Although the core of Dar al-Athar al-Islamiyyah is an extensive and comprehensive collection of Islamic art ranging from Early Islam to the 18th century, a variety of scholarly and artistic activities revolve around this collection, each requiring a broad and intensive background in Islamic history. The collection itself is organized according to both historical period and geographical region. The reference library and the publications of the Dar are closely related to the collection. The Dar has sponsored archaeological excavations in Upper Egypt that date to the Fatimid period. The art school associated with the Dar promoted (before the invasion) skills in the various artistic genres that are represented in the collection. The yearly lecture series, which has been revived, is a focal point for historians and other specialists, since it features talks by prominent international scholars on various topics of Islamic history, culture, and art.
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"The Story of My Favourite Object"

by Hussah Sabah Salim al-Sabah
Director, Dar al-Athar al-Islamiyyah

The following is a summary of a talk given by Sheikha Hussah al-Sabah as part of a special programme arranged by Dar al-Athar al-Islamiyyah (DAI) in order to highlight its masterpieces that were either damaged or destroyed during the Iraqi occupation of Kuwait. Entitled "My Favourite Object," it was given at the British Council in Kuwait on 8th February, 1994.

The favourite piece in question was a door, actually a pair of 14th century wooden doors from Fez. They had been the focal point of the Ayyubid Hall in DAI before the Iraqi aggression against Kuwait took place. They were reduced to ashes in the unjustifiable arson that destroyed all the galleries, offices, auditorium, and library of Kuwait’s Islamic Art Museum during the Iraqi army’s final hours in Kuwait. Too large and heavy to be looted, they had been left behind in the first days of the occupation when most of the collection was crudely loaded onto trucks and roughly transported to Baghdad.

"The Door of the Dar"

The pair of doors was made in the same paneling technique as that of the Moroccan minbar, although later. To ascertain an exact time, it is necessary to review the architectural history of Fez, where several examples can be found. A similar door in Abu Ananiya School, identical in size, decoration, and inscription, exists. Not only was this door made at almost exactly the same period the school was built, but also there is an abundance of corresponding geometric and calligraphic decorations on the school walls. All of this supports the conclusion that the Dar al-Athar al-Islamiyyah door was made in approximately the same period the school was built.

Ascribing the making of the door to a later period is a remote possibility. The more probable assumption would place the production date in the 14th century, specifically during the Merinid period (1248-1328). A study of the naskhi and the kufi inscriptions on the door further substantiates this theory, as they are executed in the prevalent style of the same period in which the house containing the door was constructed. The decorative vocabulary of the door under discussion bears strong resemblance to that found not in al-Magreb but rather in Andalusia, especially the Alhambra palace in Granada.

Mention must also be made of a wooden cupola, in the collection of the Berlin Museum of Art and History, which contains decorations identical to those on the door. Of particular interest is the star pattern rendered in a style analogous to that of the upper section of the DAI door. The difference is in the number of angles of the decorative units.

The Uniqueness of the Door

This pair of doors was built from heavy timbre. Mortised, tenoned and pegged, they were decorated with inscriptions and polished. At a height of 433 cm., this pair of doors was impressive.

The first front of the door was inscribed with the 255th verse of Surah al-Baqarah from the Holy Qur’an. A frequently used Kufic inscription, “Good Fortune and Success and Good Company” adorned the rims of its back. The rims of the second front are also inscribed with verses (285 and 286) from the same Qur’anic chapter, in Naskhi script. On both fronts, a Kufic inscription is carved in the rims of the small ‘door-within-a-door.’ It reads: “God is the Best of Protectors and He is the Most Merciful of the Merciful.”

After outlining the history of the city of Fez, in which such doors were made, the speaker began to explain the traditional paneling technique which was applied for the rendering of these doors. It includes the special technique used in the Islamic world of elaborately mitred and rabatted strapworks. This kind of singular artistic structure was developed first in the 11th century. Nevertheless, such doors exhibiting this technique are rare; the only similar item on which information exists was the Minbar of Badr al-Jamali in al-Haram al-Khali, Palestine.

The available information from al-Maghreb concerning the application of this technique was found in a minbar, executed in the same mitring and rabbiting style, in al-Kutubiah School in Marrakesh. Historical sources state that this minbar was commissioned by a Moravid prince in Andalusia, but that it was not finished until after the Almoravids took over. It was then transported to Marrakesh, where it was preserved bearing a manufacturing date from the 12th century.
Finding the Door

The following is a brief account of how the door, once the most popular item on display in DAI, was found, purchased, stolen, and finally transported to Dar ar-\n\n\nIslamic Foundation.

“We came across this rare and beautiful treasure after a long but exciting stroll through the narrow streets of Fez, or rather, al-Bessa (ancient!). It was standing there, before us, in almost a derelict house, too splendid to belong to the time of our visit. A deal was made with the owner without a single moment of hesitation. When we returned to the hotel, we were tongue-tied with wonderment to find it laying in the spacious lobby of the hotel, surrounded by a large group of curious people. Their faces were as overwhelmed as our own with wonder, admiration, and inquiry. We were, however, not aware of the climax awaiting us, for among this crowd there happened to be members of the Moroccan Archaeological Board. Upon recognizing us, they started to accuse us not only of “stealing”(?) the door but also of decomposing buildings of specifically archaeological value in Morocco! They claimed the door as evidence to that accusation.

“After strenuous arguments, we were able to convince them of the truth. The door had been bought legally and for the simple reason that we appreciated its historical and aesthetic merit. We made it clear to them that we intended to make it the “Door” of Dar al-Athar al-Islamiyyah, an Islamic Art Museum in a Muslim country. We also pointed out to them that the door was never dismantled, as it lay in a derelict house. Our main intention was to preserve it as tangible evidence of Moroccan craftsmanship.”

In Kuwait, at last!

The speaker continued her narrative.

“Our favourite object remained in Rabat until the convening of the 1982 Arab Summit meeting in Fez. A member of the delegation accompanying His Highness the Emir of the State of Kuwait was Mr. Abdullaatif al-Hamed, then Minister of Finance. As an acknowledged connoisseur who appreciates fully the cultural importance of art objects, Mr. al-Hamed requested the Moroccan authorities to allow us to take the door out of the country and to its new home in Kuwait. The Moroccan authorities graciously and perceptively consented to the request and expressed admiration that there were people in Kuwait enthusiastic in promoting Islamic artefacts to the world in a scholarly method employing modern international documentation systems.

“We took immediate action and arranged for carrying the door from our residence in Rabat to Fez, so that it could be lodged on board the jumbo jet of H.H. the Emir. Unfortunately, the well-known Arab controversies erupted during the summit, and delegations returned home before scheduled dates. The door, once more, had the sad misfortune to lay in desolation; it was too large to be carried on board any other type of aeroplane.

Relief came at last, but only after strenuous efforts. An Air France Jumbo carried it from Rabat to Orly Airport in Paris, where it was transferred to a Kuwaiti plane and flown to Kuwait.”

