### **The Muslim Cultural space**

What of the Muslim world in this discussion? The Muslim societies of today are undergoing profound transformations dealing with the onslaught of the forces of globalisation and what many in these societies see as the encroachment of a hegemonic culture on their identity. Muslim identity is a subtle thing, despite the assertions of the fundamentalists. It runs as a thread of unity through a rich diversity of cultural expression. Because that particular thread addresses most of all the behaviour of the

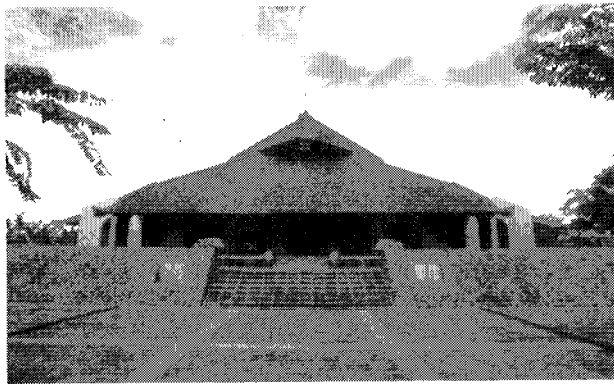
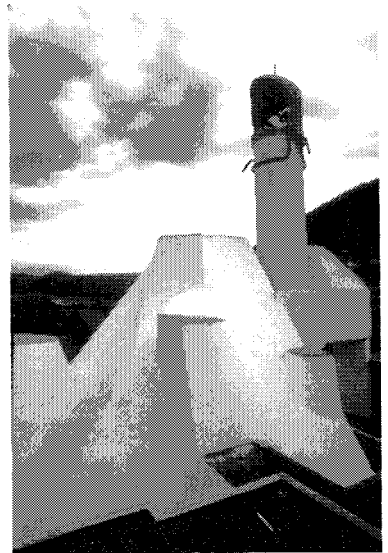
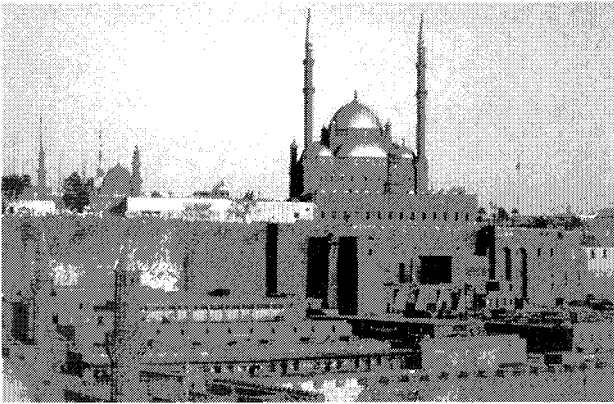


Fig. 4 (a,b,c,d) Tremendous variety in the superficial expression of buildings is shown by comparing the external appearance of these four mosques from Cairo (top left), Bosnia (top right), Indonesia (middle) and China (bottom). It is essential to go deeper than superficial appearance to sort out the deep structure of culture and society. Photo 4b: J. Bétant/AKAA; photo 4d: Ch. Little

individual and society, it is of primary relevance to this discussion. That thread, however, has to be teased out of the existing observable social reality, not just taken from the historic sources of Islamic jurisprudence or theology. The external appearance of different Mosques, for example, does not explain the internal common thread (Figures 4, a, b, c, d).

Surprisingly, it is in the Muslim world where much of architecture is seen as either western or authentic, and where the debate about architectural form is most fervently joined in ideological terms. Architecture is seen as both functionally affecting behaviour (e.g. segregation of the sexes in the accessibility of space) and in symbolizing a state of being. This strongly argued double dichotomisation: society/built environment; behaviour/architecture, carries an ideological baggage it does not deserve. But the stresses of a society in transition make it impossible to raise discussion to the level of critical discourse that is truly essential if this exploration is to bear fruit.

The Muslim cultural space lends itself as both the battleground for such ideological positions and the progenitor of a new and constructive discourse pertaining to architecture and behaviour. In reality, it is uniquely suited to play that latter role, because of what I would characterize as its *flexible formalism*. The architecture of Muslim societies has always had a strong current of interplay with nature and its surroundings. The rules of building were never governed by the equivalent of the rigorous norms of Vitruvius or the formal layout of urban form found in many western societies. The interplay of this flexible formalism sets its product in a different domain than vernacular architecture, for it had and retains a willful effort at creating a sense of discovery and wonder. It has the ability to let individualism express itself, sometimes idiosyncratically, while retaining a certain sense of belonging to an organic whole, rather than the mechanistic view of fitting, straight-jacketed, into a geometric ensemble. Not any individual creation of urban master planning, but rather the additive qualities of the Muslim cities over the years have given them their distinct character.

