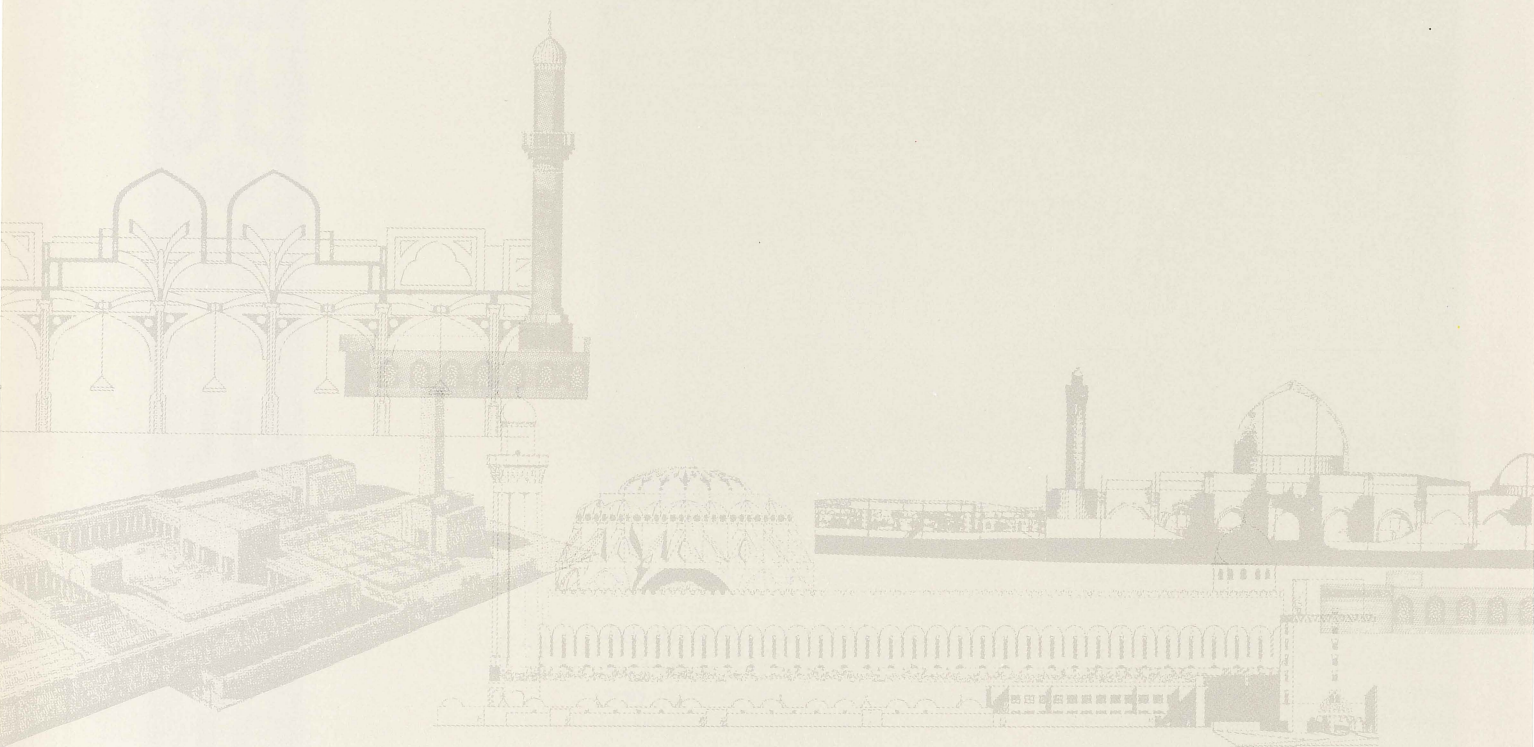


Regenerative Approaches to Mosque Design

Competition for State Mosque, Baghdad



The competition for the new State Mosque in Baghdad, organised under the auspices of the Municipality and the Special Committee for the Mosque, is a major architectural event in the Muslim world. MIMAR is privileged and fortunate to have obtained the cooperation of key actors in this unique process — from Mr. Rifat Chadirji, architect and special consultant to the Mayoralty of Baghdad for all urban planning; Dr. George Dudley who aided in preparing the brief and was Secretary to the jury; and the six architects whose projects were retained and were presented to His Excellency, President Saddam Hussein during an international symposium in October 1983. In addition,

we have included a personal appreciation of the various mosque designs from award-winning French critic, Mr. Bernard Huet, who was an invited participant in the Baghdad symposium.

On the following pages we are happy to present — all to briefly — the remarkable expressions of creative talent which was brought to the task of designing this monumental building by Ricardo Bofill, Maath Alousi, Robert Venturi and Denise Scott Brown, Rasem Badran, Mohamed Makiya and Al-Madfai. The next phase of the project's development and the future role of the six consultant architects is to be decided by His Excellency, President Hussein in the near future.

State Mosque, Baghdad

Projects by

Venturi, Rauch,
Scott Brown
Taller de Arquitectura/
Ricardo Bofill
Shubeilat, Badran,
Kailani
Makiya Associates
Test/Maath Alousi
Kahtan Al-Madfai

Statement by the Competition Organisers

It is now accepted that the hallmark of recent construction activity in Baghdad has been the *comprehensive* approach to development. The majority of buildings proposed in the city are of an integrated nature, involving housing, offices, shopping, cultural and educational facilities, the conservation of traditional neighbourhoods, as well as individual structures. However, there are also two other factors in the process of physical planning which are of paramount importance. One is the policy adopted for upgrading the quality of development, both in terms of design and construction involving new materials and the latest building technology. The other is concerned with architectural style.

International as well as Iraqi designers, commissioned by the Mayoralty of Baghdad, have been made aware of the requirements of architectural style. Each development zone was integrated into a clearly defined design policy. Every designing architect was given enough freedom to interact within the set policy. Guides and manuals have been prepared for them, dealing with the required compatibility for particular settings and design criteria in each zone. As a result of these efforts, designs prepared by the architects were congenial with the locality into which the buildings were situated, as well as being compatible with the overall traditional character of the whole city.

At the time the State Mosque project was initiated by the authorities in Baghdad, this design policy was already well-developed and was even taken further during the design programme of the building.

The religious and political importance of the Mosque, together with its monumental scale, offered an opportunity to make a significant contribution to architectural design. Regardless of whether it would ever be achieved or not, this consideration became a major objective. In fact, the authorities considered the project as an important cultural event of the present time and one that would remain significant in the future. Therefore the architecture had to be handled with skill and sensitivity by those in the prequalification process as well as individual designers who took part. It became clear that the nation in general and the authorities in particular, looked forward to the contribution that the new

architecture would offer.

Iraq like many other nations, had a great architectural heritage. For the last five centuries, this heritage lay dormant. Moreover, the impact of a new life-style, based on technological development, produced unsatisfactory environmental and socio-economic conditions. Consequently, the pursuit of achieving an architectural realisation is likely to bridge the gap between architectural heritage and the impact of technology. The objective must be to adapt modern design, utilising architectural features from the past in order to create a contemporary regional architecture, worthy of the nation's heritage and aspirations for the future. This principle gained increasingly in importance in the course of formulating a strategy for the competition.

Rifat Chadirji
Architect
Counsellor to the Mayor of Baghdad
January, 1984.

Brief History of International Competition for the State Mosque for Baghdad, Iraq.

His Excellency, President Saddam Hussein, during the International Symposium held in Baghdad, Iraq, October 29-31, 1983, stated that the idea of constructing a central mosque in Baghdad and other mosques in the provinces of Iraq first emerged in 1979.

During the early spring of 1982, detailed study was given to the Programme Brief and to the site for this monumental undertaking. On April 25, 1982, Architect Rifat Chadirji, Counsellor to His Excellency, the Honorable Lord Mayor of Baghdad, Samir Abdul Wahab broached the possibility of a competition to the author of the following brief history of the International Competition which evolved.

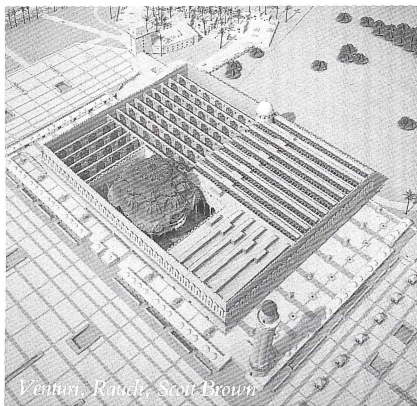
Concurrently a detailed study was made within the Ministry of Awqaf and Religious Affairs, in conjunction with the Amanat-Al-Assima (the Mayoralty of Baghdad), of the most appropriate size of the mosque complex and the programme of activities to be contained within it. Alternative maximum capacities of 15,000 to 40,000 worshippers for the most important Holy Days were analysed in all respects (performance of prayers and supporting ritual; ablution and entrance; exciting; acoustical and other systems' limitations; pedestrian, vehicular,

service access and parking; etc). After thorough evaluation a capacity of 30,000 worshippers was decided upon (including a female prayer area for 3000 persons; with an additional open air prayer area for 4000 persons).

The State Mosque is also to serve as a centre of religious teaching and research, with a large library, meeting rooms and accommodations for visiting religious officials.

As stated publicly later by His Excellency President Saddam Hussein, the Mosque must bear the heritage, not only of Baghdad, but of Iraq and the Islamic Nation as a whole and be open to all those from around the world who would gather and direct themselves to Allah.

In early July, 1982, a Committee on the State Mosque Competition was appointed by the President, on recommendation of the Mayor of Baghdad, consisting of: Chairman Rifat Chadirji, Counsellor, Amanat-Al-Assima; Dr. J.



Kettaneth, Ministry of Awqaf and Religious Affairs; Halim Witwit, Ministry of Public Works and Housing; Dr. Sabah Azzawi, Amanat-Al-Assima Design-Department; George A. Dudley, F.A.I.A. Professional Advisor-Coordinator.

Telexes were sent to 22 architectural firms world-wide announcing the closed International State Mosque Competition and inviting their participation, and submission of qualifications. In September, the Selection Committee appointed by the Chairman of the Competition Committee met, evaluated the prequalifications and recommended the following competitors: 1) Maath Alousi — Test (Iraq); 2) Kahtan Al-Madfai (Iraq); 3) Makiya Associates (Iraq); 4) Venturi, Rauch and Scott-Brown (USA); 5) Minoru Takeyama (Japan); 6) Rasem Badran (Jordan); Ricardo Bofill (Spain) and Iraq Consult.

Dr. J. Kettaneh and George Dudley

prepared the Competition Programme Brief which was distributed September 27 for the Competition to run from October 1 to the submission date of January 10, 1983. The "Statement of the Purpose and Objectives of the Competition" (Paragraph 9.0) was as follows:

"The creation of a State Mosque in the capital of the Republic of Iraq is a historic event. Its design and construction will be the highest expression in creative and physical terms of the religious, state and national beliefs and aspirations of the people of Iraq and their leadership.

"A State Friday Mosque is created to provide a worthy monumental frame and setting for the expression and practice of the beliefs and achievement of the aspirations of Islam. Throughout the Islamic World such settings, when they are being created, synthesize the history and heritage of Islam with the contemporary quality of life.

"The current resurgence in the city of Baghdad, harkens back to the Round City of Al-Mansour, capital of the Abbasid Empire, and is a time of such creative synthesis of the past and the present.

"This synthesis in the form of a mosque will become a living extension of the beliefs of Islam, entering the heritage and tradition of Islam life for future generations.

"Thus the heritage of historical settings and styles as well as contemporary design qualities must all be integral to the final architectural creation. The State Mosque is of such magnitude and importance that it should reflect in certain spaces to be selected by the competitor, and confined to those spaces, certain stylistic features from such Islamic countries as Egypt, Morocco, Syria, etc.

"The traditions and heritage of Islam are as rich and complex as human life itself. It is not the purpose of this programme to specify a set of requirements for the expression of such a wealth of physical, intellectual and spiritual needs and expectations. It is the intention, rather, that diverse and expert teams of architects and historians from both in and outside of Islam, and Iraq, will synthesize and propose architectural concepts and solutions reflecting a creative understanding of the needs and uses of a State Mosque in Baghdad, in Iraq, in Islam."

A full Mid-Point Briefing was held in Baghdad, November 20-22, which concluded with all questions submitted by the competitors being discussed and needed clarifications made.



The Jury selected for the Competition included: Rifat Chadirji, Chairman, Stefano Bianca, Professor Dogan Kuban. Mr. Dudley, Professional Advisor, served as Secretary of the Jury. The Jury studied the projects on February 1 and 2, and agreed on the following four basic Categories of Criteria:

1) Functional

First, in its Religious and Liturgical Functions; and second, in its Educational and Social Activities; and third, in its Technical (Technological) Functioning, and relating to the cultural, urbanistic, and physical climates of Baghdad.

2) Formal

First, in its "Religiosity" and the formality of its position as major mosque in the hierarchy of mosque in the nation; and second, in the formality and monumentality of its position as State Mosque — a national monument and one of the great centres of the Arab Nation.

3) Cultural Continuity

As representing the continuity of the heritage of the architecture of Iraq, and corresponding with or compatible to the indigenous architecture of Iraq and the region, and the continuity of the educational, scholarly, and other cultural and social heritage.

4) Architectural Quality

Representative of an architecture of great quality in all aspects.

There followed a discussion of "style". It was stated that "in the state of architecture in Iraq there does not exist a style as such (e.g. Renaissance). Even when there is reference to the Abbasid period, if one approaches a "classical" heritage it would be to identify the particular "classical Abbasid" period. On one hand, when the project is at such a large scale it cannot relate only to the immediate local indigenous architecture — there is such a huge history of Islam. But, at the same time, architects should look for a style that is not showy.

The results of the Jury's voting were the unanimous recommendation of Pro-

ject No. 2 (Badran) as the First Place, with Project No. 4 (Bofill) and Project No. 7 (Alousi) named to be invited to give support to the winner. This result was subsequently made public at the end of the Symposium held in Baghdad October 29-30, 1983. Action was not taken on the recommendation of the Jury pending the Symposium, after which new recommendations were made based on consideration of the first Jury's recommendation, plus the further considerations developed in the Symposium and the final decision of the Sponsor.