Thus this rare masterpiece of traditional Islamic art settled at last long in the Ayyubid Hall of DAI. A highly qualified conservator flew from London to Kuwait for the sole purpose of restoring it on site. For the seven years that this six hundred year old door was on display in the Dar, it was one of the favourite pieces viewed by the thousands of visitors to the museums. Groups of children on school trips were attracted by its overpowering size and its intriguing little doors within the larger pair. The intricate patterns and calligraphy that decorated it drew both scholars and laymen to view it more than once.

Sadly, the interesting story of this favourite piece has an unhappy ending.

When Sheikha Husah had completed her talk, she had given so much time to a detailed history, description, and analysis of the door that she neglected to mention its fate. During the question period that follows such lectures as routine, a member of the audience asked what had become of the door. She replied simply that it had been totally destroyed in the fire. A gasp went out within the audience, an uncharacteristic event in a lecture about a piece of art. The audience was aware that a fire had been set in the Islamic Art Museum by the fleeing Iraqi army that gutted the galleries of DAI, but most had assumed that the door was with other property of the Dar that had been taken to Baghdad. Some members of the audience were familiar with the door, others had hoped to see it. A few long moments of shocked silence ensued, and no more questions were asked.
The Overseas Business of the Dutch

On 19th February, 1993 DAI hosted, in collaboration with the Embassy of the Netherlands in Kuwait, an exhibition entitled "The Overseas Business of the Dutch". The accompanying brochure to the exhibition reads as the following.

From the age of the Dutch East and West India Companies to the present, thanks to its favourable position at the mouth of three of Europe's great rivers, the Rhine, the Maas and the Scheldt, at the hub of major international transport routes, the Netherlands has become one of the world's leading trading nations. Goods from all over the world are traded and distributed from and through the Netherlands.

During the 17th and 18th centuries, Amsterdam was the world's leading trading port and, indeed, financial centre. Imported goods were processed in Amsterdam and there merchants traded commodities from all over the world.

The Amsterdam Exchange Bank was set up in 1609 to overcome the currency chaos which was impeding trade. The bank issued cheques which could be used in Europe, Asia, and America. During the 17th and 18th centuries "finance houses", which were initially often subsidiary activity of merchant companies, were established.

Transport and shipping have played an important role in the development of Dutch trade with the rest of the world. Dutch shipbuilding led the way. Thanks to the invention of the sawmill in the area around Zaanstad, shipbuilding was standardised and therefore became fast and cheap. The fluit (known in English as the "Flute" or "Fly-boat"), an efficient and reliable cargo ship, played an important role in the development of Dutch trade with overseas territories.

Thus, in the 17th century, which came to be known as the Golden Age, the Netherlands became a centre of trade, diplomacy, and learning. Dutch merchants and seafarers introduced, among other things, free trade, the stock exchange, and international banking.

This enormous cultural heritage is reflected in Dutch cities with their canals, merchants' mansions, churches, town halls, warehouses, mills, and thousands of listed buildings. Museums the world over display the works of Dutch masters, such as Rembrandt, Vermeer, and Frans Hals, which depict the prosperity of the merchants and the industrial bourgeoisie.

Dutch East and West India Companies.

From the 16th century Dutch merchants have sailed all over the world. They used simple but effective navigational instruments. In their quest for unknown territories and trade routes the Dutch were the first Europeans accurately to chart Australia, New Zealand, Cape Horn, and scores of other smaller countries, islands, and navigational routes.

In the 17th century the Dutch East India Company (VOC), which was founded in 1602, was the largest commercial enterprise in the world. It was granted a government monopoly of Dutch trade in the waters from the Cape of Good Hope eastwards to the straits of Magellan. From 1619 Batavia was a base for Dutch ships and a distribution centre for the factories.

The Dutch West India Company (WIC) was founded in 1621 and was granted a government monopoly on trade on the west coast of Africa and all the islands in
the Pacific between the Americas and the extremity of New Guinea.

Some of the trading posts established by the Dutch have become major cities such as New York, Cape Town, and Jakarta. In many countries façades and forts in the Dutch style are a reminder of the former Dutch presence.

VOC ships regularly sailed to Asia carrying orders for special products. The VOC also played an important role in trade between the countries of Asia.

In the 17th century pepper and other spices were the most important products. When the Moluccan islands of Ambon and Banda in the Indonesian archipelago were conquered, the VOC acquired the world monopoly on trade in cloves and nutmeg. The conquest of Ceylon (Sri Lanka) added cinnamon to the list. Japan and China produced porcelain and lacquer work. In the 18th century textiles from India and tea from China became important commodities.

The West India Company made its money partly from exporting sugar from Suriname. It also engaged in the slave trade between Africa and the Americas.

Commodities such as sugar, tobacco, valuable tropical timber, beaver pelts, and ivory from America and Africa were sold to buyers from all over Europe on the Amsterdam exchange. The Dutch transported large amounts of gold, silver, textiles, pottery, and beads to Asia, Africa, and the Americas.

Asian, African and American cultures and products have an enormous influence on the Netherlands. A large number of items which are considered typically Dutch actually came from elsewhere. The tulip, for example, originated in Turkey, windmills in the Middle East, and the renowned Delft Blue earthenware was inspired by Chinese porcelain. Colourful lengths of printed Indian cotton (chintz) were used in Dutch regional costumes.

Pepper, cloves, and cinnamon have been used in Dutch cuisine for centuries. Tobacco was smoked in typically Dutch long clay pipes. The VOC brought back coffee from Mocha in Arabia and tea from Canton in China.

Dutch artists such as Rembrandt, van Gogh, and Breitner were influenced by oriental culture, and Dutch writers such as Couperus and Multatuli set their novels in the Dutch East Indies.

420 million consumers

At the end of the 18th century the VOC’s charter was revoked and trade between the Netherlands and the rest of the world virtually came to a standstill. In 1814 King Willem I established the Dutch central bank. The Netherlands Trading Company was founded in 1824 and engaged in trade, ran plantations, and also performed banking services. From 1880 the company turned its efforts entirely to banking and following a series of mergers is today ABN AMRO Bank, the largest bank in the country with hundreds of branches throughout the world.

The Netherlands has remained one of the world’s most important trading nations, from which it is possible to reach 420 million European consumers within a day-and-a-half.

KLM, the Dutch national airline, is the oldest in the world and has operated a worldwide network since the 1920’s.

Today, Rotterdam is the world’s largest port. Schiphol airport, which is near Amsterdam, and an extensive railway network and system of roads and inland waterways, ensures the flow of goods that enter and leave Europe through the Netherlands. In days gone by wooden sailing ships transported products to the Netherlands, while today this is done by container ships and oil tankers which are navigated by radar and satellite. Dock hands and simple cranes have been replaced by computerised robots.

Freight is transferred fast and efficiently from ships and aeroplanes onto trains, trucks, and inland waterway vessels to be delivered anywhere in Europe within a matter of days. The Dutch transport industry is now the largest in Europe.
DAI Hosts
The Tenth Governing Council Meeting of IRCICA

In the presence of Dr. Hamid al-Ghabid, Secretary General of the Islamic Conference Organisation, the Minister of Information, H.E. Sheikh Saud Nasser al-Sabah, opened in Kuwait the first session of the Tenth Meeting of the Research Centre for Islamic History, Arts, and Culture of Istanbul, which was called for by the Centre’s member, Sheikha Hussah al-Sabah, Director of Dar al-Athar al-Islamiyyah, during the week of 13 November, 1993.