It is not surprising, therefore, that the sense of place that such an architecture generates is challenging to both residents and visitors. It reflects a sense of boundaries, physical and psychological. The architecture seeks to express the boundaries between the public and the private, and between the transition zones in a physical sense of space, just as the behaviour is articulated in that same gradation of demeanour. It is not surprising that the iconography of Muslim architecture has put a premium on the gateway (Figures 5, a,) and the transition, almost as much as on the enclosed space itself.

The interplay between the manifestation of space and expression of behaviour finds its way into the ornamentation. Frequently restricted from using human form in decoration, the most intricate arabesques have become both a source of artistic expressions and of inspiration. Dazzling displays of geometric virtuosity and the profound abstraction that they provide for the contemplative have been an important part

of guiding behaviour within the buildings as well as reinforcing the sense of interiority that accompanies the viewer/user of the architecture (Figures 6 a, b). The vera

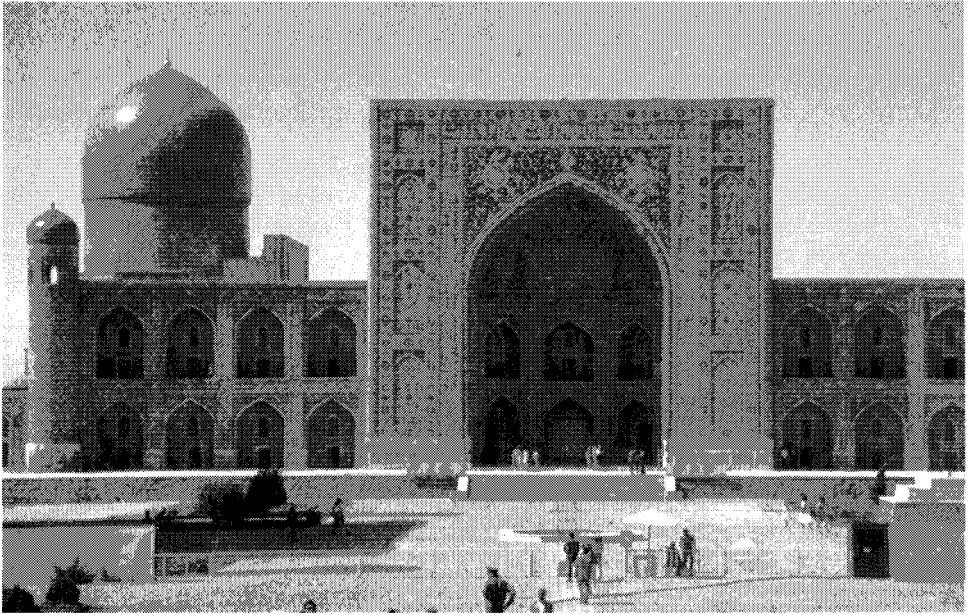


Fig. 5 (a) The gateway is accentuated in the elevated doorways of this *Madrasa* from Uzbekistan.

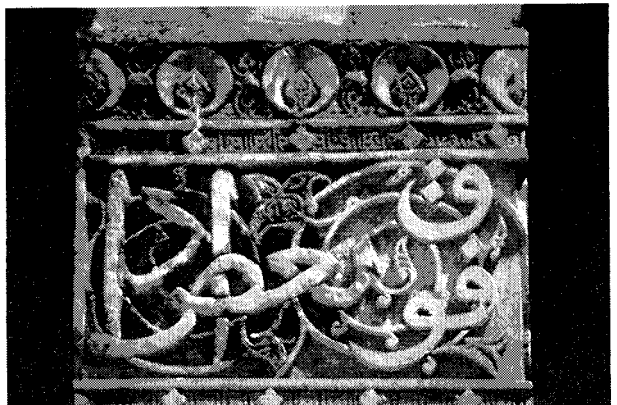
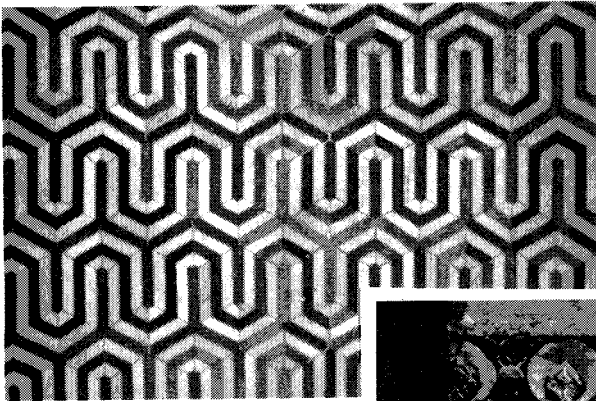