An International Symposium to assess the submissions of the work of the Competitors, under the patronage of His Excellency, President Saddam Hussein, was conducted by the Amanat-Al-Assima in association with the Ministry of Awqaf and Religious Affairs. In addition to all those previously involved in the Competition, there were invited Islamic architectural historians, religious officials and philosophers, architects, poets and others appropriate to this assessment, making an attendance of over 300 participants. The two-day open discussion (with continuing inspection of the submissions) took place in the National Assembly and was attended through much of the deliberation by His Excellency the President, who heard all the seven competitors make half-hour presentations and spoke at length as to his own considerations of the importance and purposes of the State Mosque, and its relation to the Islamic Nation as a whole. A summary of the Symposium follows this Brief History.

Summary of Proceedings

During this critical and exciting period of Iraq, the participants to this International Symposium were all conscious of taking part in an important historical event. This event was the search for values and greatness in perhaps the most important symbol in this era of aspiration with deep beliefs in Islam.

As his Excellency President Saddam Hussein stated so eloquently: "We are in a part of the process that responds to and is an outcome of the past; is deeply in the middle of the present; and is an advanced part of the future."

It was felt that all participated fully, reflecting on the complex problems and on the opportunities. For the first time a competition and symposium drew strength from the gathering of interna-

tional architects and many other experts.

His Excellency the President said that the contribution of the designers and others who took part in this process will be recognised. At the start of the Symposium, His Excellency Samir Abdul-Wahab, advised the participants to study the project of the State Mosque as a symbol in history. The main purpose of this Symposium was to study and to benefit from the observations of all those invited.

In the same spirit of *study*, it was proposed that a *framework* should be set up for continuous monitoring and that *categories* for further work should be suggested for the most important topics. It was also felt that by this means, the conclusions reached by all participants could be developed further for the decision makers' consideration.

A list of categories of consideration, based on the Symposium discussions, was proposed for further development of this important study. The list was not in

and the World as a whole. In this way, all who pray there, will find the house of God they seek.

It was stated that prayer was the basic function of the Mosque. This was reinforced by many statements, but also stressed was the balance between social and cultural functions, as well as the teaching and community functions. An even more important balance was to be found and planned between the religious and spiritual and with the political or government aspects.

In his analogy with the strength of a tree, the President related the Present or Modern and the Traditional as a tree. The roots were the Past but without the branches and the leaves of the Future the tree would be without life. As Architect Venturi said: "precedent must be combined with invention."

It was envisaged that the mosque would be a work of *Distinguished Architecture*. This would be expressed by



Shubeilat, Badran, Kailani

any order of priority but recommended a sequence for developing the philosophical and design criteria from the general to the particular; from the physical to the spiritual.

It was proposed that the Mosque should be a "Great Symbol of development, shining all over the world, so every visitor will be excited to see it." It should have symbolic significance for the State, representing Life & Hope, acting as the link between Religion and Life and as a centre of knowledge and culture. Chairman Madfai suggested it should be a symbol of the tradition and originality of the Arab World.

Another important contribution was the *Scale*, the very size of the Mosque, which was established by studies undertaken by the Ministry of Awqaf for a capacity of 30,000 people. His Excellency the President said that scale would be representative of Iraq, the Arab nations

the impression, the mood and the impact, it would convey, to be remembered and to uplift the spirits of all.

George A. Dudley, F.A.I.A.
Professional Advisor

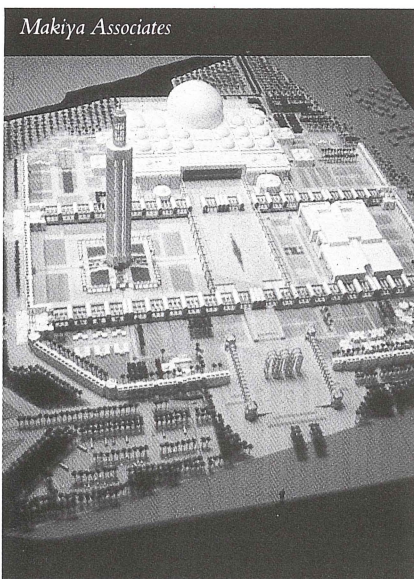
Reflections on the Projects ...

The essential question is that of constructing in 1983 a State mosque in Baghdad. This question entails three major problems, concerning: 1) The symbolic nature of the monument; 2) The typology of the religious edifice; 3) The formal language that is most appropriate.

1) The problem of the symbolic nature of the State mosque can be formulated immediately in a most obvious way. It is an exceptional monument that must take its roots in a tradition, and must symbolise the yearning of the Iraqi people towards a future of spiritual, mor-

al, and material progress. Such a monument ought to be located at the centre of the nation, and offer itself as a sign of gathering together, of social consensus and national unity.

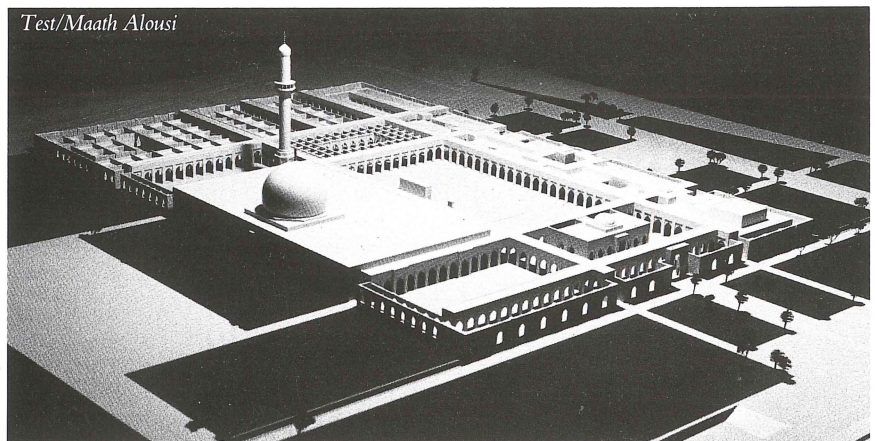
However, the monumental expression of such a programme presents several alternatives, or possibilities of choice, the results of which might conceivably be contradictory. The monumentality could be obtained first of all by the situation of the mosque in the city, and the relationships which it may have with the other monuments of that city. The singularity of the site, its isolation and its centrality are factors which lend monumentality to an architectural object. In the Arabo-Islamic tradition, the founders of capital cities used to place the Great Mosque at the geometric centre of the city and to have the urban design depend upon this centre. Thus, the Baghdad of al-Mansour might obviously be consi-



Makiya Associates

dered the archetype for this kind of strategy; and, the isolation introduced by the Abbasid Califs around the State Mosque reinforced its monumentality, *but* we should not be misled about the significance of this isolation. It is not a separation of the Mosque from the city itself; on the contrary, it signifies the equidistant positioning of the faithful around their most important symbol.

The site selected for this competition is vast, isolated, but separated from the city. Without wishing to place the State Mosque at the heart of Baghdad, it might have been possible to imagine that its location could reinforce one of the major existing poles of development in Greater Baghdad; or, that this mosque become



Test/Maath Alousi

the starting point of a radical restructuring of the urban periphery. The actual site might certainly offer the opportunity for a great, monumental display, but the symbolic nature of the building, and even its functioning, might run the risk of being handicapped by distance and isolation from the most active areas of the city.

With regard to the intrinsically monumental quality of the building, it depends upon several objectives, which could be attained separately or as a group in order to obtain the maximum rhetorical effect. This latter feature, of saturation of effects, always involves a great risk — which might even go against the idea of a mosque in traditional Islamic thinking. One can attain monumentality simply through gigantic scale, i.e., height, covered surfaces, volume of the edifice. This is the only quality of the project by Mr. Makiya, and to a lesser extent, in the projects by Mr. Venturi and Mr. Bofill.

One can also attempt rhetorical pomposity by creating a system of axial composition, play a symmetry, and perspective effects to reinforce a strong visual hierarchy of volumes and their submission to a predominant centre. This is perceptible in the projects by Mr. Bofill and Mr Al-Madfai. But this baroque configuration of space is used very rarely in Arab tradition. Some of the competitors here are misled in making references to the Taj Mahal — which is a mausoleum, *not* a mosque, and was erected by a king in order to glorify, his own dynasty. This has nothing to do with Islam as a faith.

However, monumental singularity can also result from decorative accumulation, ornamental richness, and a sumptuous use of materials which tend towards a total semantic saturation of space. We find the use of these effects frequently in a particular tradition of Ara-

bo-Islamic architecture in Iraq itself (at Kerbala, Kufa, or Baghdad) The projects by Mr. Makiya, by Mr. Venturi and by Mr Al-Madfai refer explicitly to that tradition but they tend to forget that Arab architecture keeps this colourful ornamental sumptuousness for enclosed spaces, only glimpsed from doorways, and for volumes which dominate the enclosure, such as minarets and cupolas.

Finally, there is one last means to attain monumentality without having recourse either to gigantic scale, axial rhetoric, or external decorative richness, and which is quite frequent in the grand tradition of Arab architecture. It is obtained by way of a juxtaposed richness of simple spaces, the multiplicity and the diversity of sequences, of discoveries, by the grandeur and geometric perfection of various volumes, the careful balance of materials for decoration and of colour. The *anti*-rhetorical character of the project by Mr. Badran, above all by Mr. Alousi, belong to this category.

2) The second problem raised by the construction of the State Mosque is that of either staying within the bounds of a typology which has been the same for centuries, or of possibly going beyond that typology. The typology for the mosque was established very early in the history of Islam. The conditions for individual and collective prayer, having been rigorously formulated by sacred texts, were probably determinant in creating a certain number of essential characteristics of a primitive type of mosque: the call to prayer, the purification rituals, the definition of the sacred enclosure, the orientation towards the *Ka'ba*, the egalitarian alignment of all the faithful parallel to the *qibla* and behind the Imam are so many elements containing the necessary geometric attributes for explaining the plan of the first mosques. But, they are

inadequate for revealing not only certain necessary spaces, their form and their sequence (like the court, for example), but also the presence of certain symbolic elements like the cupola, the niche, or the arch. It is therefore around these spaces and these architectural elements that variations on the primitive type were developed, that can be observed in diverse Islamic cultures throughout history. Nevertheless, one might ask if it is possible to go even further, to do as modern architecture has so often done and force oneself to go beyond the traditional type, in order to invent another. Certainly not, because the essential function of a religious edifice is permanence, it cannot be "modernised" since it is outside of time and of history. The mosque typology is much more than a spatial disposition because certain symbolic qualities of its spaces are implied by the very practices of the faithful.

Most of the competing projects have glorified the cupola as a symbol of the heavens and of God himself, whereas in the mosque-type (which is different from certain types of Christian churches) the cupola is never the dominant theme, given that one of the geometric properties of the cupola — its centralising force — contradicts the linear and parallel geometry of the faithful united in collective prayer facing the *qibla*. One of the projects, that by Mr. Makiya, goes so far in exploiting the dome that the *qibla* wall becomes transformed into a vast apse, which in fact runs contrary to the spirit of the Mosque typology.

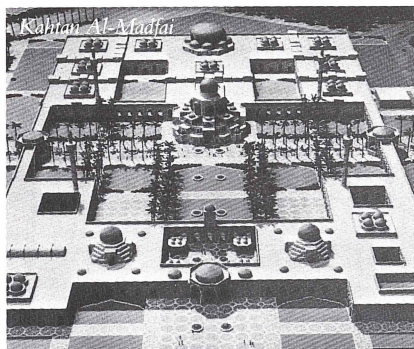
In my opinion, modernity therefore consists in a return to the essential aspects of a primitive typology for the prayer hall.

With regard to the courtyard which precedes the hall and which serves, as everyone knows, for prayer as well, it should retain a closed, autonomous, mineral quality, protected from the exterior; its geometry ought to be a reflection of that of the prayer hall.

Several of the present projects, either out of a desire to be modern or out of a misunderstanding of the problem, radically transform the idea of the court. Mr. Makiya make it into a vast, monumental square open to the winds. Mr. Venturi treats it like a public hall by covering it with a cupola, while Mr Al-Madfai gives it the aspect of a garden that serves as a transition between the prayer hall and surrounding buildings. Finally, and certainly more subtly, Mr. Badran preserves

the closed, geometric character of the court but weakens its autonomy, its isolation as a space unto itself, by giving it the function of a distribution area for annexes to the Mosque. Only Mr. Bofill and Mr. Alousi give back to the court its true character of a room open to the sky, a space conducive to prayer for the believer, but also designed for prayer. The places for ablutions which accompany and/or precede the court have vanished, or been assimilated into "modern sanitary facilities", in all of the projects except one (by Mr. Alousi) which is to say they have simply been relegated to the level of hygiene, or total insignificance. Paradoxically, however, many of the competitors have included ornamental pools, a symbolic incorporation of water, without realising that it is precisely in the cleansing act that the symbol retains its maximum effect. To be convinced of this, it should suffice to take a look at several superb examples of ablution places in mosques throughout the Islamic world, whether in Turkey, India, Yemen, Egypt or Morocco.

In addition, I would like to raise a problem which was widely debated, that of the minaret. Of course, the minaret



serves for the call to prayer and it is, by its high elevation, a symbol. In the ancient cities of Islam the minarets dominated all the other buildings around them, manifesting the hierarchy of values upon which Islamic society was founded. Today Western modernism, with its materialistic values based on money and consumerism, has endowed these cities with high-rise buildings intended for bureaucracy and for business, thereby destroying the visual imagery of spiritual values that predominated in the city. A question, then, comes to the fore: is it possible for *two* forms, symbolising totally opposed values, to coexist in a modern city? Should we make minarets higher than the office towers? Or rather, should not political powers define codes for

limiting the heights of buildings, which would clearly impose a sense of monumental hierarchy upon the city? This was always the case in the ancient cities of the Arabo-Islamic world. It is this latter solution, in our opinion, which is the most global, the most difficult, but also the most courageous that the urban planning authorities in Iraq could adopt.

3) In conclusion, I should like to address the issue of references to tradition through the choice of an architectural language. Here, the question is not exclusively one of religion, since it implies the whole cultural domain of Arabo-Islamic societies asserting their existence in the face of cultural imperialism by industrialised countries. In this respect both Eastern socialism and Western capitalism have certain things in common: references to a cultural tradition in order to make it live again does not just mean undertaking a superficial game of stylistic references, Abbasid or other, to which many of the competitors have succumbed. Stylistic games which are not morally reprehensible in themselves, and perhaps can be an indispensable step in emphasising visible differences with the modernity of developed countries; and, national traditions may even have value again in the eyes of certain Arab peoples. But such an endeavour may become useless and even negative if it leads only to camouflaging surfaces that marks a space, whose very concept, for example is foreign to Arabo-Islamic culture. The primary effort by architects should rather modestly consist therefore in learning the essential elements of a tradition, particularly the Arabo-Islamic concept of space, a concept which denotes a specific kind of space that ought to be understood as much by its visual manifestations, by its geometrical or compositional order, proportions or ornamentation, as by its mode of production and its social and cultural effects. From this point of view, most of the projects presented have little relationship with an Arab concept of space.