Members of the Governing Council present were:

- Prof. Dr. Ikremlihidin Ihsaan Oghli, the Centre’s General Director
- Prof. Ahmed Muhammad Essa, the Centre’s Vice Chairman (Egypt)
- Mrs. Raja Fowzia Bint Raja Ton Odeh (Malaysia)
- Prof. Dr. Ihsaan Doghrani (Turkey)
- Dr. Abul-Allah Hassan Masri (Saudi Arabia)
- Dr. Omar Jahl (Gambia)
- Prof. Dr. Afeef Bahnasi (Syria)
- Prof. Dr. Gulzar Haidar (Pakistan)
- Sheikha Hussah al-Sabah

Both the Minister of Information and Sheikha Hassah officially and cordially welcomed the guests, and spoke highly of the role played by IRCICA, Istanbul, in the various services it has rendered Islamic culture and civilisation, as well as the vital issues it has pursued in this respect.

The role played by Kuwait was praised by Dr. Hamid al-Ghabid, Secretary General of the Islamic Conference Organisation, by Prof. Ahmed Essa, Vice President of the Board of Directors of the Centre, and by Dr. Ikremlihidin Ihsaan Oghli, its General Director.

The opening speeches were followed by a tour of the exhibition, A View of Scenes From Early 20th Century Kuwait and the Islamic World. This exhibition had been arranged by the Centre.

The exhibition included a good number of the IRCICA’s publications on various political and cultural issues, in addition to many photographs and posters. The guests also had a view of the Arabic calligraphy exhibition arranged by DAI for the occasion. Many Kuwaiti calligraphers presented their works. Ali al-Baddah, Waleed Farhood, Muna Ayadheh, Abdullah Othman, Abd al-Ameer Al-Banac participated in the exhibition.

Activities accompanying this seminar included:

- a showing of Aziza Ya Kuwait
- a lecture by Dr. L.I. Oghli, the General Director of the Centre, entitled “The Islamic World and Modern Science”
- a lecture by Prof. A.M. Essa, the Vice Chairman of the Board of Directors of the Centre: “Applied Arts Terminology: A Case Study”
- a lecture by Dr. Afeef Bahnasi, Professor of Arts and Islamic Architecture in Damascus University, under the title: “The Islamic Architecture of the Present Age”
- a lecture on “The Challenges of Architecture” by Professor Gulzar Haidar, Carlton University.
The Islamic World and Modern Science

The problems facing developing Islamic countries in the highly competitive world of science and technology were addressed in a lecture by Prof. Dr. Ismailidin Ihsan Ogili.

The following is a summary of that lecture.

The pioneering role of science and technology in the continuity and development of human civilisation is a subject viewed with special interest in the countries of the Islamic world at present. Science and technology together constitute one of the most important development challenges in the Islamic world today. However, despite varying levels of scientific and technological progress in Islamic countries, these countries are generally not the centres of production. The consequence of rapid growth achieved in this sphere by the industrial countries has been their increasing domination of markets, with the gap separating Islamic countries from these countries steadily widening.

In developed countries, science has indeed become an integral part of culture. Since the Industrial Revolution provided the means with which to both utilise modern science and technology as well as to make innovations through 'pure science', science and contributions to its development have become deeply rooted in educational, cultural, and economic institutions. It is here that the formation of the 'foundation' or 'climate' necessary for science and technology can be seen.

Absence of Scientific Thought

Despite the encouragement of Islam, the harsh reality is that even the harshest 'climate' or 'foundation' for science is still non-existent in the Islamic world. Although there are some exceptions, it is rare, on the governmental level, in the institutions of higher education, or in academic circles, to find a place for scientific thought. A quick look at development plans reveals the insufficiency of activities pertaining to research and development, the scarcity of the numbers of capable researchers and technicians, and a deficiency in both infrastructure and scientific institutions.

Countries which have formulated effective science and technology policies are few in number. As an important indicator of developmental priorities, the amount of resources specified for research and development in the industrialised countries is, on the average, 2.5% of the national income; this plummets to a 1%, or even 0.5% average in many Islamic countries. Moreover, the distribution of funds allotted within the sectors operating within this range will illustrate the extent to which this activity is related to production sectors. Policies concerning scientific activities have a great share in the Islamic world's failure to produce a scientific and technological renaissance.

Many studies have been published on the transmission of science from Muslims to Latin Europe in the mediaeval period and on the role of this process in the scientific transformation that paved the way for the birth of the Renaissance and modern science in Europe. Although much research has been conducted on the flow of scientific literature from the Islamic world to the West, the transmission of modern science into the Islamic world has not been properly investigated. The transmission of science is germane to an understanding of the interrelationship between these civilisations.

The persistent opinion is that the Muslim's first contact with modern science from the West began with the arrival into Egypt of the French expedition (1798-1801). Prof. Ogili disputed this, pointing out that it is both biased and deficient in historical documentation.

The Ottoman Avant-Garde

The Islamic world of the 16th century was represented by the Ottoman state. A crucial point in understanding Euro-Ottoman relations is that the Ottomans felt themselves to be of a higher status than the Europeans, both materially and spiritually. Their military and economic superiority, as evidenced in their successful wars and in their hegemony over material wealth and trade routes, was responsible for their feelings of material superiority. Moreover, that they were Muslims and imbued with a sense of being the inheritors and protectors of Islamic civilisation, consolidated within them a sentiment of moral superiority.

The Ottomans' proximity to Europe gave them a distinct advantage in following developments taking place in Western Europe. This geographical location was enhanced by the movement into the Ottoman realm of diplomats, travellers, merchants, sailors, converts to Islam, and Jewish refugees escaping oppression in Catholic Spain and Portugal. Sultan Muhammed the Conqueror invited Gentile Bellini to Istanbul to paint his portrait. His newly constructed palace (1479-1481) was decorated with frescoes in the Renaissance style. Artisans specialising in bronze-casting and in scabbard making were commissioned from Venice.

The Current Situation

Prof. Ogili concluded, stating that failure to maintain a balance between traditional Islamic science and the modern sciences of the West has been the factor behind the emergence of intellectual dualism within Muslim society.
The following is an abstract of Dr. Haider’s lecture.

"Peninsular Arabia and Gulf States constitute one of the most active architectural areas for the past twenty-five years. This intense architectural activity has provided much material for the discourse and debate on history, tradition, identity, modernity and progress. While these are examples of good design, most of what has been built reflects a state of uncertainty of purpose or clarity of vision.

It is my opinion that the current state can be linked to the attitudes and methods of dealing with 'past' and 'history'. Past is on one extreme rejected as irrelevant and dead. On the other extreme it is approached as a magical treasure chest which if unlocked will bring forth the "time of glory". Between these two extremes there is a whole spectrum of individual and institutional compromises.

Through the examples of selected works of his own, most notably the mosques of Indiana and Toronto, and the Manhattan Mosque designed by SOM under the Kuwait patronage, desirable approaches are identified. 'Past' is a garden in a realm of time that cannot be realistically reached. Critical and purposeful reading of history, however, makes it possible for us to extract the "essence of this garden or of the past, and thoughtful design can help us infuse this essence into the landscape of the future - which, first and foremost, is the aim of architecture." This critical reading of history is done through the medium of art and philosophy whose examples are shown.