Fig. 6 (a,b) The use of complex geometries (top) and of elegant calligraphy (bottom), were staple features of ornamentation in Muslim religious and secular buildings. Photo : Gunay Reha

city of this view is supported by the complexity introduced into script, where even highly educated individuals can have difficulty reading a script that has subordinated textual clarity for the ornamental quality of calligraphy as decoration.

The Muslim cultural space, however, is the locus of much intercourse between cultures and media. It is no longer, if it ever was, the coherent expression of a harmonious socio-cultural reality. We should therefore avoid romanticizing the past and look it in the face, see it for what it is, and seek to build from it a better tomorrow.

### **Innovation and Continuity**

The architect is a member of a society and therefore reflects the values and behaviour of that society in his or her own behaviour. Yet, architects are both the keepers of a past heritage and the creators of the new. They mediate between the past and the future.

Architects have a unique responsibility to create both the urban space that people relate to as well as the language of form and ornament that they identify with. Architects have, therefore, a special responsibility to address the need to symbolize a state of being and to reflect the aesthetic sensibility of themselves and their clients. But do they, in so doing, also shape the behaviour of the users of the space that they are creating? The evidence seems to be an overwhelming, "yes".

Indeed one could argue that many of the western studies on behaviour of people in public spaces supports that view. The most interesting aspects of these studies are, that the most valued attributes of the urban space are exactly those that the Muslim heritage has valued. These are : the human scale, the presence of water, the ability to see many other human beings, mixed land uses, and smaller spaces offset a larger whole. These are all attributes of the traditional urban form in Muslim societies.

The same applies to the layout of buildings and their use. In recent efforts in the US-Midwest, the introduction of cul-de-sacs, smaller neighbourhood groupings and the elimination of direct drive through streets also reduced crime and enabled the local communities to reclaim their environment and their city. What was being done is almost a perfect description of the *harat* system of distribution of urban housing in the Muslim world (Figure 7).

The festival marketplaces, advanced by the Rouse corporation in the US as a substitute for the suburban shopping mall or the run down downtown, are no more than an artificially recreated *souk*, common throughout the Muslim world.

Against this background one may be tempted to argue that the architects in the Muslim world should be perpetuating the built forms of the past. That, however, cannot respond to the needs of an evolving population that demands vehicular access, TV and other forms of amenities so characteristic of our times. Nuclear families are



getting smaller, extended families are less significant. The effects of mobility and telecommunications bombard each individual with a barrage of images that saturate



Fig. 7 The urban form of traditional cities of the muslim world show an organic pattern of linked spaces and mixed uses. Within the texture there is a hierarchy of nested relationships that go from the individual to the family to the neighborhood harat.

the imagination, crowding out the reality of a less seductive present or the romance of a past long gone.

In my view architects must find new responses that take the most positive features of a past legacy and reinterpret it in current forms to meet tomorrow's needs. In so doing they also shape the behaviour of the users, by inviting them to discover a space, or, to congregate in another, as well as by suggesting belonging and privacy in the transitions that they articulate. The built form, the ornamentation and the interior space speak to the needs of tranquillity, seclusion and the serenity of belonging. The external treatment of facades that articulate the contemporary language of architecture is doubly charged. It symbolizes the image of self and shapes the image of society, that collective self that is distinct from the other.

Whether the architects in the Muslim world will be able to rise to these challenges remains to be seen. The challenge is not only there, but is clearly understood to be there. The responses of the architects show that they are, indeed, rising to the challenge. The effort to reinterpret the past in contemporary terms is found everywhere. We find it in the elegance of the small apartment hotel in Tunisia that draws on the scale and spacing of the traditional *funduks* (Figures 8 a, b, c). We find it in the skilful re-articulation of the urban spaces in downtown Riyadh and in the treatment of the Mosque by Rassem Badran (Figures 9 a, b, c). We find the skilful creation of interiority and meditation in the deceptively austere work of Hassan Fathy's Gournaa mosque (Figures 10 a, b). We find the sense of personal discovery and meditation in

the learned casualness of Wassef's Sculpture Museum with its unique articulation of spaces (Figures 11 a, b, c, d). We find it in the response of populations, battered by a non-stop flow of images to the kind of new vocabulary that engages intellectually as well as emotionally, as they do with the new structures of Ken Yeang (Figures 12 a, b).