Only the project by Mr. Alousi reflects this, by a multiplicity and juxtaposition of spaces. Above all Mr. Alousi indicates an approach which easily does without the heavy stylistic allusions in order to attain an essential, and regenerated expression that is compatible with our time.

Bernard Huet
Symposium participant

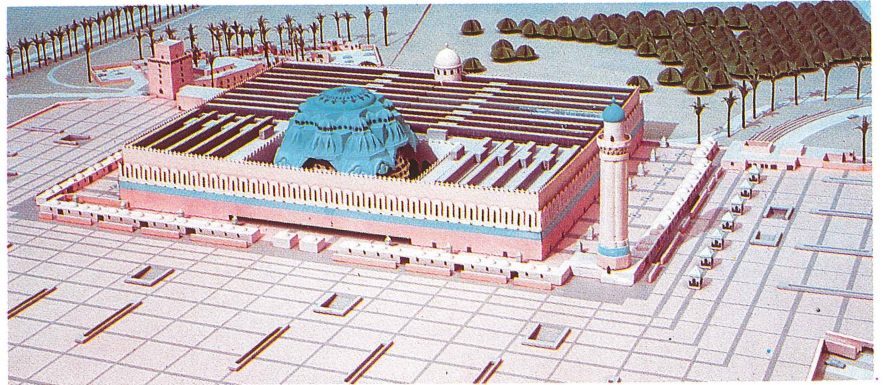
The challenge of the design for a State Mosque for Iraq is awesome. It must solve formidable problems of structure and function that arise when large numbers of users are involved, and it must do so with sensitivity to the urban and environmental context and with a deep understanding of the symbolic and ornamental dimensions that are embodied in the cultural and religious heritage of Islam in general and of Iraq in particular. The image of a State Mosque must be at once profound, to speak to future ages, and popular, to be loved by the people of Iraq today.

Our aim was to elicit the design of the mosque from the idea of communal prayer. It has been thought of as the great *musalla* for the communal 'Id prayer. It is of a scale and size rarely found in contemporary mosques, and yet, it must accommodate small groups and individuals. Small elements juxtaposed upon the monumental scale will work to acknowledge individual prayer and add a human dimension to the Mosque.

The functional model for the State Mosque must be the congregational mosque, al-*masjid al-jami'*. Communal prayers on Friday and al-'Id need few programmatic components: space oriented toward the *qibla* for worshippers and a place for the imam in front. In the middle of the *qibla* wall is the *mihrab* and next to it the *minbar*. Their presence became a formal and functional requirement of al-*masjid al-jami'* when monumental mosques began to be built. Soon, a small dome was used to enhance further the space in front of the *mihrab*. All Abbasid mosques hold to this clear and limited, traditional programme; but *mihrab*, *minbar*, *maqsurah* as well as minaret are all additions to the fundamental concept of oriented space. Through time, these elements have accumulated important aesthetic and symbolic charges and have become an integral part of the model of the *jami'* mosque today.

The symbolism of the State Mosque must express its position as the premier mosque in its region. To achieve this eminence, the Mosque, while drawing inspiration and meaning from the heritage of historic mosques, must be clearly of its own era.

In trying to fulfill these ideals, we turned to the hypostyle plan, the primordial mosque space throughout the Islamic world. Particularly important examples of this type, such as the mosque of al-



Mutawakkil at Samarra, were native to Iraq and were the prototypes for mosques elsewhere. The great size of these traditional mosques and their egalitarian and non-hierarchical nature made them important guides for us in the development of our design for the State Mosque.

We have adapted the hypostyle plan to take advantage of modern construction techniques. The series of arcades which define the form of the sanctuary are lifted high overhead and are supported from above, so that the great space is delineated by the arcades aloft but left relatively open below. To worshippers entering or leaving, the view of the repeated arcades with their play of light and decoration is uplifting and majestic. These qualities prepare the way for a moving experience for the individual or group at the time of prayer.

The adaptation of the hypostyle plan and the use of traditional ornament in new ways help to acknowledge that this Mosque is evolved from the model of traditional mosques. We felt that an energetic attempt should be made toward understanding and using traditional ornament in a modern mosque. Reinterpreting these formal and decorative elements gives the interior of the Mosque a symbolic dimension that inspires the vast newspace. On the exterior of the Mosque, ornament is used eclectically and at size consistent with the great scale of the building. This establishes the special character of the Mosque. The presence of calligraphy on the walls of the Mosque underlines the symbolic and decorative aspect of the facades.

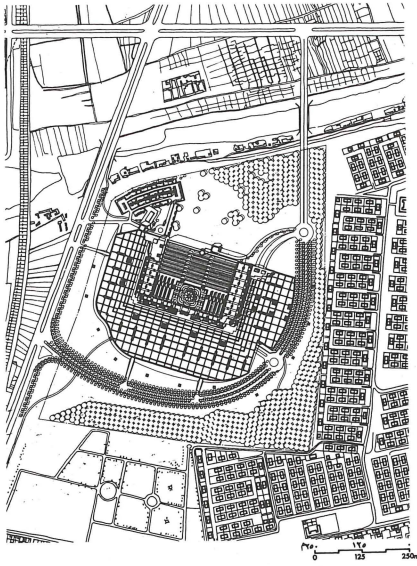
Traditional forms and symbolic elements are used throughout the building to enrich its architectural content, broaden its appeal to diverse groups of worshippers, and add human scale and meaning to its enormous size. We have juxtaposed symbols and ornament from diverse sources without being historically

Model of Mosque complex

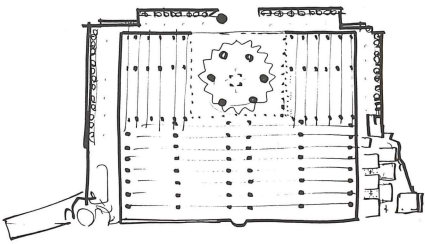
literal in scale, context or materials. There is no ambiguity, therefore, about the age of the ornament or its craftsmanship which is often not practical to emulate today. Form and ornament, reinterpreted in this way, can be easily recognised, not as a literal reproduction, but as a new sign which represents the meaning of the old. In this way the building becomes at once modern and familiar.

The State Mosque should be perceived and recognised from great distances. For this reason, a large dome is an important element in our design on the exterior. Domes have long been associated with mosques and particularly with contemporary mosques. But the dome which we want to build will be built not over the sanctuary, but will be a shading dome over the inner courtyard, or *sahn*, of the Mosque. By not attempting to integrate the dome within the sanctuary, we are better able to preserve the egalitarian quality of the hypostyle plan. The form of this dome is also not traditional. What is perceived from the distance as a monumental dome appears at close range as a buoyant, tree-like canopy shading the *sahn*. The dome is faceted with *muqarnas* elements. The *muqarnas*, one of the most outstanding inventions of Islamic architecture, was the inspiration for this faceted, shading dome.

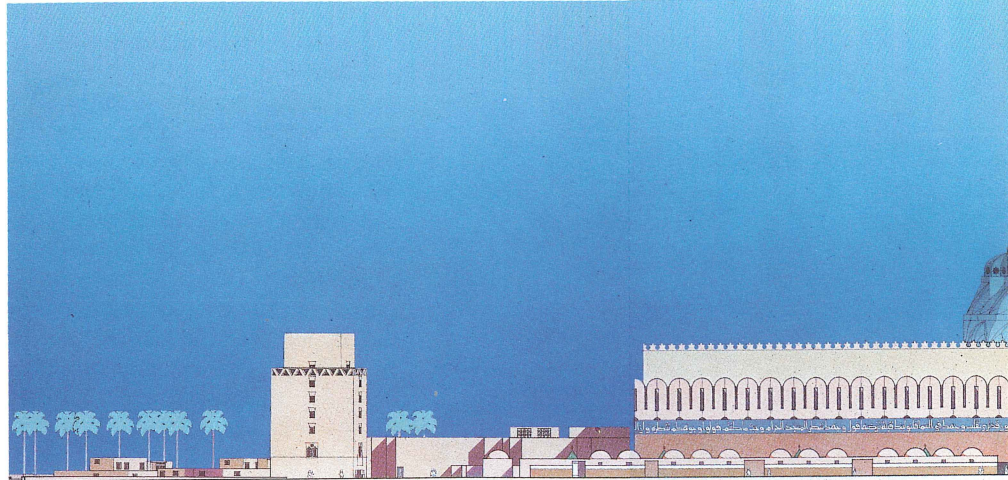
Our principle guiding ideas have been to develop a building in which scale and elements express monumentality in architecture as well as human scale; in which the spatial layout is unequivocally egalitarian; and where symbolic elements such as arcades, ornament, dome, *muqarnas*, crenellations and minaret have clear and acceptable referents. This approach to the design of the State Mosque should generate a majestic image from without and a series of profoundly moving spaces from within.



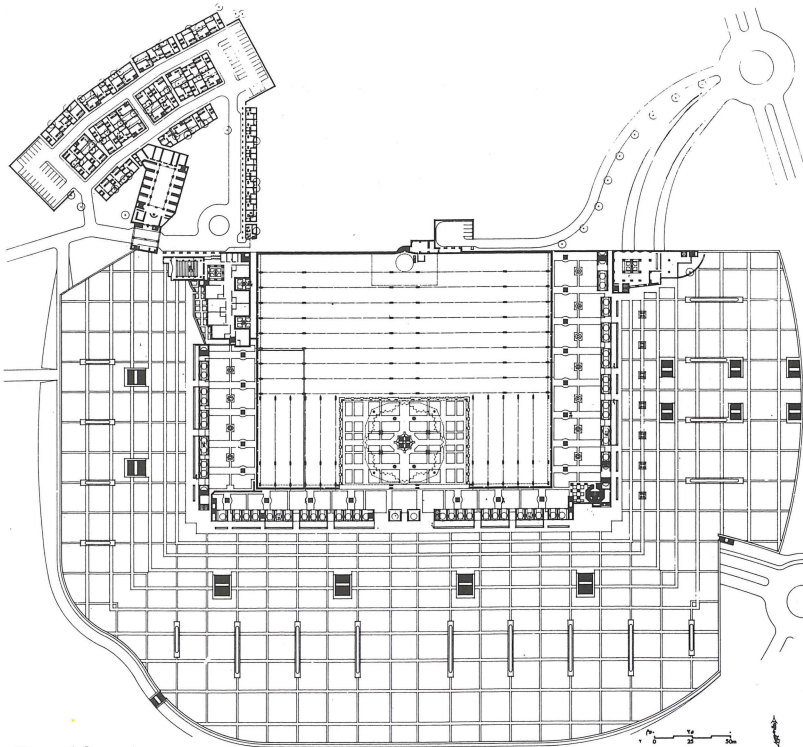
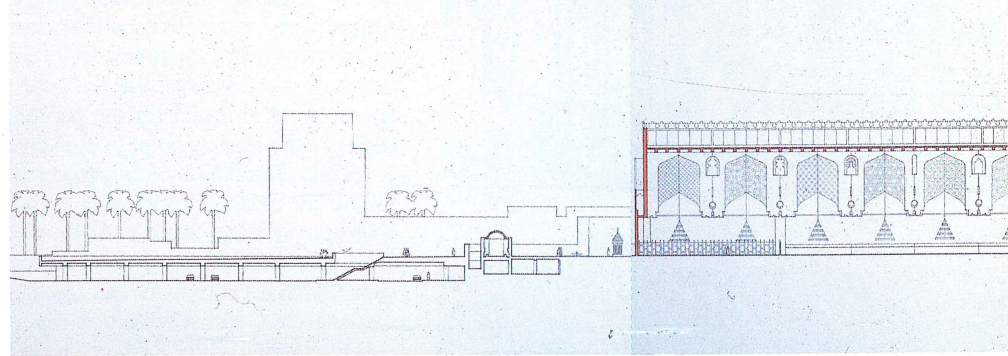
Site location plan



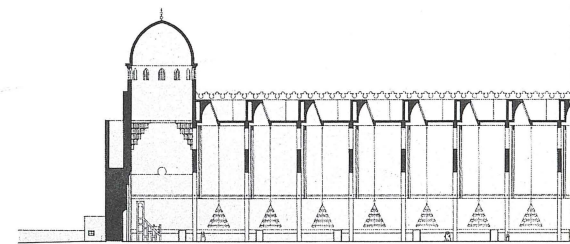
Sketch plan



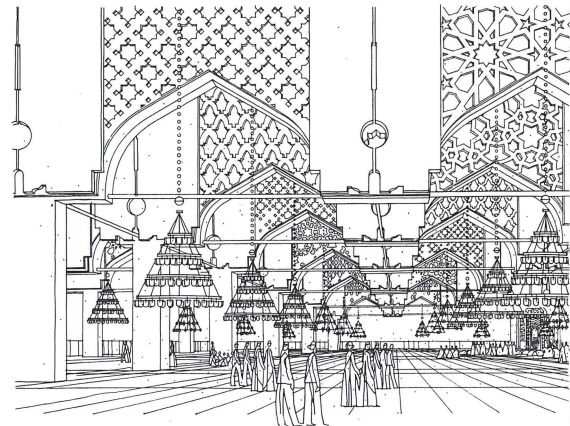
North elevation (above) with main entry, and traverse section (below) of hall and qibla.