Dr. Gulzar Haider is a Professor of Architecture at Carlton University, Ottawa, Canada. He is active as a design consultant with special focus on architecture with cultural and religious dimensions. He has been a member of the International Commission for the Preservation of Islamic Cultural Heritage (ICPICH) and a consultant to the Research Center for Islamic History, Art and Culture (IRCICA) in Istanbul. He has been in USA and Canada since 1961 where he did his studies at the University of Illinois."
"The Islamic Architecture of the Present Age"

by Prof. Dr. Afeef Bahnassi

The following is a translation of an abstract of a lecture from Arabic.

Prof. Bahnassi expressed his views in a lecture on Islamic architecture from the perspective of human response to the conditions of nature. The response is as old as the 7th millennium B.C., and is evidenced in houses excavated in Palestine and Syria. These houses were decorated with colours and are an early example of incorporating various genres of the plastic arts into architecture. As the art of architecture developed, this took the form of painting and sculpture. This is manifested in Islamic architecture, particularly in the Umayyad palaces with their characteristic sculpture, mosaics and frescoes.

The vocabulary of line and colour in architecture soon developed into that of mass and space. The notable and extensive heritage of Islamic architecture developed from this foundation until it was challenged by colonial styles which permeated the architecture of Cairo, Alexandria, Algiers, Rabat, Casablanca, Aleppo, and Beirut. This was followed in the 20th century by the emergence of modern architecture in Germany under the name ‘Jugendstil’. This new style, involving buildings of glass and metal, was the beginning of an internationalisation of architecture. It was based upon the total rejection of all architectural traditions and on bringing architectural engineering back to abstract forms and sizes—with certain imbalances in size, mass, and volume.

Prof. Bahnassi then went on to raise the question of how far removed are modern buildings from the buildings of the past. In his view, today’s architects have been able to restore a vernacular architecture—not without creativity—that homogenises the difficult shift from previous to the current techniques. In addition to their inventive powers, they are consciously aware of the characteristics of Islamic architecture.

The first is the concept of ‘inner space’. Islamic architecture is characterised by an inward orientation that is totally independent of ‘outer space’. All its structural elements, including space, mass, line and decoration, are an integral part of the inhabitant’s life. They may never be glimpsed from the outside, for traditional Islamic architecture is not primarily concerned with town planning. There are elements, however, that connect with the sky, such as the inner, open courtyard, the minaret, and the dome, which symbolises the dome of heaven.

The second characteristic of Islamic architecture is its human scale, in which tranquillity and serenity are maintained, along with comfort and security. Trees, plants, roses, pools, shaded areas (divans), decorations, embellishments, arches, doors, ceilings, walls are all made to function within this human principle.

The third characteristic is a kind of “protectionism” or “isolationism” from the weather forces. To achieve this objective, clay and wooden walls were made doubly thicker, ceilings were made higher, ground floors were elevated above the yard level, and outside wind, no matter how stormy, was kept outside.

Unfortunately, this pattern of architecture “failed to cope with the demands of contemporary urbanization.” Architecture had to abide by a city-oriented philosophy of construction, and there emerged once more the necessity of readjusting the classic with the contemporary.
Trilogy of Fear

On August 1, 1990, Marye Shinn was working on a graduate thesis on Bernard of Clairvaux and Cistercian art and architecture, as her specialties are art and history. On August 1, her entire focus was on twelfth century Europe. On August 2, the world of Iraq rudely emerged on the international scene. Since that day, she has studied Iraqi propaganda in its various forms. The jump from 12th century Cistercian history to 20th century Iraq is not as incongruous as it may seem. In her research, she had compared Cistercian art and architecture with the art and architecture of the Islamic world. She also had analysed Cistercian aesthetics in juxtaposition to other monastic orders, such as the Cluniacs. Bernard of Clairvaux preached the Second Crusade and, like Saddam, tried and failed to conquer the Middle East. In many ways, she noted, her intensive study of a medieval dictator, prepared her to understand Iraq. Bernard of Clairvaux, like Saddam of Tikrit, aggressively imposed his own ideas on the art of his time. He not only dominated his own order, but attempted to control other monastic orders. His famous tirade against Cluny bears some resemblance to Saddam Hussein’s tedious television lectures. However, unlike the Cistercians, whose art and architecture was high context, even avant-garde, the art of the Iraqi regime is not.

The lecturer introduced the question of aesthetics in the current Iraqi regime, primarily through an examination of the writings of the Iraqi dissident, Kanaan Makiya, better known by the pen name of Samir Khalil, in the three books he has written on Iraq. This trilogy consists of Republic of Fear, The Monument, and Cruelty and Silence.

Republic of Fear gives the outsider a view towards an understanding of how and why the regime works in Iraq. The second, lesser known book, The Monument, develops this theme in the artistic manifestations of the Iraqi regime. The third book, Cruelty and Silence, is an extension of the Republic of Fear, i.e., the intellectual ramifications and their extension into the Arab world and beyond.

Republic of Fear, written before the Iraqi invasion of Kuwait, was, as its author stated, an inquiry into the “meaning” of the Iraqi regime, not its history. In this book, Makiya examines the proclivity of the leaders of the regime to propaganda, rhetoric, and lies. Republic of Fear analyses the means by which fear and violence are perpetuated throughout the society and become the norm.

Republic of Fear is the basic source of the other two books in the trilogy. Makiya’s most recent book, Cruelty and Silence, takes the path more clearly of intellectual history, as it is a criticism of the scholars and intellectuals who shamefully failed to speak out against Iraq’s invasion of Kuwait. This book, however, goes beyond regional lines, because it is a challenge to all intellectuals to take a stand.

The lesser known of this ‘trilogy of fear,’ The Monument, was written under his pen name. The author analyses the significance of the use of art by the Iraqi regime. His central example is the monument (‘The Victory Arch’), and his title is based upon this. However, the book deals with much more than this. The speaker pointed out that Makiya’s knowledge of aesthetics came as a bit of a surprise to those who thought of him essentially as a political writer.

The thesis developed in Republic of Fear carries into his second book, The Monument. This is a natural path, since the ideology of Saddam’s Iraq totally permeates all artistic activity there. The writer explains how art in Iraq has been reduced to kitsch and how artistic values have lost their importance in a society dominated by overwhelming terror. He also provides insights into how the loss of these values is crucial in a society becoming incapable of developing further resistance to the regime. A cycle is established in which fear paralyses art, and this paralysis incapacitates not only further artistic development but also freezes opposition. The very nature of its political system represses the activities that could eventually save its society. Art is not a luxury but rather an essential element of a civilised society. The writer shows both the Iraqi regime’s use of art as well as its misunderstanding of it; while extolling the virtues of the past events within the present borders of Iraq, the regime has failed to comprehend them.

The author attributes this to the limitations of the leader and, perhaps
Makiya points out how the art of the heritage school disintegrated into kitsch under the present regime, as its form and content of the heritage tradition were reassembled into propaganda. The irony of this transformation is that instead of preserving the heritage, it destroyed it.