The Muslim world is in transition. The effervescence of the old merging with the new creates a physical reality that is sometimes behind the social one, sometimes ahead of it. This is a time of promise and opportunity as well as risk for both architects and the behaviour of people. In the final analysis, both are products of the mind, and remain interlinked since humans live in space and time surrounded by architectural creations that reflect their desires, engage their imaginations, frustrate or promote their ambitions, or promote their reflection. It is in this two way interplay of architecture and behaviour that one finds the most profound manifestations of self and society.



Fig. 8 (a,b,c) The interior spaces of the Residence Andalous in Tunisia (top left), matches the traditional funduks (right), creating a beautiful contemporary space (below). Photo : Jacques Perez

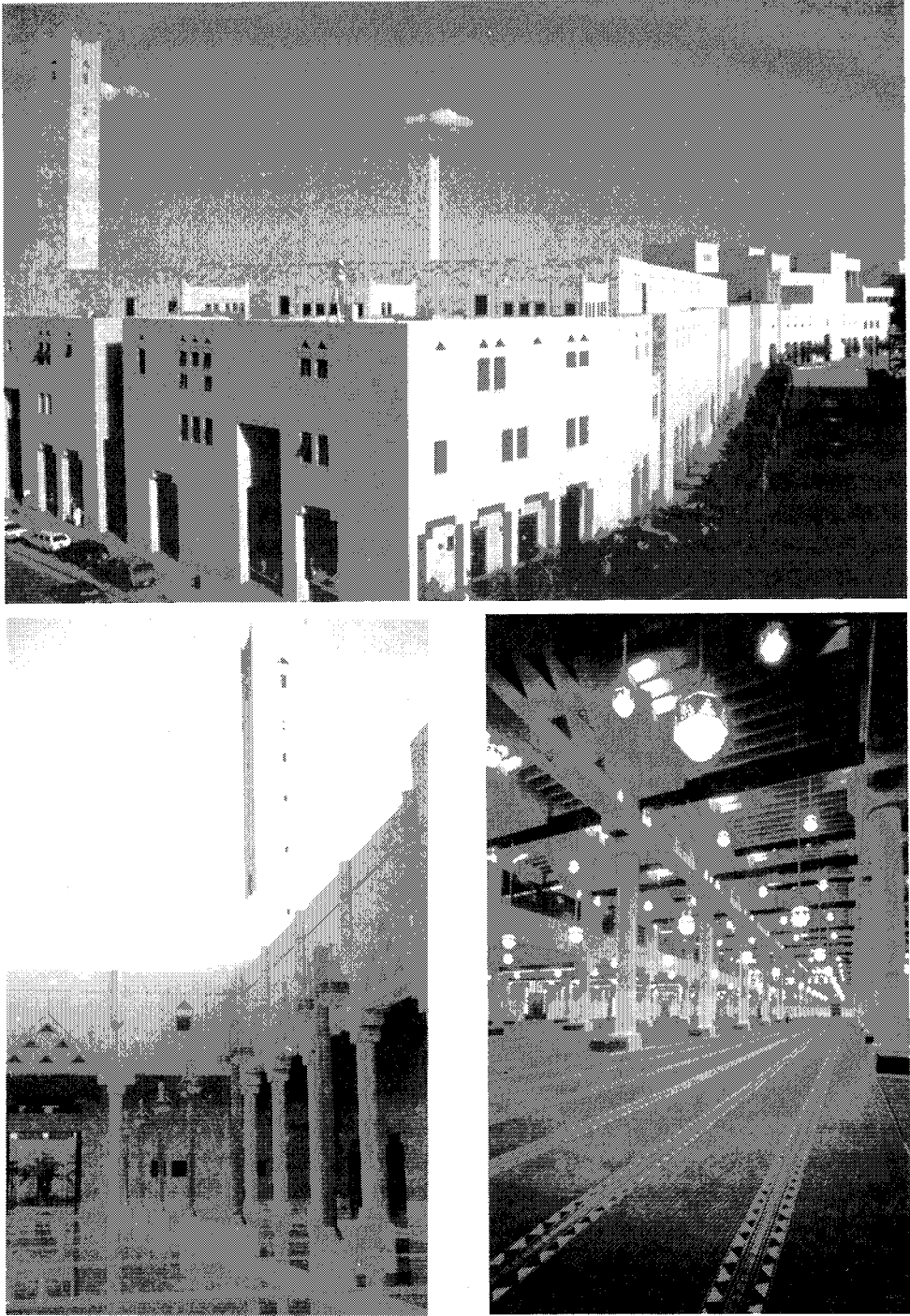


Fig. 9 (a,b,c) Rasem Badran's scheme for downtown Riyadh shows a superb articulation of space (top) and interesting reinterpretation of architectural language (bottom left). The Mosque is a successful, awe inspiring interior articulation of spiritual space (bottom right). Photo Rasem Badran

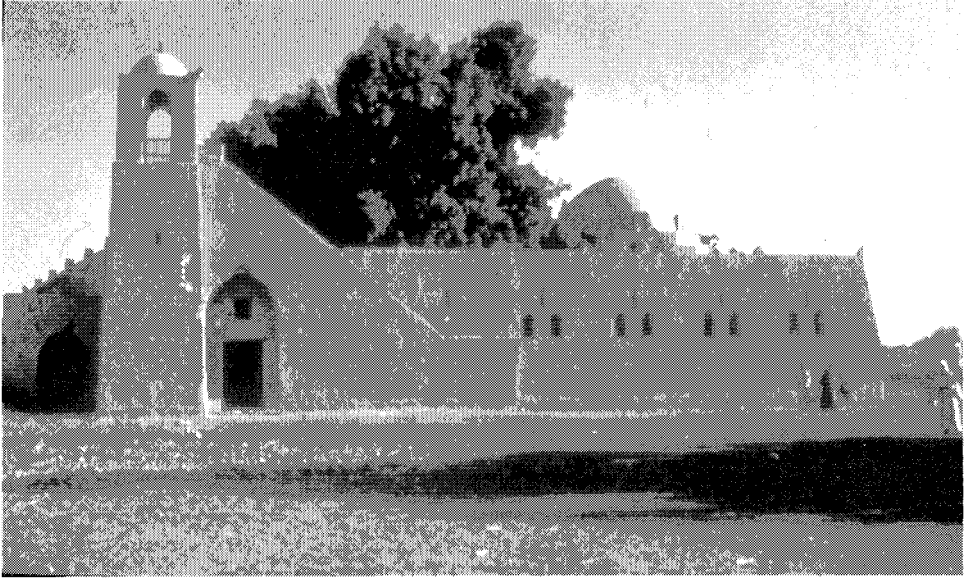


Fig. 10 (a,b) Built in modest mudbrick, Hassan Fathy's Mosque at Gournah, shows timeless elegance and balance in both its dome and its facade. It is inviting and spiritual.