Ground floor plan

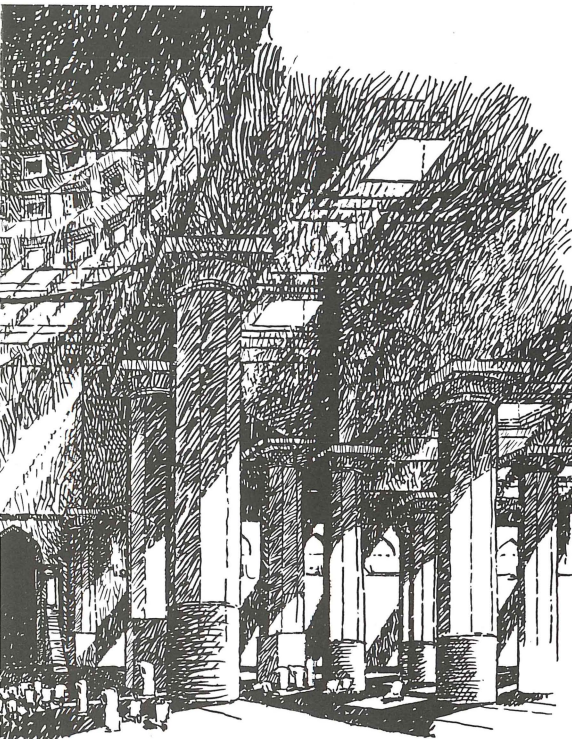


Longitudinal section of Mosque and cupola

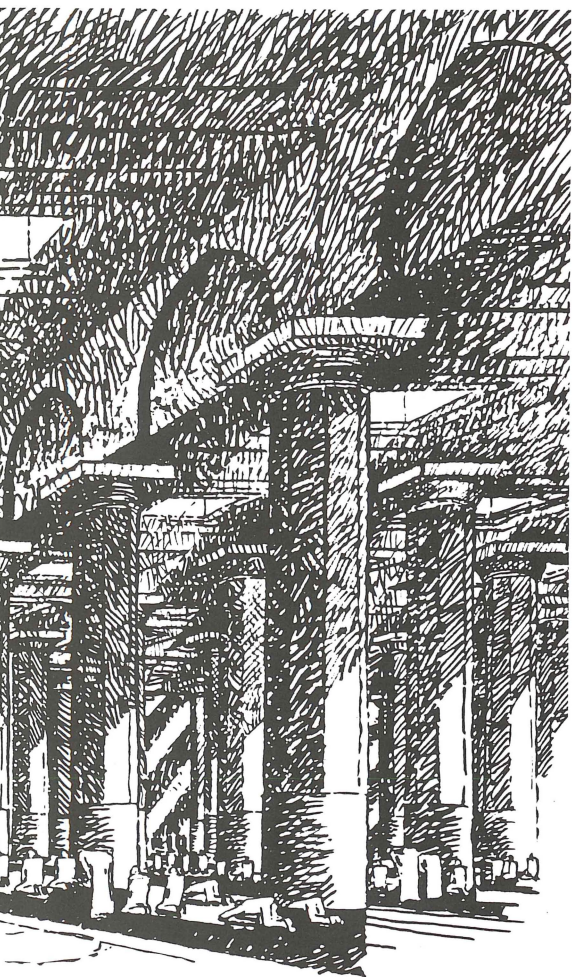


Interior perspective view towards qibla

Taller de Arquitectura/ Ricardo Bofill



w the cupola



The project concept, developed along the longitudinal axis to Makkha, is divided into two major functional parts: the State Mosque to the south, and the facility buildings to the north. These two parts are connected by a wall which surrounds them, forming a large paved and planted courtyard on whose cross axis are set the major pedestrian accesses from the car parks. This courtyard separates the paths of worshippers, who pass directly into the State Mosque courtyard, from the path of the visitors, who will cross the courtyard to enter one of the facility buildings.

The north/south axis is a series of tangible built elements. The east/west axis is a series of hierarchical vegetable-mineral gardens, which change in type of surface and context from one enclosure to another. Every enclosure has a different design and scale of wall and gate; the lowest point is found on the perimeter, rising to the highest point in the centre.

A brief description of the project must follow the axial concept, with the worshippers arriving on foot from central Baghdad, guided by the omnipresent sight of the great minaret and reaching a meeting place and refreshment area created in the park where the worshipper can rest and compose himself before commencing the processional path to the State Mosque. This place is a large esplanade cut out of a palm tree plantation with a bordering pergola to produce comfortable shaded areas around. From here the worshipper follows the paved path with irrigation channels alongside tracing the grid of the closely planted palm rows and emphasising the perspective towards the minaret.

This visual monument signals the location of the State Mosque and is quite unmistakable in its mass and form; the minaret also serves as a water tower supplying the entire site with its needs of cleansed water and also acts as the visual fountain source of the water running into the canal.

Some places further on, to the left and right of the minaret, are the facility buildings, conceived as a great opening gate into the outer area and treated as two identical volumes which are perpendicular to the central domed patios, and divided into different heights according to their function. One of these buildings is dedicated to study and a faculty centre and contains a library with a double-height reading room, an archive sorting, storage and consulting floor and two

floors of classrooms and meeting rooms with all necessary annex facilities.

The other building is similar to a hotel with apartments and includes a public dining area, hall and kitchens on the ground floor and a separated patio gallery type distribution of guest rooms above for visiting dignitaries. Thirty-six apartments are also provided for some staff members. Other residential quarters for maintenance, security and gardening personnel will be located in a planted square next to the site boundary.

The entire programme of design requirements, other than the State Mosque itself, has therefore been placed in these two identically treated volumes whose considerable height and mass act as a counter-balance to the form of the State Mosque and its symbolic entry way.

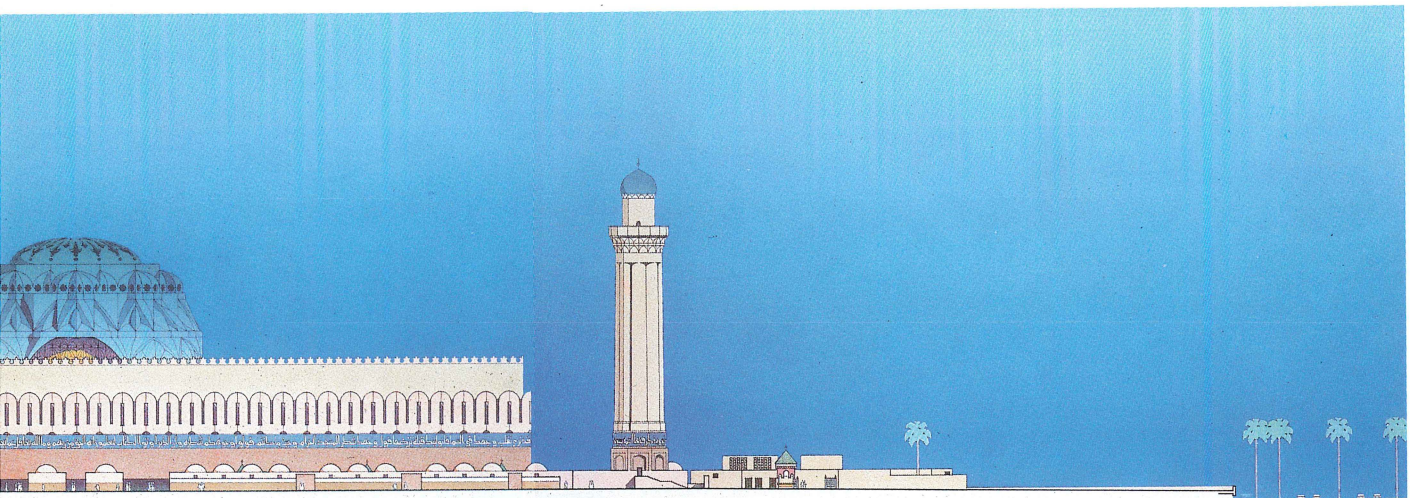
In front is the great gate and wall of the Mosque; on the sides, the surrounding walls are positioned well away from the walls of the Mosque to leave an architectural space.

This space allows the worshipper to enter the Mosque courtyard from the side. Advancing towards the main gate the worshipper arrives at the cross axis of the project, where gates to the east and west connect with the sunken garden walkways, and further on, at the perimeter to the car park or public transport set down points. Other worshippers will be coming along this cross axis and meet in the Esplanade in front of the gate with the canal and minaret directly behind.

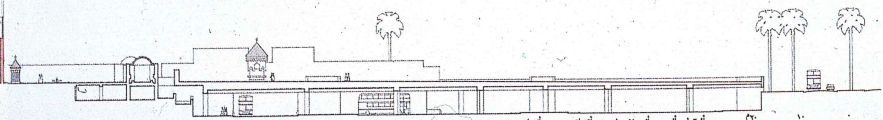
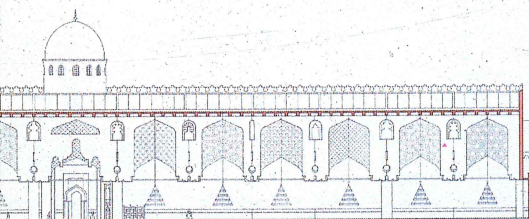
Passing through the massive triple doorway, which acts as the basic control barrier for the Mosque, the worshipper arrives in the great paved courtyard. Here, an elevated plain of moving water has been provided as the focal point. This is the foyer to the Mosque itself and here the worshipper will find everything needed to prepare himself before entry into the holy place.

The four sides of the courtyard are covered by a double-bayed arcade which form generously shaded walkways of a scale suitable for the great quantity of worshippers foreseen. In the northern arcade, the shops for selling religious artifacts and books, the baths and toilet areas, as well as the security premises, offices, etc., are grouped, together with raised areas for sitting, resting or reading.

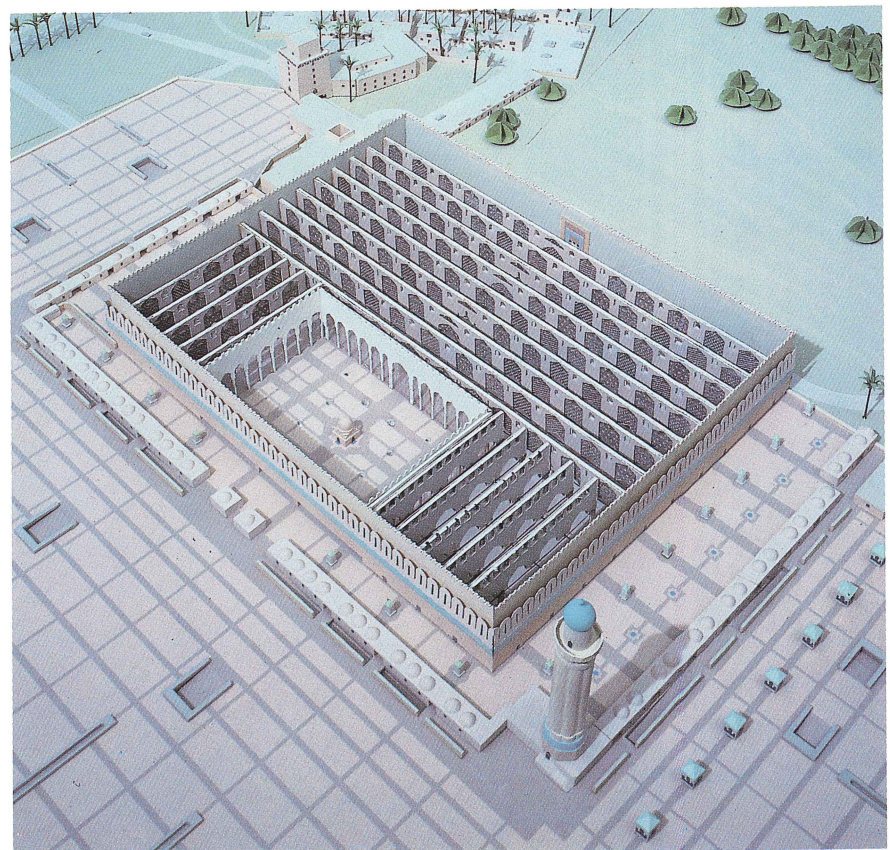
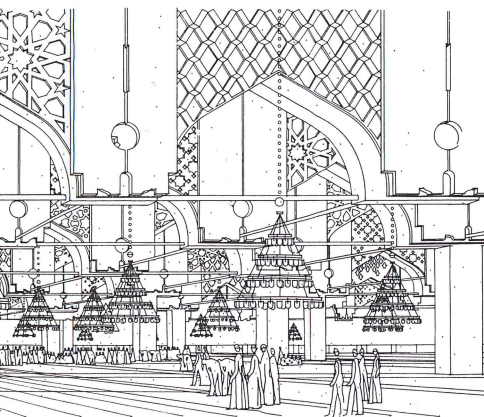
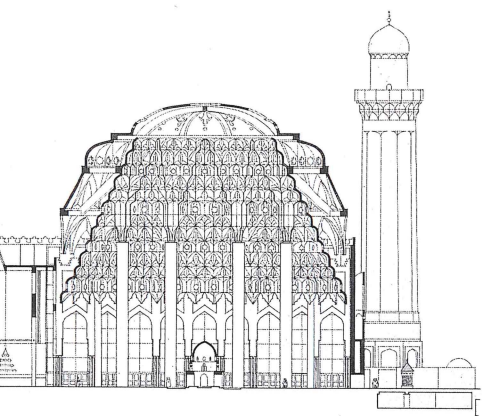
In the two side arcades, where discrete doorways are also positioned, the ablution fountains are provided in niches between the pilasters of each arcade bay. These water niches run the whole length



NORTH ELEVATION الواجهة الشمالية

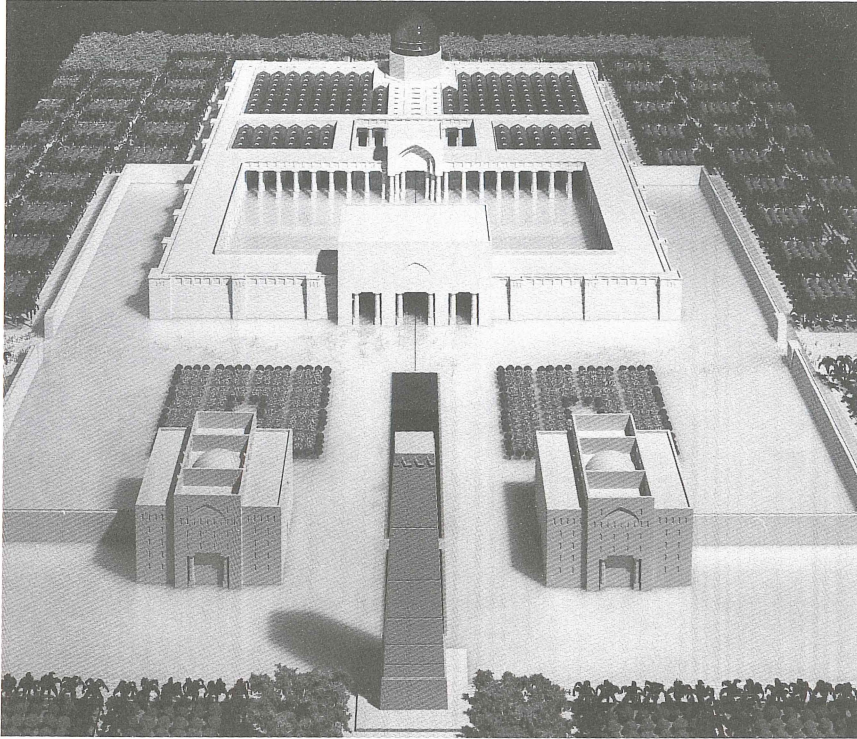


TRANSVERSE SECTION - TOWARDS QIBLA المقطع العرضي المحاذي لجدار القبلة - نحو القبلة