The art of Iraq is pastiche. Showing a slide from the book of the Ishtar gate in front of a modern structure and a slide of a wooden board of Saddam Hussein over the Ishtar gate as an example, the use of historical motifs as facades on modern buildings is illustrated. Makiya also contrasts the works of Hasan Fathy in the Arab world and Quinlan Terry in the West with the architecture of the Iraqi regime, pointing out that these architects are still practicing old traditions. They have not merely added on Mamluk or Classic modules and patterns, but are actually successfully working in the traditions that produced these modules and patterns. The ‘aesthetics’ of the Iraqi regime cannot comprehend the relationship of form to function that these artists so thoroughly understand.

Marye Shinn interprets Makiya’s ideas within the context of the invasion of Kuwait. She stated that the aesthetics of the Iraqi regime failed to become established in Kuwait during the occupation, although its manifestations were conveyed through a plethora of media, including music, sculpture, theatre, poetry, and its primary vehicle was television. The occupation of Kuwait was a perverse exhibition of the arts in Iraq, par excellence, with Aug. 2 as its opening day. Videos of the occupation are the record of that exhibition. The Kuwait station was still functioning, broadcast from clandestine locations and the Iraqi-controlled ‘Kuwaiti’ station had not yet been set up. These tapes, randomly recorded and unedited, reveal, for example, the intrinsic contrast between the political kitsch of Iraqi music, and the occupied Kuwait, to literally turn off Saddam Hussein and tune into the outside world. Unlike the Iraqis, for whom Saddam Hussein had become an overwhelming presence, the Kuwaitis were able to hear broadcasts from their own government, as well as international reports. Total occupation in its media dimensions presupposes control over technology. In this case, technology served art.

Kuwaiti artists outside of Kuwait were able to produce and televise into occupied Kuwait. The inability to establish artistic monopoly by the occupying power was an embarrassment to that power.

The lecturer concluded by saying that in the final analysis, Kanaan Makiya’s works are a valid testimonial to the importance of freedom in attaining artistic excellence.
Within its current cultural season, Dar al-Athar al-Islamiyah has arranged for Russian Professor G.L. Bondarevsky to read a paper on "A Century of Russian/Gulf Relations." The lecturer is a distinguished professor of history who, for fifty years, has been investigating and researching in the archives of Russia, India, Britain, Germany, and the United States. He is a specialist in Middle Eastern history and international relations. He graduated from Moscow University in 1940 and has written four books on Kuwait.

The initial incident in Professor Bondarevsky's paper takes place in 1883, the year the first Russian auxiliary cruiser, the 'Nizhni Novgorod', anchored in Muscat and thus inaugurated Russia's relations with the Gulf. The report of the ship's captain was twice read by no less than Tsar Alexander III, which meant a deserved significance.

Ever since, Russia has shown interest in the area. When, in 1899, Sheikh Mubarak al-Sabah signed an agreement with Britain, the Russian Consul at Baghdad, Kruglov, immediately dispatched two merchants to Kuwait for the ostensible purpose of buying leather. One of them returned with information so extremely important that the Tsar's government awarded him a silver medal.

Commercial relations between the Gulf and Russia thereby began, in effect, at the end of the 19th century. Diplomatic relations were to come later.

In April 1900, the first Russian warship, the 'Gilyak', arrived in the Gulf and visited some seaports on the eastern coast before anchoring in Basra and, eventually, Kuwait. This visit to Kuwait had a special significance, for it brought to an end decades of reluctance on the part of Russian involvement in Gulf affairs on a diplomatic level without the prior permission of Sultan Abdulhameed. In a further important development, Kruglov, the above-mentioned Russian Consul at Baghdad, and his assistant, Osyvenko, later received orders from Moscow to advance to Basra and perfect preparations for a grand reception of the first Russian warship to anchor there as well as to visit the then 'unknown' Kuwait, later.

In keeping with the traditional Russian infatuation with secrecy, Kruglov and his assistant decided to take the trip from Baghdad to Basra in two different ships. Each ship's captain was given strict instructions to steer it at the slowest possible speed, causing the journey to take five days instead of the usual two. This was perhaps to confuse the English officials, who were not inactive. Tight measures which were in force required that the 'Gilyak' should not spend more than two days in Basra. This would make it impossible for the Russian diplomats to arrive in time to receive it. Luck, however, was on the Russian's side. Weather circumstances did, in fact, delay the 'Gilyak', and the Russian diplomats were able to reach Basra ahead of the ship. It is noteworthy that contemporary reports reveal the fact that they made an immediate and close contact with Mubarak Pasha on that very day. Musa bin Pasha was the Governor General of the Province of Basra, and they had obtained the information that he was an intimate friend of Sheikh Mubarak al-Sabah and that between them existed a solid personal and financial relationship. Musa bin, along with Sayyid Talib al-Nageeb, an influential personality in Basra, were extremely cooperative in preparing for the 'Gilyak's visit to both Basra and Kuwait. When he returned to Baghdad, Kruglov dispatched his report to Saint Petersburg and requested that a Russian insignia be bestowed upon Mubassir Pasha.

In March 1900, the 'Gilyak' dropped anchor in Kuwait. The Russian seamen were received with considerable generosity as Sheikh Mubarak's guests. They exchanged with him long conversations and were able to establish promising relations with this ruler who spoke sympathetically about Russia.

Kruglov's report was extremely significant, not only for the Russian Foreign Office but also, and to a greater extent, for the highly influential Minister of Finance, Vyrt. The Minister of Finance took notice of the encouraging contacts and immediately proposed the establishment of commercial relations with the Gulf region.

The important Russian "Company for Steam Navigation and Commerce" received orders to annually load four ships for the Gulf. In 1901, trade commenced between Russia and the region. The 'Komilov' was the first trading ship to arrive from Odessa on the Black Sea to the Gulf seaports. The situation around Kuwait, however, was so extremely tense that the company's ships could not visit the sheikdom that year. A year earlier, a high ranking German delegation, headed by Kaiser Wilhelm II, had visited Kuwait to request Sheikh Mubarak al-Sabah's approval for the construction of a railway station at Kadhama to connect Kuwait with the Berlin-Baghdad railroad.

In the spring of 1901, Sultan Abdulhameed issued strict decrees to the Turkish civil and military authorities in Baghdad and Basra to prepare for a large scale military offensive against Kuwait. It was planned as a joint operation; Turkish forces would be carried into the Bay of Kuwait by the only Turkish warship in the Gulf, the 'Zuhaf', and the Turkish artillery would bombard Kuwait from the north, while Sheikh Mubarak's tribal opponent, Sheikh Ibn Rasheed of the Shammar tribe, would attack from the northwest. That was indeed the first Kuwaiti crisis, rather than the events of the 1890's, for in March 1901, across that desert adjacent to al-Sareef, the Kuwaitis suffered a major defeat at the hands of Ibn Rasheed's forces.

We know from history books that the British commissioned one of their warships to stop Turkish forces marching from both the north and the Gulf. What was not known, however, until last year,
is the fact that Sheikh Mubarak, concurrently, contacted the Russian government for assistance.