Photo : C. Aredissian/ALLAA



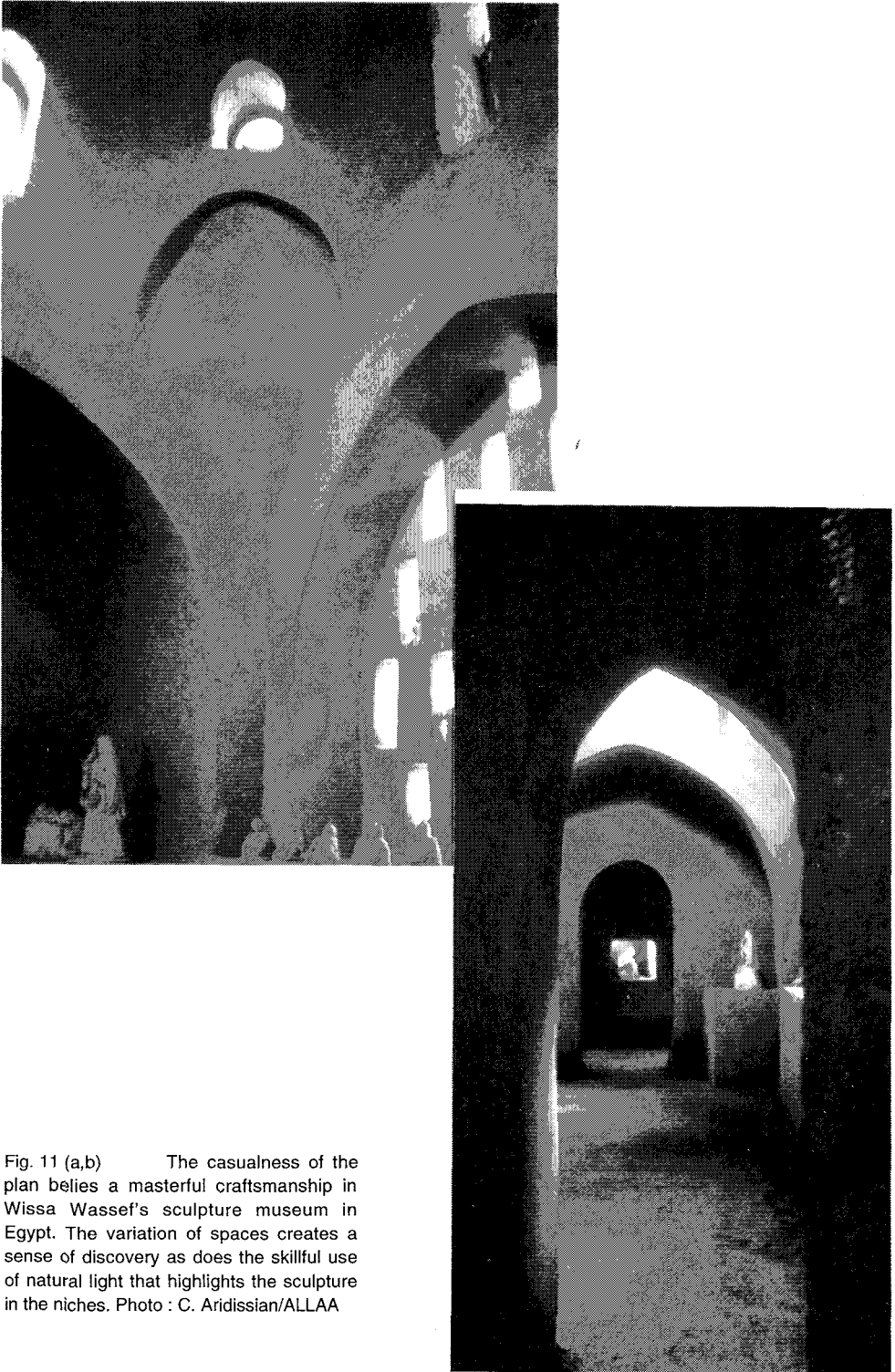


Fig. 11 (a,b) The casualness of the plan belies a masterful craftsmanship in Wissa Wassef's sculpture museum in Egypt. The variation of spaces creates a sense of discovery as does the skillful use of natural light that highlights the sculpture in the niches. Photo : C. Aridissian/ALLAA

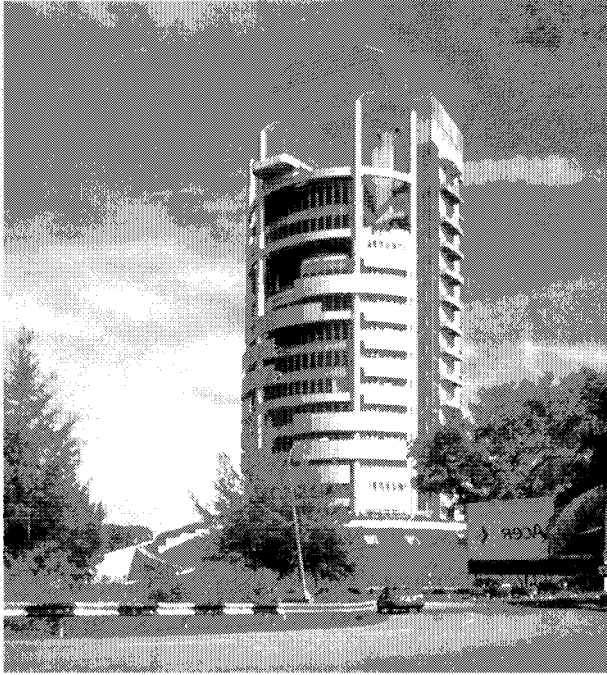


Fig. 12 (a,b) Ken Yeang's new architectural language opens whole new vistas to the contemporary imagination. Photo : K.L. Ng