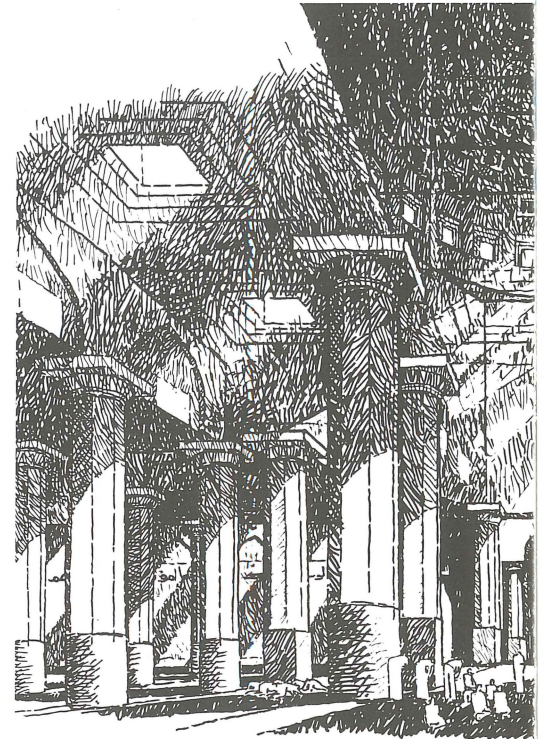


Axonometric view as seen without roof and domes

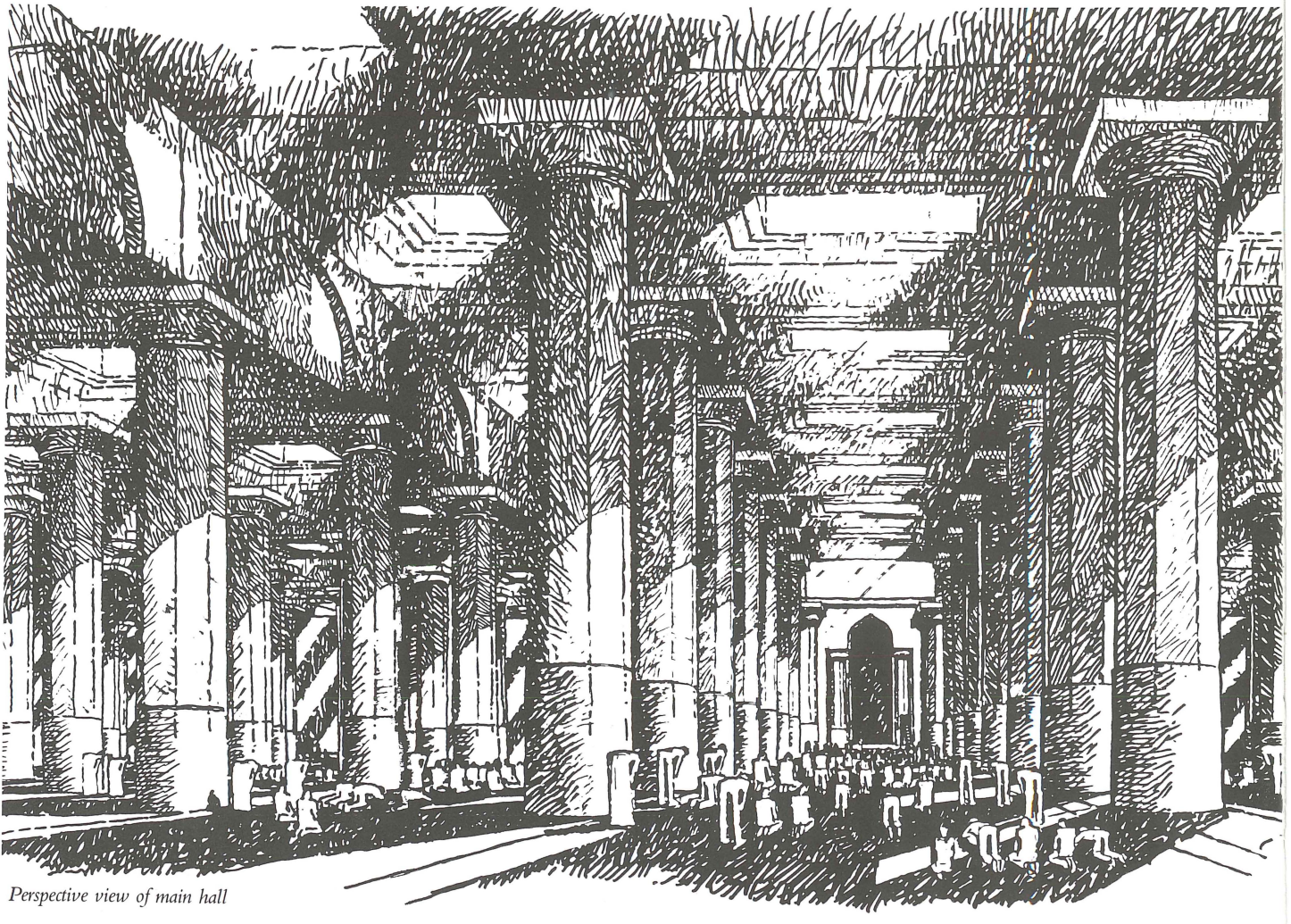
State Mosque, Baghdad



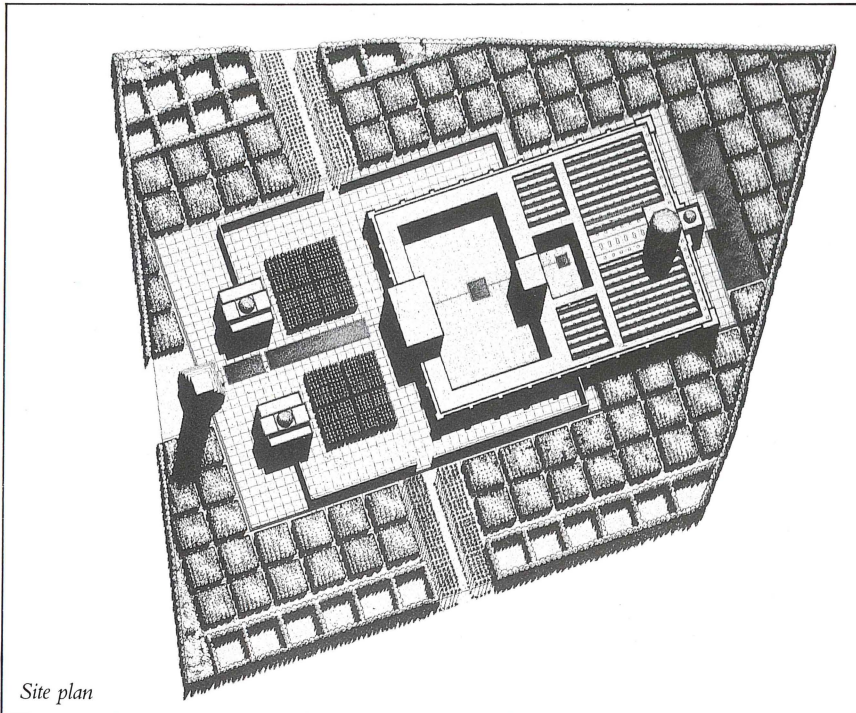
Model of mosque complex



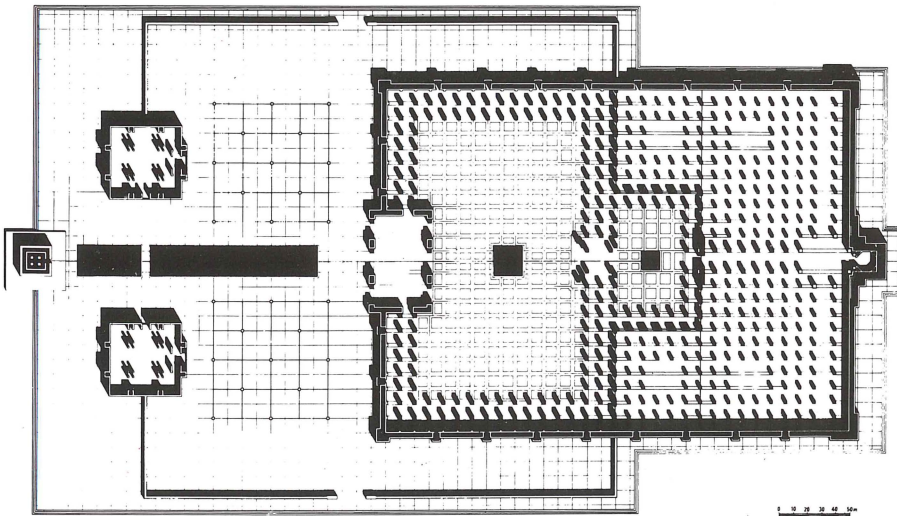
Perspective sketch of main prayer hall with qibla as seen from below



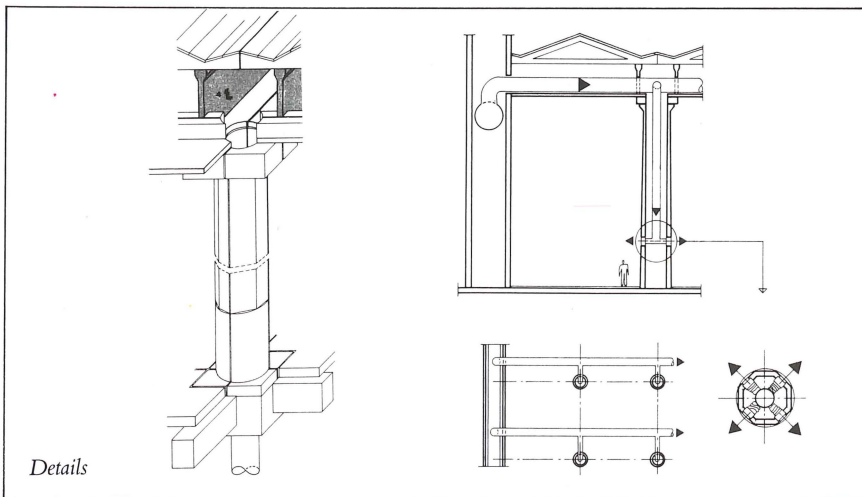
Perspective view of main hall



Site plan



Ground floor plan



Details

of the walls and act as a cooling device for the arcaded space, and fill the air with the murmur of moving water as well. Each niche shall have ten water spouts, which pour into the water basin located between pilasters with ten perches in front.

Taking into account the directional concept of the Mosque, which is made manifest by a continuous carpet between the bays in the direction of the *Qibla* wall, leaving the marble floor between columns exposed, the marble chips create a strong, broad white band every ten metres and are laid out towards Makkha. The worshipper will use the two bays of the arcade on the Mosque wall located between the *Sahn* and the open air prayer courtyard as the shoe drop-off area.

The interior of the Mosque, which comprises a great hall of columns and light, solids and voids, is divided into four fundamental spaces, which are positioned symmetrically around the axis created from the main door to the open air prayer courtyard, the Mosque doors and raised aisle leading to the single *cupola* and *Mihrab*.

The daily prayer area, which is closed off by movable lattice screens from the main prayer area, is located on one side of the open air prayer courtyard. On the other side, the female prayer area has been positioned with a fixed screen allowing female worshippers to appreciate the entire space of the hall visually and to perceive the upper part of the *Qibla* wall.

These two prayer areas, on each side of the axis, are accentuated by the raised roof of their centre bays. The entrance door, which is located on the arcade facade, is clearly discernable from the outer courtyard. Thus, there is one great hypostyle prayer hall for all activities which is divided into different areas.

The *Qibla* wall is lighted by a raised roof section of the same height as the central aisle which crosses at the *cupola*. The inner face of the outer walls are brick-lined and slightly inclined inwards to give a feeling of security and to support a frieze of carved calligraphy.

The *Mihrab*, set immediately below the *cupola*, is unlit and dark; an infinite space, which is in contrast to the strong light on the rest of the wall.

The *Mihrab* is expressed on the southern facade by a strong architectural volume which dominates the exterior. Behind this there is a large expanse of water set in the grid of the garden to keep the outside of the *Qibla* wall clean.

Shubeilat, Badran, Kailani

The competition for the design of the New State Mosque to be built in Baghdad presented an opportunity to reaffirm to the world, in today's terms, the principles upon which the tradition of the Arab Islamic Architecture is based. In their day the historic Arab Building availed themselves of the best that was known to them in contemporary science and engineering, and infused it with that unmistakable spirit which has come to us as the great architectural heritage as we know it today. With this project, we propose to re-examine the traditional forms of this architecture, and with the same fresh outlook and scientific spirit bring to these forms the best that is available to us in contemporary technical knowledge.

Our aim is to create an Arab Islamic complex: Unmistakably Iraqi, unmistakably contemporary, and understandable to everyone, educated and unsophisticated alike, from whatever part of the world he may come. If we can achieve this and if we can reinforce these traditional forms with a contemporary expression then we shall have lived up to the aspirations of the Great Arab builders of the past.

The "prototype" mosque-plan has been selected: rectangular prayer-hall and courtyard surrounded by *riwaq* (portico), as in classical examples of mosque planning (Kufa, Samarra, Cairawan, Cairo etc.).

In a typical Islamic town the houses do not necessarily follow the *qibla*-direction of the religious buildings. The mosque in our design distinguishes itself from the rest of the complex by a similar change of direction. The housing complex follows the borderline of the site.

The location of the complex on the site was determined by the *circle of existing trees* in the centre. This was understood to be a unique feature and used to indicate the main entrance to the Mosque. This circle also facilitates the transition from the direction of the existing row of trees to the *qibla*.