**Sheikh Mubarak’s Messages**

Prof. Bondarevsky revealed the fact that he had unearthed from the Russian archives three messages which Sheikh Mubarak, only one day after his return from al-Saieef, forwarded to the Russian Vice-Admiral. Despite the bloody military situation and the extremely grave circumstance, he immediately asked the Russian trade envoy, Abital Aliev, to rush to Kuwait, where he gave him letters for Ovseyenko and Kruglov to be dispatched to Saint Petersburg.

Prof. Bondarevsky made it clear that the central issue in these letters was not simply a request for help, but Sheikh Mubarak’s emphasis on the fact that the sheikdom had been independent for a long time under the Sabah family. In the second letter, Sheikh Mubarak stressed the reality that he and his forefathers had been independent, and that no other state interfered in their affairs. He made it clear that he was only assuming some routine tasks with the Turkish authorities, related to Kuwaiti possessions in the areas under Turkish rule, without any promise on his part towards the Turks. He concluded by re-emphasising his need for Russian assistance.

On April 30th, 1901, Kruglov directly sent a ciphered telegram to the Russian Foreign Office. Top level discussions ensued, in which Tsar Nicholas II himself took part, together with a large number of ministers.

The Russian Foreign Minister afterwards cabled a message to the Russian ambassador at Istanbul, in which he said: “in view of the tense situation in the region, because of which we received letters asking interference for the sake of Kuwait, we cannot respond to them.” He said that this decision was made by the Tsar in favour of maintaining undisturbed relations with Britain.

However, because of these letters, Russian diplomats in Basra were careful not to alienate Sheikh Mubarak away from Russia. Adamov, who later became the first Russian consul at Basra, issued orders in August 1901 for immediately informing Sheikh Mubarak, on behalf of the Russian government, that Russia would use its influence and relations with the Turkish government to defend his legitimate rights and his demand that Kuwait should remain independent.

**The Russian Efforts**

It becomes clear, after studying all the important documents relevant to the situation, and especially to the border issue, that these instructions were received during the second week of the Kuwaiti crisis. Towards the end of August, one Turkish warship entered Kuwait Harbour, only to quickly withdraw under constraint from the British warship, the ‘Terpsichore’, which blocked the approach to the town.

Sultan Abdulhamid was furious. He was under heavy pressure from the German embassy in Istanbul to take military action against Kuwait and found himself, therefore, at the brink of confrontation with the British. Turkish forces grouped in Basra and Samawa. Kaiser Wilhelm II ordered that Kuwait should be the terminal station of the Berlin-Baghdad railroad. At this critical moment, Russian diplomats stepped forward. The Russian ambassador in Istanbul held three meetings with the Turkish Foreign Minister and demanded an immediate cessation to all military preparations. In Basra, moreover, the Russian Consul demanded of the military authorities that they not interfere in Kuwait affairs.

Meanwhile, the Russian Consul informed Sheikh Mubarak of the Russian effort. The Russian ambassador in London urged that a settlement be reached. He asked the British government not to yield to Turkish pressure and to declare Kuwait a protectorate – a matter which would have complicated the situation immensely.

Russian diplomacy was engaged primarily in two matters. The intention was to try to stop the Turks, while at the same time restraining the Iranians’ ambition in Kuwait via the declaration of protection.

After heated and extended arguments in Istanbul, London, Calcutta, and Berlin, a settlement was reached. Much change occurred during the period between 9-12 September. The Turkish ambassador in London and the British Foreign Secretary signed an agreement which stipulated the preservation of the Sheikdom of Kuwait as it had been. Turkey promised not to declare protection upon the country, and this constituted a major impediment to the Berlin-Baghdad railroad.

In the latter half of 1901, Russian commercial activities in the Gulf (which was frequented regularly by Russian ships) produced three results. A general consulate in Basrah was founded, a consulate in Basra was set up, and the consulate in Baghdad was upgraded to a general consulate. In an important development, Kruglov, Sheikh Mubarak’s strong supporter, was promoted to the new office, while the Sheikh’s other friend, Adamov, took over as Deputy Consul in Basrah.

**Russian-Saudi Relationships**

The early contacts between the Russians and the Saudis in 1901-3 and the Russians’ visit to Bahrain in 1902 were mentioned in the second part of Prof. Bondarevsky’s paper.

In the third part he discussed the era of the 30’s, which witnessed the export of Russian petroleum to Saudi Arabia, the new commercial activities between the Soviets and the Arabian Gulf in conflict with British interests, and the declaration of the Saudi Arabian kingdom in 1932. He also touched upon the Baghdad agreement and the Soviet breakthrough with Saudi Arabia.

During the 60’s, he concluded, several important issues came to the fore. After Kuwait attained independence, diplomatic relations between Kuwait and the Soviet Union were established in 1963, followed by Soviet technical aid programs. The climax was, of course, the Soviet attitude towards the Iraqi aggression and its important participation in the international efforts to liberate Kuwait, culminating in the security agreement with Russia.
Islamic Art and Patronage: Treasures from Kuwait, the travelling exhibition of Dar al-Athar al-Islamiyyah, continued its European tour with an opening on 16 June, 1993 (Closed on 6th October 1993) at the Gemeentemuseum in the Hague. The showing of the exhibition in the Netherlands marked a milestone for a tour that has been extended indefinitely. H.E. Ahmed Sammak, the Ambassador of Kuwait to The Netherlands, attended the opening ceremony, as did The Director of the Gemeentemuseum, and the Head of the Islamic Department, Dr. Jef Teske.

Islamic Art and Patronage: Treasures from Kuwait was originally planned to reciprocate an exhibition in Kuwait at the Dar by the State Hermitage Museum in Russia, to be followed by a tour in the USA arranged by the Trust for Museum Exhibitions in Washington. However, as a result of the Iraqi aggression on Kuwait, the exhibition, which had left Kuwait only a week prior to that aggression, has been transformed by the special circumstances under which it has been forced to carry on. The exhibition opened in St. Petersburg (then Leningrad), as scheduled, on 6 August, 1990 and went on as planned for the whole month. After the success at the Hermitage, the Dar’s exhibition was moved to North America, starting in Baltimore, Maryland at the Walters Gallery in December 1990. Although tension was high and the UN deadline for the withdrawal of Iraqi troops from Kuwait was near, it then moved to the Campbell Museum for Art in Fort Worth, Texas, followed by a succession of shows in the Emory Museum of Art in Atlanta, Georgia, the Scottsdale Cultural Centre in Scottsdale, Arizona, the Virginia Museum for Fine Arts in Richmond, Virginia, the St. Louis Museum, St. Louis, Missouri, The Canadian Museum of Civilization in Hull, Quebec, and, finally, to the New Orleans Museum of Art, Louisiana. It then began its European tour with an opening at l’Institut du Monde Arabe in February, 1993, lasting until May, 1993. Islamic Art and Patronage: Treasures from Kuwait, which had begun as a cultural event focusing upon Islamic patrons throughout the ages and the art and artists they encouraged, became a symbol affirming Kuwait’s very existence. Its planners had not anticipated that the exhibition would take on a political dimension.

Henk Muller, the Dutch journalist, reviewed the exhibition in an article entitled “Fairy-tale Art from Kuwait” for the daily De Volkskrant. "The
The exhibition aims at giving a view on thousand years of Islamic art... Its core is the collection belonging to Sheikh Nasser Sabah al-Ahmad al-Sabah and his wife, Sheikha Hussah Sabah al-Salim al-Sabah. From their vast collection they assembled an exhibition of 130 pieces, which were already on display in Russia, the US, Canada and Paris. The collection is in the Waaps Gemeentemuseum until 17 October 1993.

The courts of Damascus, Baghdad, Cairo, Cordoba, Bukhara, Samarkand, Istanbul and Isfahan attracted many artists. The patrons of art often were art collectors, and this is true for the Kuwait Sheik and Sheikha as well. The al-Sabah collection is on loan to Dar al-Athar al-Islamyyah, a part of the National Museum of Kuwait.

For the sake of the exposition, Islamic art history has been divided into four periods. From each period representative items are being displayed. One of the most marvelous is a so called copper astrolabe dating from the 9th century. The Arabs had perfected the astrolabe into a portable instrument that enabled its user to measure the distance of the sun or the stars in relation to the horizon. Arabic seamen used it to calculate their course of India and South-China.

The exhibition shows how various the different Islamic cultures were. A beautiful ivory box from Spain (al-Andalusia), a 16th century crystal bowl with gold and glims from India (when it was still predominantly Islamic), a 16th century Chinese influenced plate from Turkey."

Although deploring the "scanty set-up," Mr. Muller states, "Nevertheless, the exhibition is worthwhile...there are marvelous pieces to be seen, pieces that are rarely on display anywhere in the world (with the exception of Kuwait). Take for instance that gigantic Koran from 1346: such a colossus was made for the big mosques and mausoleums in Cairo... Moreover, it is for the first time that the role of the patronage and maecenate has been dealt with thematically. This perspective cannot be forgotten anymore in the western history of arts. The English catalogue is therefore indispensable. Not only because its pictures show the fairytale beauty of the artifacts, but also because the accompanying essays explain how the power of the caliphs, sultans and governors expressed itself in Islamic art forms, and how this gave an impetus to the Arts itself."

The exhibition was also reviewed by Kitty Kilian in NRC - Handelsblad.

She recounted the history of the looting of the museum during the invasion of Kuwait and the removal of its contents to Iraq. She mentioned the subsequent burning of the museum, noting in particular the destruction in that fire of the pair of 14th century doors from Fez in Morocco, doors which were decorated with Qur'anic inscriptions.

Ms. Kilian felt the display to be a bit dull, but she was full of praise for the catalogue.

NRC - Handelsblad published a notice about the exhibition in its weekly list of important events during the entire exhibition.
Al-Dar Library

Dar al-Athar al-Islamiyyah has always valued its friends as an integral part of its existence. During the Iraqi aggression and its aftermath, the friends of the Dar were steadfast. Their sincerity, as shown by the scholarly, emotional, and technical assistance they extended to the Dar, has proved to be a major catalyst. One of the areas in which we have been inspired by the encouraging gestures of our friends is that of donations to the library. Every book that arrives is a treasured addition. It is always a delight to open these parcels, whether it is a newly published work or an old acquaintance. The heart of the collection was always the library, and we are restoring it. Much damage was done, and the task is slow, but the thoughtfulness of our friends has made us feel that we have support.

BOOKS PRESENTED TO THE DAR RECENTLY

- Bilke...
The following titles were generously donated to the library of Dar al-Athar al-Ismiyya by the Research Centre for Islamic History, Art, and Culture (IRCICA) in Istanbul.

19. Miniatures from Turkish Manuscripts by Norah M. Titley, the British Library, 1981.
On the occasion of having received the shared award of the Kuwait Foundation for the Advancement of Science, bestowed on them for their contribution to the Arabic Islamic scientific heritage (architecture), Prof. Dr. Salih Lumai’ and Prof. Dr. Abdulbagi Ibrahim gave two lectures upon invitation from DAI on 20th November 1995 as part of its cultural cooperation with KFAS. Professor Dr. Abdulbagi Ibrahim presented a paper entitled “Al-Assalah and al-Muassarah in Islamic Architecture.” He defined “Al Assalah” [literally, ‘authenticity’] as a society’s specific cultural, social, and architectural heritage. This contrasts with “al-Muassarah” [literally, ‘contemporariness’], which Prof. Abdulbagi Ibrahim defined as “the inevitable outcome of continual interaction between the cultural components of a society with those of other societies.” The following is an abstract of that lecture:

Prof. Ibrahim stated that he believes these two concepts to be interconnected by consecutive and continuous links. These links produce movements in architecture as well as in other social and cultural spheres. Citing Islamic architecture as an example, he distinguished the ideological component from the formal or the plastic. The ideological springs from Islamic values and codes which transcend time and space. Nevertheless, the speaker pointed out that, although Islamic architecture is a unifying element among various Islamic cultures, not every construction by a Muslim is necessarily Islamic in content.

The Principle of ‘The Middle Path’

It was stressed that “Islamic civilization has been built on the principle of the median.” This principle may be considered a criterion for the quality as well as the quantity of building construction. “Western architecture,” the professor elaborated, “normally reflects capitalist individuality... whereas Eastern architecture reflects social collectivism.” The ‘middle path’ of Islam, however, “can coordinate both individuality, through the interior, and collectivism, through the exterior, in the same construction.” In this manner, the individual taste of the inhabitants can be expressed within the inner space of the building, while the outer form can conform to social norms.

Three Books

The speaker referred to three books he has written related to the subject: Historical Perspective of Architecture in the Arab East surveys Arab architecture throughout the ages within the perspective of cultural production. Beginning as early as the Pharaonic and Assyrian periods, he traces the line of Arab culture through the Coptic, then the Islamic, to the modern period. In Islamic Perspective in Architectural Theory, he “establishes for Islamic architecture its contemporary theory, derived from the foundations of Islamic doctrine.” The interrelationship between the concepts of al-Assalah and al-Muassarah is reconfirmed. Structuring Architectural Thought aims at providing students of architecture with ideological, intellectual, and artistic knowledge throughout their academic life. A fourth book, co-authored with Dr. S. Lumai, The Bases of Architectural Design and Civil Planning in the Case of Islamic Cairo, is considered an important reference for architectural researchers.
Geometrical Analysis of the Principles of Islamic Building Design

On the occasion of having received the shared award of the Kuwait Foundation for the Advancement of Science, (KFAS) bestowed on them for their contribution to the Arabic Islamic scientific heritage architecture, Prof. Salih Luma'ī and Prof. Dr. Ahdelluqbi Ibrahim gave on 20th November 1992 two lectures upon invitation from Dar al-Athar al-Islamiyyah (DAI) as part of its cultural cooperation with KFAS. Professor Luma'ī’s lecture was entitled "Geometrical Analysis of the Principles of Islamic Building Design". The following is a summary of that lecture.

The Arab region has provided an ideal environment for several influences to interact. It is at once an architectural laboratory and a cross-cultural arena of civilizations, by word as well as by deed, defining the future of human destiny coming forth in and from the Holy Book. It is there that the hereditary concept of a home’s shape or a mosque’s type, together with administration and government centres and various kinds of markets, has crystallized - the outcome of which is an integrated architectural fabric.