The ceremonial approach is in the main axis, lined by the existing alley of trees (not following the *qibla*) and by an artificial lake with a row of water-jets on the edge of a platform, somewhat reminiscent of Taj Mahal. The V.I.P. approach is from the opposite side, leading directly to the *maqsura*.

Passing through a palm grove the visitor perceives the Mosque surrounded by a protective earth-mound acting visually

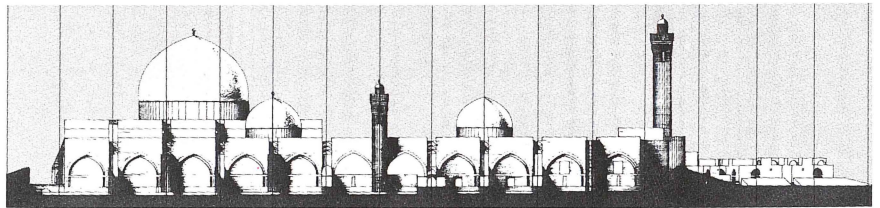
like a base of an ancient ziggurat (Agar Quf). The landscape recalls the serenity of the flat Iraqi countryside — date palms, orange trees and irrigation canals.

The Mosque is surrounded by a sloping mound containing places for ablutions. The gap between this and the mosque proper symbolises the transition from

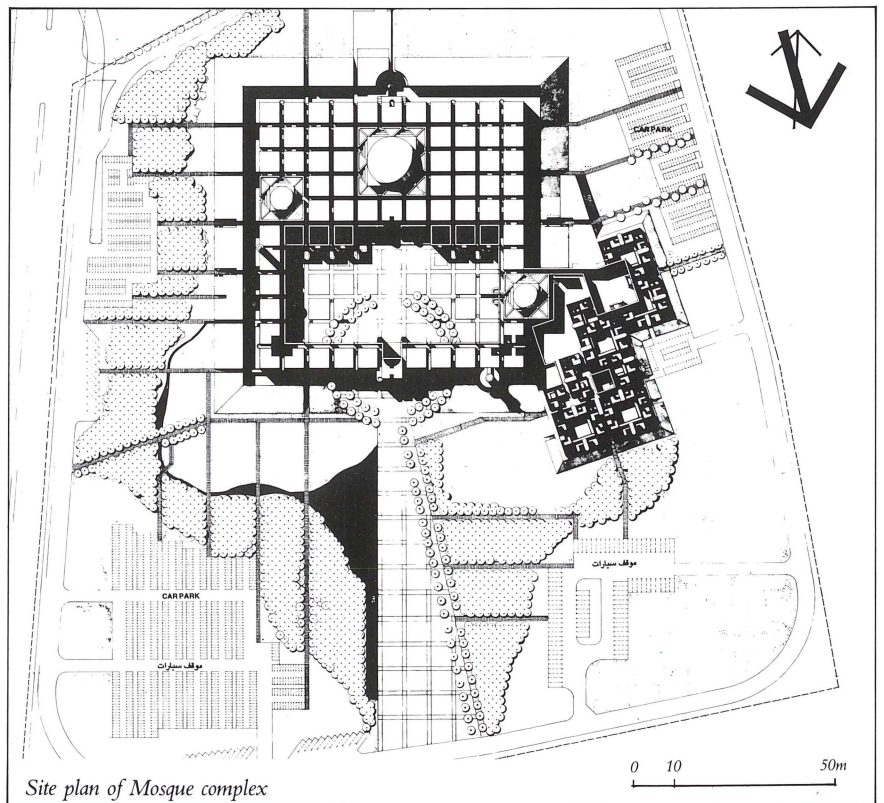
"mundane" to "spiritual". In a way it resembles the so called "ziyada" space of the Great Mosque of Samarra or Ibn Tulun in Cairo, with similar function.

The housing is located close to the border of the site and has direct access

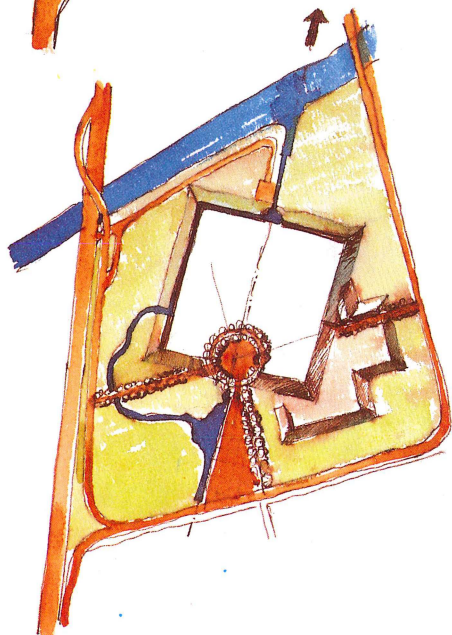
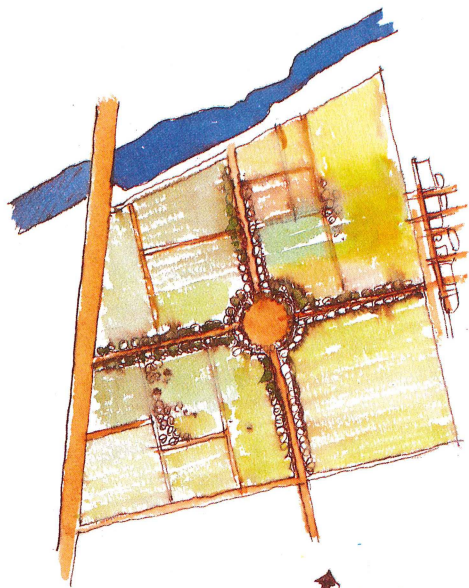
Model of Mosque as seen from the northeast



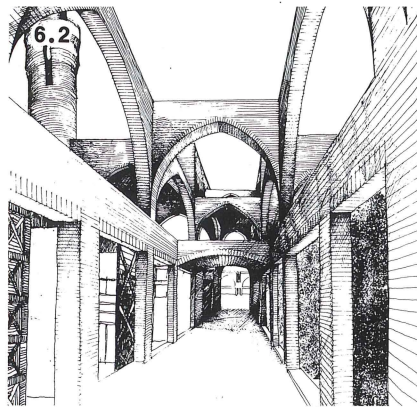
Transverse section



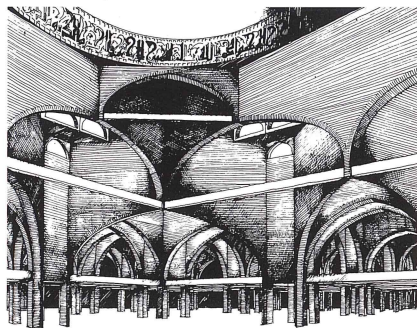
Site plan of Mosque complex



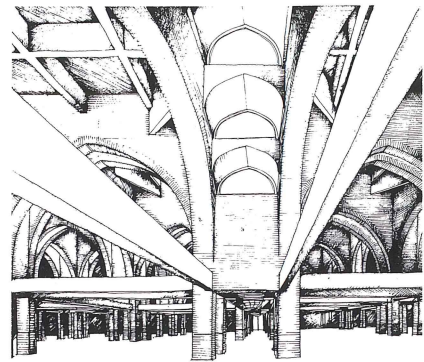
Sketch of site development for Mosque location



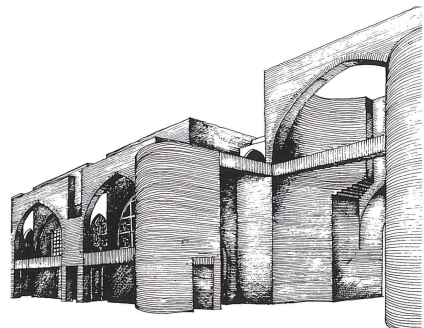
Selling arcade



Prayer hall seen from under the dome



Interior of prayer hall



Main entrance from inside the courtyard

from the peripheral road as well as from the mosque proper. Its character reflects the traditional *Islamic courtyard-house*. The whole group resembles an Iraqi village behind the protective flood-dike.

The *clustered four columns* reduce the massive feeling of a huge, single pier, as it would be required for the suggested large span. These columns evoke the four corner colonnades of the brick piers in the Great Mosque of Samarra or Ibn Tulun in Cairo, a typical feature of the Abbasid period.

The *tie-beams and the sequence of double arches* echo the “democratic” space of some early mosques (Amr Ibn al-Ass in Fustat). The identical, repetitive bays symbolise the equality of men in front of God. The tie-beams create a transparent low ceiling related to human scale.

The *stepped windows* between the pairs of arches provide daylight in the prayer-hall the same way as the stepped windows in the ingenious structure of the Khan Marjan in Baghdad. The light comes down in an unobtrusive, indirect and filtered way. In the peripheral wall there are only narrow slits.

The zone of transition of the dome reflects the traditional *muqarnas squinch* of Islamic architecture, which is probably its most unique contribution to the history of architecture. Early examples are found

in Samarra (Imam Dur) and Baghdad (Abbasid palace) but *muqarnas* soon became a common feature.

The consistent *use of brick* is in keeping with the Iraqi tradition and so is the “defensive” look of the exterior (Samarra, Ukhaidhir). The slit-arches in the walls have the typical Iraqi four-centered shape which was invented during the Abbasid period (Baghdad Gate in Raqqa).

The *gateways* are in detail based on the typical *muqarnas* porch of Islamic architecture (Ayyubid and Mamluk porticoes in Cairo, Damascus, Jerusalem). The application is, however, modern and is derived from bricklaying. The flanking towers are a typical Iraqi feature (Ukhaidhir, Atshan).

The *minaret* is of the *cylindrical Iraqi type*, as could be seen in the Khulafa mosque in Baghdad, in Kifl and many other places. The round balcony is supported by simplified *muqarnas*, the four slits in the balcony are meant for the loudspeakers and reflect the square grid of the Mosque.

The *dome* rests on a brick drum and the suggested facing reflects the two traditional approaches of Iraqi architecture: *gold-plating and glazed ceramic*. The top (of unmistakably Islamic shape) is faced by turquoise ceramic mosaic, separated from the brick drum by a golden strip.

The project for the Grand State Mosque in Baghdad, is considered the most significant project in the history of Mesopotamia. We thank the responsible officials for their generosity for inviting us to participate in this competition. This project is regarded as a unique historical opportunity and a significant architectural event of far-reaching influence which provides a revival of awareness of the heritage, emphasising the historical and cultural importance of the city of Baghdad as the capital of the Abbasid civilisation.

A serious and original attempt has been initiated to conceive an overall idea for the Grand State Mosque. The design is based on the principal of a continuity of tradition in an essential way linking both historical and cultural identity. This is made with reference to forty years of study and experience of the heritage of the 1400 years of Islamic civilisation, and the period preceding it, as the background for the civilisation that flourished in Mesopotamia.

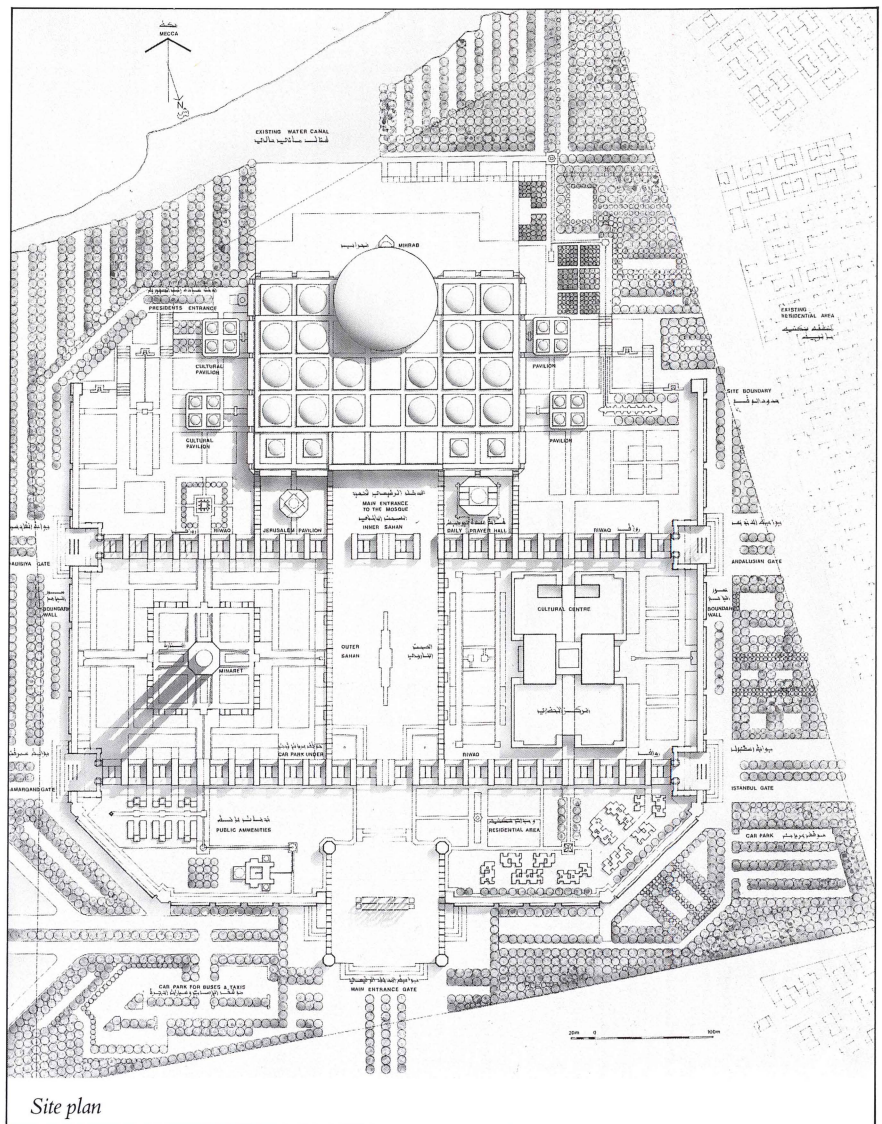
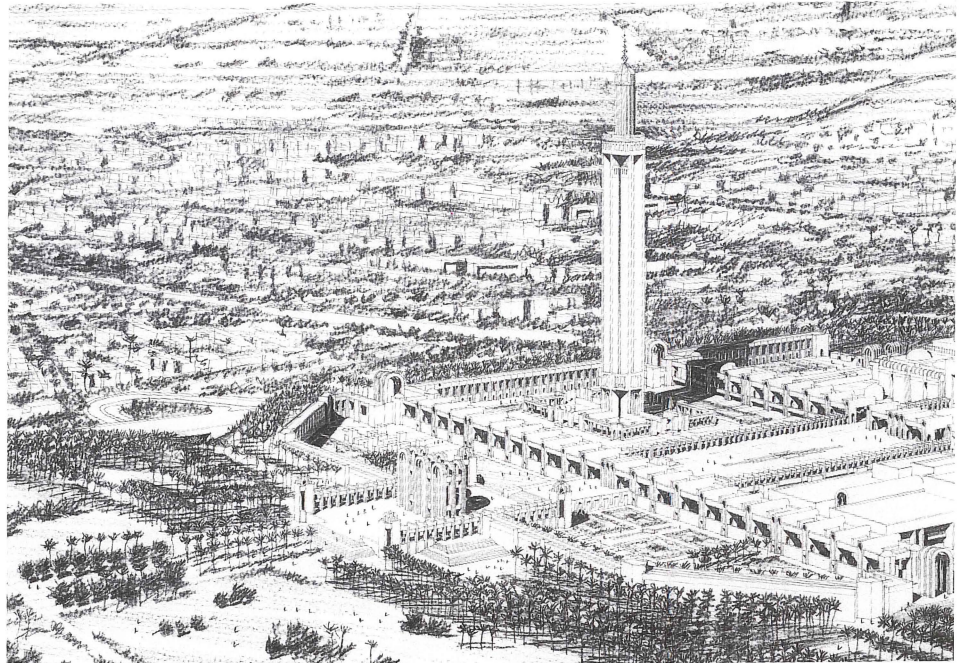
The following are the foundations of the design concept:

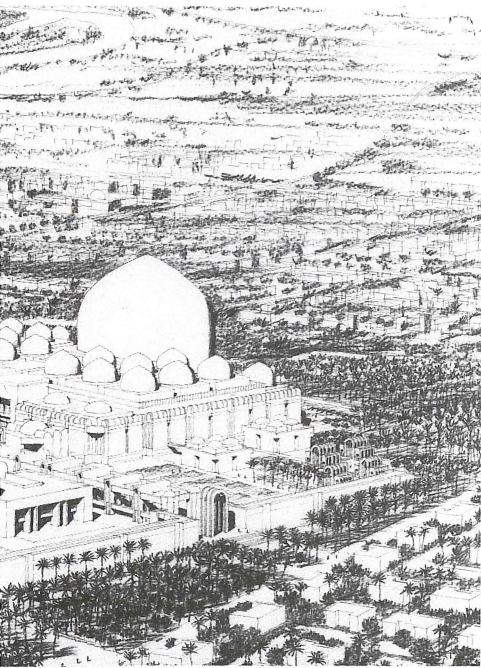
- The city of Baghdad as a centre of science and arts of the Arab Islamic civilisation, and its historical, cultural and geographical importance. The Mosque emerges as a symbol of the city, an artistic monument, and a geographical reference point in the skyline. It creates a powerful new axis within the structure of the city, casting light on new planning criteria based upon the positive evaluation of the heritage and infrastructure of the traditional Arab Islamic city. Furthermore, the design takes into consideration the sensitivity and integration with the environment of Baghdad, surpassing modern theories of planning, and indicating an alternative direction to the planning of the city.

The project assumes a further dimension as the congregational Mosque, appropriate to the historical scale of Baghdad with the attraction found in the great Islamic centres.

The Mosque stands as a symbol of the faith and unity of Baghdad and is identified with the magic, fantasy and mythology of 1001 Nights and as the golden city of Harun Al-Rashid.

- The proposed location situated at a close distance from the western gate of the circular city of Al-Mansour is regarded as a successful and unique choice that can achieve planning aspirations of

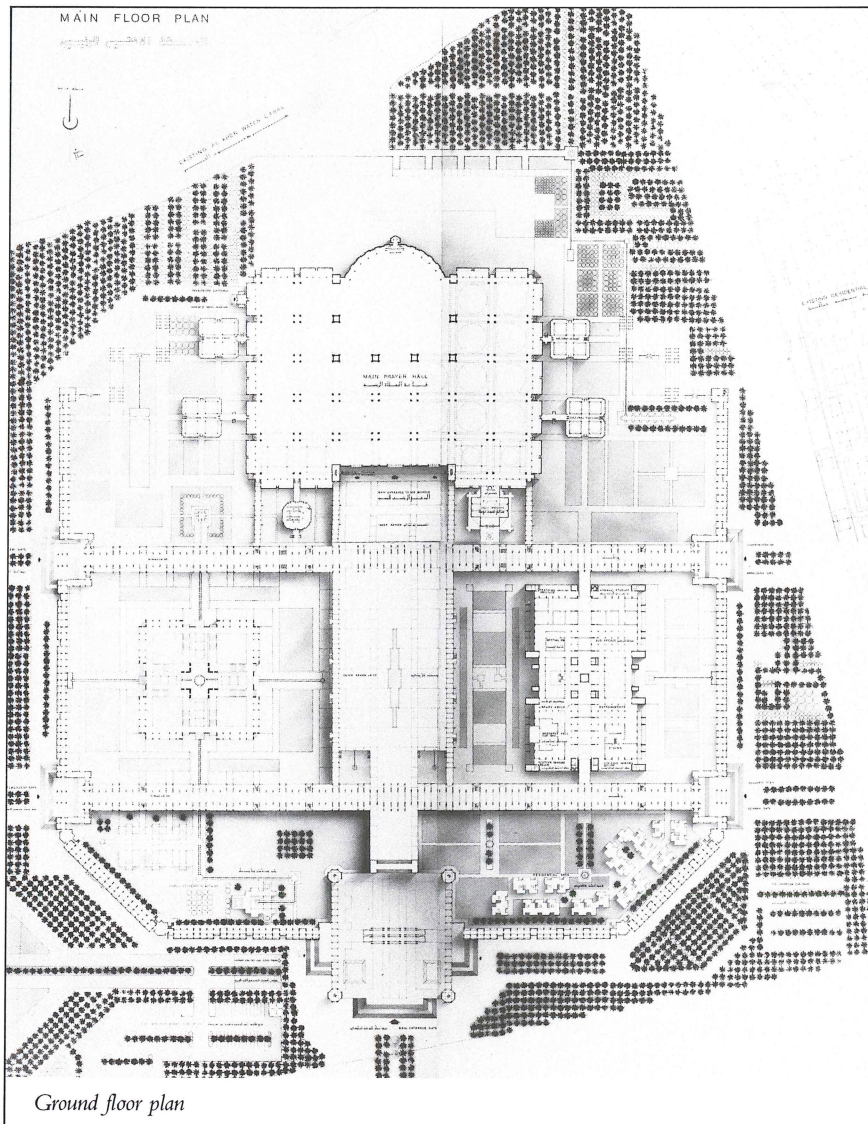




significance for greater Baghdad. The location of the project is also seen as a nucleus for the district, as well as its relationship with the city as a whole. The design also takes into account the topography of the site, and incorporates the canal as an important element. The process of design takes into consideration the total integration of the planning of the site and the detail design of the Mosque, with enclosed, semi-open, and exterior spaces linked organically in an overall spatial system. The design affords an actual and visual extension of the interior spaces through gardens, palm groves, plazas, arcades, and courts.

The design considers the location of the project in its entirety, as a new district complex where religious, social, cultural and popular activities are inte-

Left: Perspective rendering of Mosque complex.



Ground floor plan

grated creating a genuine Baghdadi atmosphere.

- The architectural elements of the Grand Mosque reflect the geometric, architectural and artistic scale expressing the idea of unity and represents an axis for the faithful and a cultural pillar within the Arab Islamic world.

The prayer hall as the most prominent building mass accommodates thirty thousand people, within an area of twenty-six thousand square metres. Twenty domes, each with a diameter of twenty-five metres are used to roof the prayer hall as a powerful formal element.

The main dome situated on the principal axis rises to a height of ninety-five metres, with a diameter of over ninety metres.

The exterior drum of the main dome descends without transition to the lake of Al-Buhtouri which is an extension of the canal, expressing the unity that symbolises heaven and earth.

The minaret is composed in relation to the scale of the mosque and the city as a whole. It rises to a height of two hundred and forty metres forming a monument with a powerful vertical axis. As such it becomes a spiritual, visual and cultural symbol expressed on the skyline of the city of Baghdad. The external lifts of the minaret are made of glass, providing visual enjoyment of the magnificent views over the capital.

The general layout of the development is such that further refinement and enrichment is possible. Four cultural pavilions can receive temporary and permanent exhibitions of art and craftwork from the four regions of the Islamic world.

The walls below the *riwaqs* and adjacent to the boundary wall can also receive enrichment of ceramic and calligraphic designs in the years to come. The geometric composition of the development also affords flexibility to meet future requirements of the citizens of Baghdad providing a dynamic concept to the design.

The consultants have sought to achieve a significant piece of design on a scale appropriate to the symbolic status that a Grand State Mosque of Iraq demands. A new renaissance is taking place socially and culturally. A new Baghdad is rising that inherits the mantle of the civic status of Babylon, the dignity of the city of Al-Mansour, and the glory of the golden city of Harun Al-Rashid.

The mosque as a sanctuary is the realisation of its meaning. The following functions determine the design of the Mosque.

The whole Mosque is an area of worship. Yet, ritual praying needs special and well defined spaces which differ from the general environment of the complex.

In this sense the whole complex serves the preparation for prayer and the worshipping community. The architectural design and its details reflect the basic pillars of the belief which are:

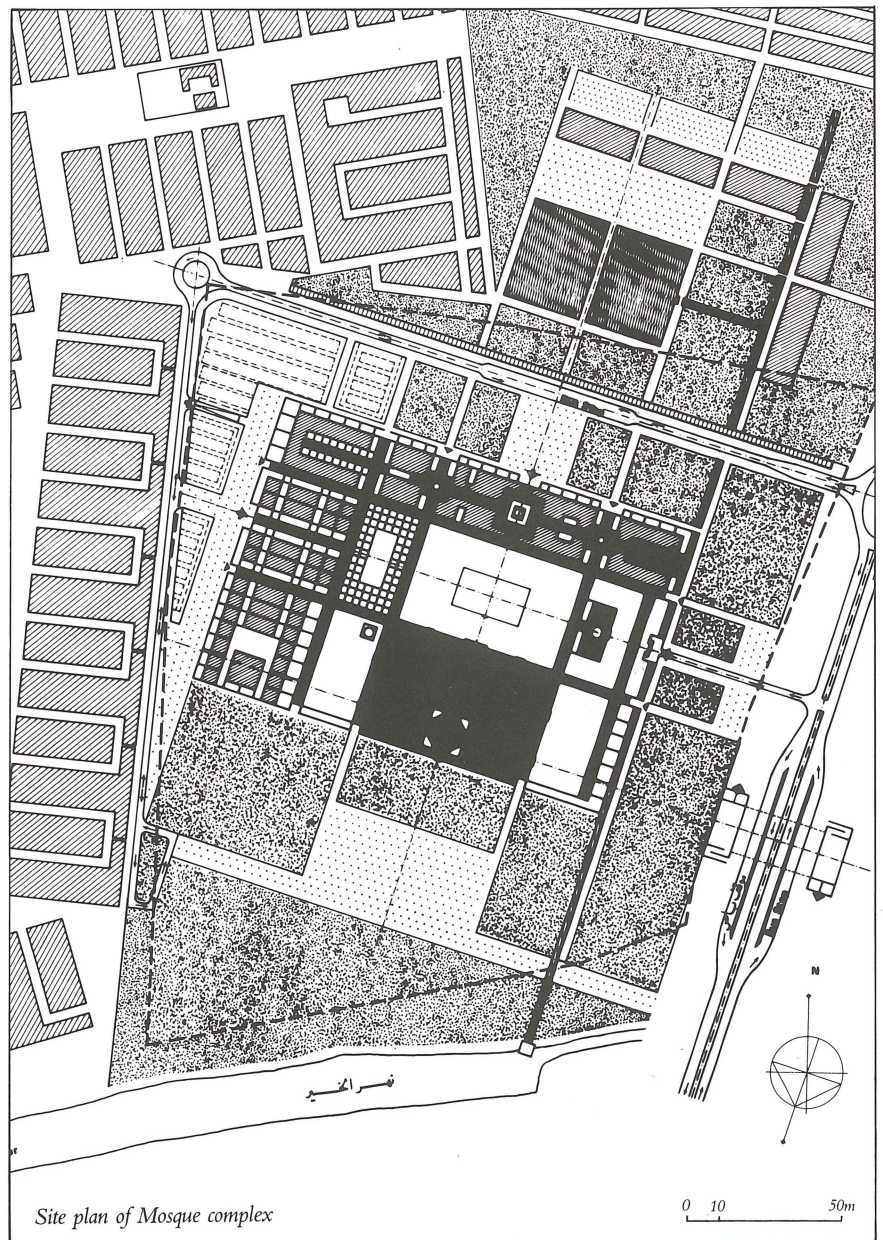
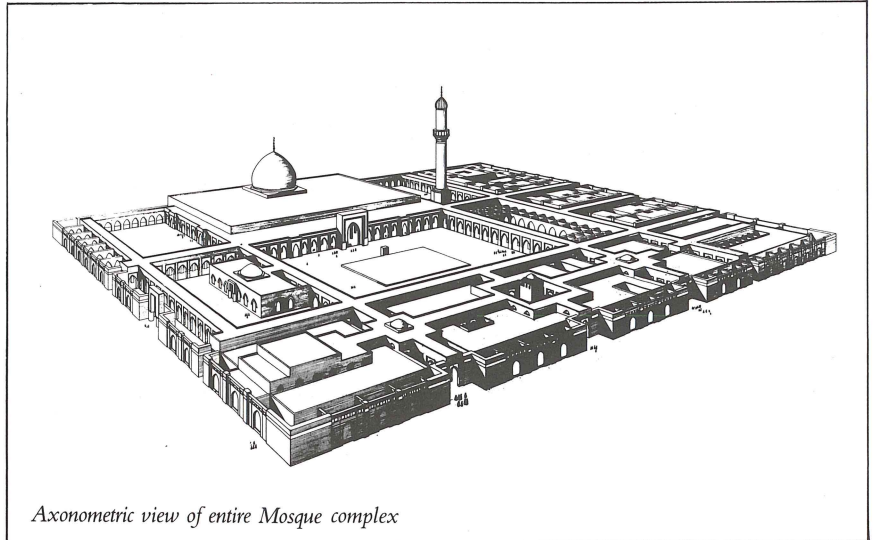
- Oneness of Almighty Allah
- Equality of all worshippers
- Solidarity of all Muslims

Praying in a group according to the Shari'a and the Sunna of the Prophet Mohammad requires discipline and order. The praying formation of solid rows facing the *mihrab* wall signifies two crucial doctrines of Islam: Equality and Solidarity of all worshipping muslims regardless of origin or social state.