Despite the fact that, during early Islam, Arab architecture had derived much from neighbouring cultures, it very soon established its own characteristic form throughout the entire Arab and Islamic state. Variety and unity are the two most outstanding qualities of the Arab culture, whose essence is deeply rooted in the concept of Islam. Rejuvenation is the third. Ancient architecture used geometrical principles derived from nature and the cosmos, and applied them to buildings. The ancient Egyptians, for instance, believed that buildings corresponded to a divine world order, and consequently used the "Osiris triangle," signifying eternity, whose sides (3:4:5) total the number 12, which constituted the ancient Egyptian measurement unit. Their geometrical design for space division was prepared by using a rope of 12 knots of equal lengths. The Egyptian system of design had relied also on the cubit, which is about 49.9 cm. The Egyptian and the Assyrian measurement system and, before them, the Babylonian and the Sumerian, divided the circumference to 6, 12, and 24 equal parts linked with the cosmological system of the zodiac. These constituted the foundations of the Greco-Roman measurement system. The Greeks developed their own geometrical relations and data, whereby Euclid described the "Golden Ratio" of 1+5/2. With Judaism the hexagon becomes the symbol of creation and perfection, and with Christianity, the equilateral triangle becomes the geometrical symbol of the Trinity; while in Sufism, the octagon represents the arena of the divine throne - a concept which, surprisingly enough, is central in the designs of many plans of Buddhist temples.

The sphere has become the primary symbol of a geometrical measurement unit through its divisibility into various shapes representing the foundation of the proportion laws. Of these, there are five regular shapes, known as Platonic. In the Islamic world, however, geometrical sciences have become a significant tradition of architecture. During the period from the 4th to the 10th centuries of the Hijra, even Arab philosophers, such as al-Farabi, al-Kindi, and al-Bouzjani, contributed to the architectural geometrical theory. Abu al-Wafa, another philosopher, demonstrated, for instance, the method of dividing a single square into twenty others. Al-Bouzjani also describes the spherical shapes into which a circle is divisible, such as the triangle, the square and star shapes. Both the circle and the square fit into each other in what is known as "squaring the circle".

Issam al-Said demonstrated the practical and the useful method of dividing a geometrical network into repeated units from which architectural figures emerge. Identical, repeated units, such as squares within circles or circles and triangles within squares, would create additional, almost infinite shapes through tangent surfaces.
Very early in the history of Islamic art, repetition could produce marvels.

Such geometrical idea of recurrent, interrelated squares within a circle is the basis of the idea of pendentives applied in most Islamic buildings. Architects of that period went as far as applying "polygonal" shapes revolving round the centre of the circle and producing coherent, concentric configurations. In the Dome of the Rock, Jerusalem, built between 688-92, the plan of the dome clearly demonstrates the circlesquare relation, from which the octagonal shape emanated. Volume is indicated by the exterior form of the building: the dome, which is the "celestial sphere" intermingles with the octagon, which represents Earth. By analysing the plan of the structure, we observe the fact that the octagon design was based on circling the square, and on the circle meeting with the angles of the square, and so on. Thus, all buttresses are positioned upon the angles of the hexagon, in addition to the relation between the interior and the exterior squares of the root for each square side.

Al-AshrafIyyah School (15th c.) is another example. Having been struck by an earthquake in 1545, not much of it has survived. Analysing its plan, however, we discover a simple geometrical relation (2:1) between length and width. The length is 14:39 metres, half of which, the width, is the basic recurrent unit of construction: the depth of the south wall is 7:20, so that of the northern hall and of the school courtyard.

Studying several buildings from various Islamic periods in Egypt, it has become clear that architectural design is based on geometrical concepts rooted in the square and the circle. Architects, moreover, have applied simple numerical ratios, such as 1:1, 1:2, 3:4; the proportion known as "the addition sequence" [i.e., the Fibonacci series to modern mathematicians-editor's comment]; 1:2, 3:2, 5:3, 8:5, 13:8; and the rectangle of the Golden Ratios and of the fifth root. Actual representations of these ratios are manifested in the Ibn Tulun Mosque; al-Azhar Mosque; Bab Zuwayla; al-Zahir Baybars Mosque; Yunis al-Dwader Dome; Sultan Qaytbay Madrasa, Qansour Abu-Said Dome.

Al-Azhar Mosque was built in 970 A.D. and occupies a rectangular area consisting of a central courtyard [sahba] surrounded by three porticoes [hijaab]. The main portico is divided into five aisles enveloped by five arcades which are parallel to the south wall. There are two more side porticoes, each of which consists of ten aisles enclosed within eleven arcades, also parallel to the south wall. Significantly, the mosque contains eight doors.

The Yunis al-Dwader Dome (b. 1382 A.D.) bears the name of its patron. The plan of the dome is a square area, and in the middle of its main wall is a niche [mihrab]. Analysis of the plan reveals a geometrical design based upon the numerical ratio known as 'the addition sequence', i.e., 1:2:5.

The facade consists of: 1) a square in which the length of each side equals half the length of the main wall; 2) an arch between the midpoint and the square and a lateral wall; 3) a rectangle half of the square between the head pivot and the transitional area of the dome; 4) a transitional area; and 5) an equilateral triangle connecting the dome's head pivot with the upper angles of the square.

The Dome's section consists of: 1) a rectangle of the proportion 1:2; 2) a square which is the locus of the dome; 3) an arc crossing the square diagonal and defining the interior surface of the dome; 4) an arc, half the diameter of the dome vault, with a 60° angle; and 5) a circle defining the internal curvature of the dome.

The design of the Sultan Qaytbay Madrasa, built between 1472-74, on the other hand, included designed an adjacent burial ground for him and his family. The school consists of a central hall, flanked by two large iwans and two side chambers. The ceiling of the hall is made of wood and coated with gold. The plan of this madrasa also includes a schoolroom, a public fountain, and a dome.

The internal layout of the madrasa depends upon symmetrical recesses in the form of windows and niches. The analysis of its plan shows a centre formed by the intersection of the two diagonals of the square, from which two circles can be drawn, one of which is based upon the diagonal, the other upon the radius. An arch touches the very point at which the two circles also touch, and curves towards the court opposite the qibla wall.

The courtyard has 2 circles on each side, and its corners are touched by yet another circle, which intersects the vertical axis of the central square and another horizontal circle, thus specifying the zenith of the qibla wall. Another arch specifies the interface of the south sitting room wall, and also the other sitting room walls. A fourth arch defines the end of the northwestern hall.

The analysis of the section reveals a similar abundance of arches defining the design format of the wide edifice, connecting centre with extremities and culminating in the lantern niche.

The front wall consists of the entrance and the public fountain. Its square shape is the starting point of four arches connecting it with the walls, the minaret, and the dome. An arch starting from the top of the central wall curves upwards to the top of the minaret. A parallel arch defines the highest point of the dome against the top of the third part of the minaret and the top of the entrance wall.

For the Muslim architect, these geometrical configurations meant an infinite genesis of sublime shapes. They truthfully express a creative relationship between man, his environment, originality, and craftsmanship. Islam, with its ever lively, innate dynamic, has been the source of inspiration in all these structures and over all these centuries.