The architectural form and details of the design reflect the basic fact in confining the practice of ritual worship to the Haram. The devotional contemplation and purity of the mind in the Haram is induced by passages from the Holy Qur'an, and the names of Almighty God that are inscribed on the interior walls. An atmosphere of piety and tranquility is thus inspired by this environment.

The recurrence of the prescribed prayers is reflected in the repetition of basis architectural features; this fact enables the worshipper to identify himself with the given environment. The relation between the worshipper and this environment is in this sense a spiritual and total one. It is a monologue irrespective of the size of the building or the time of the event, especially as it did not develop out of any strict architectural rule related to religious dogma but out of certain principles of worship. With this basic perspective, the principles of mosque design were adopted and transformed by other cultures according to their needs. In this way the tolerance of Islam manifests itself in the various types of indigenous Islamic architecture which display unity in spite of their diversity.

The Abbasid era is an example of how one culture developed and how it became a prime influence in the Muslim world, thus, establishing the basis of Arab Islamic architecture. We consider the Iraqi Abbasid's aesthetic and architectural values the main source of inspiration in the design concept of the State Mosque.



The following design criteria of the project result from our understanding of, and the inferences drawn from the above displayed general notions:

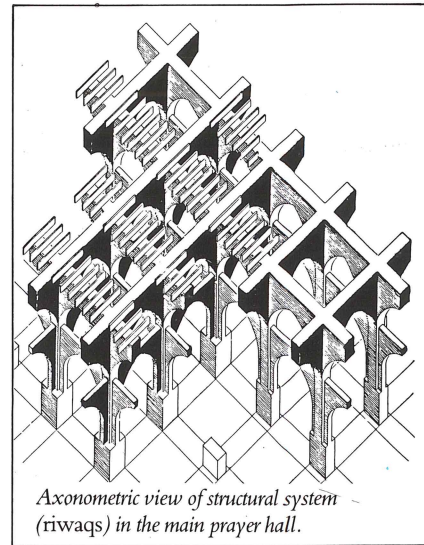
- Formal and structural unity
- Balance between the various components and parts
- Repetition of basic architectural features and elements

While the balance of the various parts signifies the equality and equality of all worshippers, the repetition of basic architectural features emphasises the recurrence of worshipping the One God. The solidity of brick walls symbolises the solidarity of the praying community.

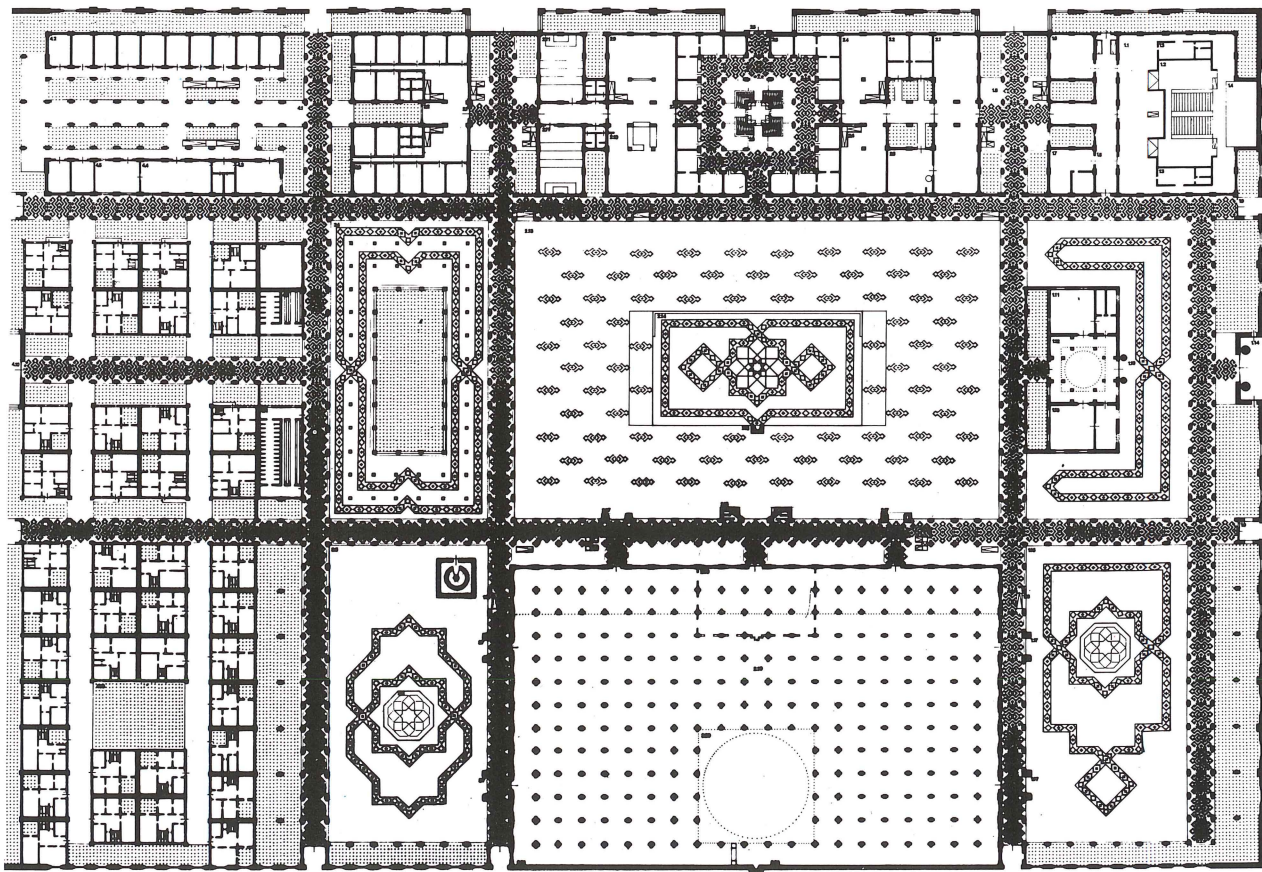
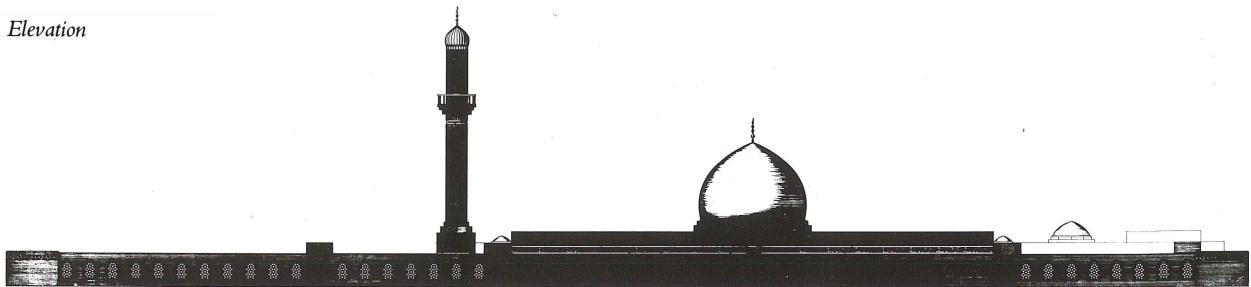
Contemporary Islamic architecture should synthesise these inherited traditions — Islamic design principles and aes-

thetic values with modern technology — to fulfil the needs of our age without compromising the traditional identity or culture.

These now, are some advantages of the traditional geometric method of design which is based on an “open system”. It accommodates new ideas to the traditional spirit, thus establishing a unity amongst the various traditional artistic expressions of the Muslim world. Islamic architecture, therefore, necessitates traditional ordering principles in design so that the whole and the parts of a composition achieves total harmony. This concurs with the Muslim belief that the whole universe is ordained to follow the divine laws and order.



Elevation



Ground floor plan, adjacent courtyards and buildings

0 5 10m

Kahtan Al-Madfai

We have tried to draw a clear distinction between Arabic and non Arabic iconography as expressed in mosque architecture. Arabic iconography is stamped with the eternal influence of the desert; this creates a unified Arabic/Islamic source of iconographic elements clearly distinguished from any other source.

Sources of inspiration:

- The revivalism of Islamic heritage.
- The universality of Islamic doctrines of mosque design and building.
- The Arabic roots in the Islamic tradition.

The measuring criterion for the design and its elements, therefore, could be summed up in the doctrine: "Arabic roots of the Islamic doctrines of mosque design."

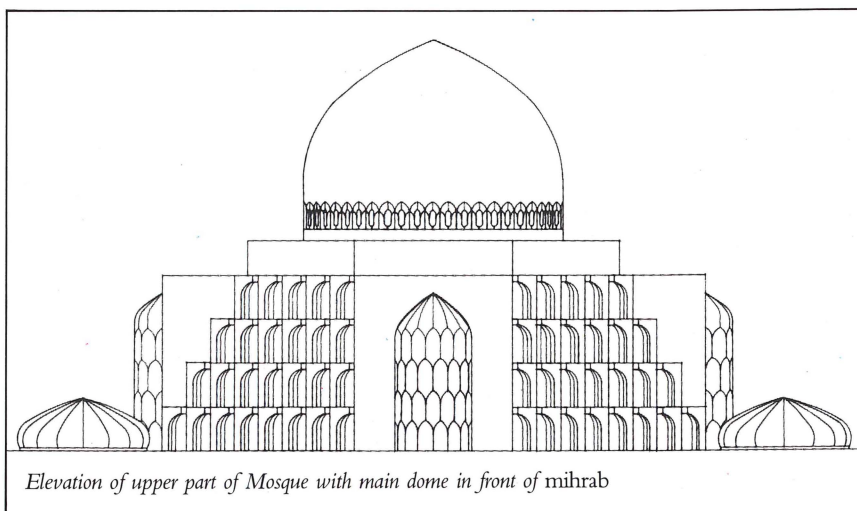
Basic assumptions for the architectural language:

- The State is the defender of the Faith.
- A direct lineage of heritage to the Islamic Arabic root of great mosque design.
- The use of most advanced methods in spatial distribution and construction.

A deliberate modelling of the working of the mosque on the Masjid al Jami of early Arabic traditions. Just as the Arabs of the early Islamic period readily adapted their concepts of mosque architecture in the light of experience, so we have sought to define the characteristics of a modern State Mosque of manifold functions within an urban environment of continuous change.

The integration of the various elements was a prime aim, e.g.

- The influence of the desert environment on motifs and details.
- The motif of the palm-tree and the



palm-tree domes in the centre of individual Masjids.

- The traditional association of numerology and proportions used in controlling the planning and the spatial distribution.

The directional space in the mosque represents, symbolically, the cosmic space connecting the worshipper to Makkha. In physical terms, this directional space need not exist for it is a direction marked on a mental map in the worshipper's mind. Muslim prayer, then, begins with the very intention to pray; orientating oneself towards Makkha is the second step.

Expressed in elevation, the natural culmination of the square in Islamic architecture is the dome. Awareness of that dome is already implicit at the base of the square; the pendentive starts early in the spatial arrangement. The Islamic approach displays a totality of vision; the dome is implicit in the square itself.

Quick egress of the worshippers from

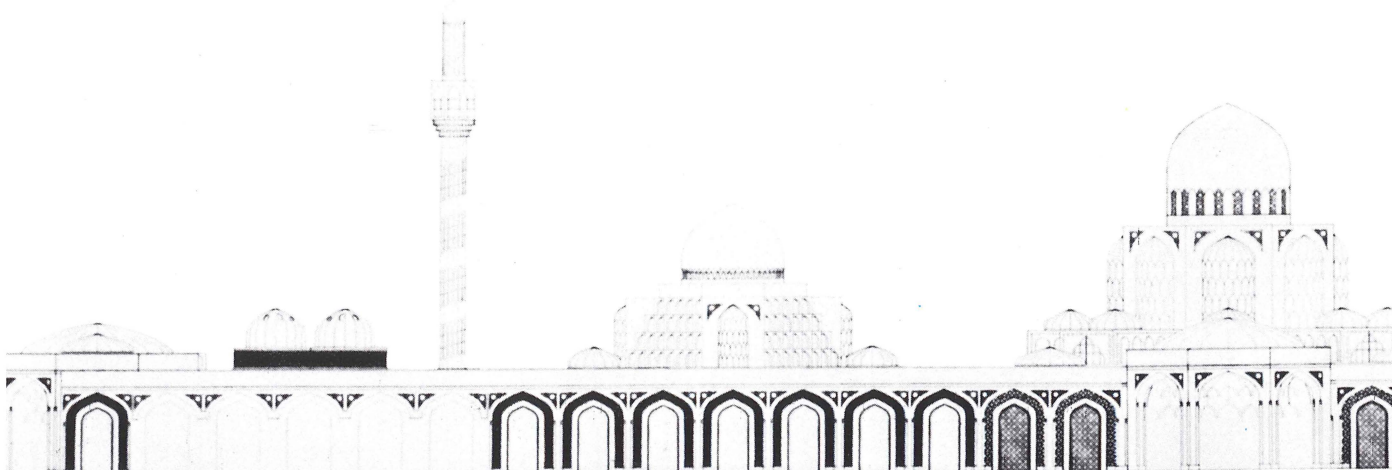
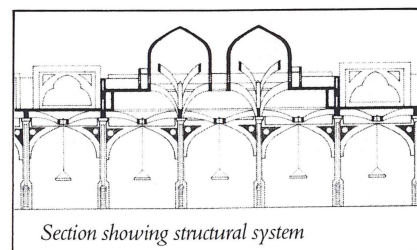
the enclosed area to outside the limits of the site was achieved by:

- 40 metre × 40 metre planning grid.
- By the use of 8 metre wide avenues flanking the grid.

These dimensions determined the span of the arch with a 10 metre height.

The proportion of four-fifths is regarded by us to be a monumental proportion in preference to the golden proportion.

The great dome over the *mihrab* represents a purely religious function while the second dome dominating the *sahan* symbolises the transition from sacred to secular worlds.



Section through prayer hall

