THE MOSQUE

HISTORY, ARCHITECTURAL DEVELOPMENT & REGIONAL DIVERSITY

EDITED BY MARTIN FRISHMAN AND HASAN-UDDIN KHAN

TEXTS BY

MOHAMMAD AL-ASAD ◆ MOHAMMED ARKOUN ◆ ANTONIO FERNÁNDEZ-PUERTAS

MARTIN FRISHMAN ◆ OLEG GRABAR ◆ PERWEEN HASAN ◆ MARK HORTON

HASAN-UDDIN KHAN ◆ DOĞAN KUBAN ◆ LUO XIAOWEI ◆ GÜLRU NECIPOĞLU

BERNARD O'KANE ◆ HUGH O'NEILL ◆ LABELLE PRUSSIN

ISMAIL SERAGELDIN ◆ WHEELER M. THACKSTON

with 378 illustrations, 170 in color

THAMES AND HUDSON

Page 1

The bismillah *as part of a 'maze' designed and written in Kufic script by the Ottoman calligrapher Ahmet Qarahisari (died 1555). The accompanying text is a quotation from the Qur'an (112:1–4): 'Say, He is the one God, the eternal God, He begets none, neither is He begotten, and none is equal to Him.'*

Frontispiece, page 2

The Ka'ba at Mecca as the centre of the Islamic world: frontispiece from an atlas of 1551 showing the orientation of Muslim countries in relation to Mecca, the vital determining factor in establishing the direction of prayer.

Pages 11, 71, 241

Carved ornament incorporating the name Allah within an interlaced star motif, from the north minaret of the Mosque of al-Hakim (990–1013), Cairo.

MIDL
NA
4670
M68
1994

Any copy of this book issued by the publisher as a paperback is sold subject to the condition that it shall not by way of trade or otherwise be lent, resold, hired out or otherwise circulated without the publisher's prior consent in any form of binding or cover other than that in which it is published and without a similar condition including these words being imposed on a subsequent purchaser.

© 1994 Thames and Hudson Ltd, London

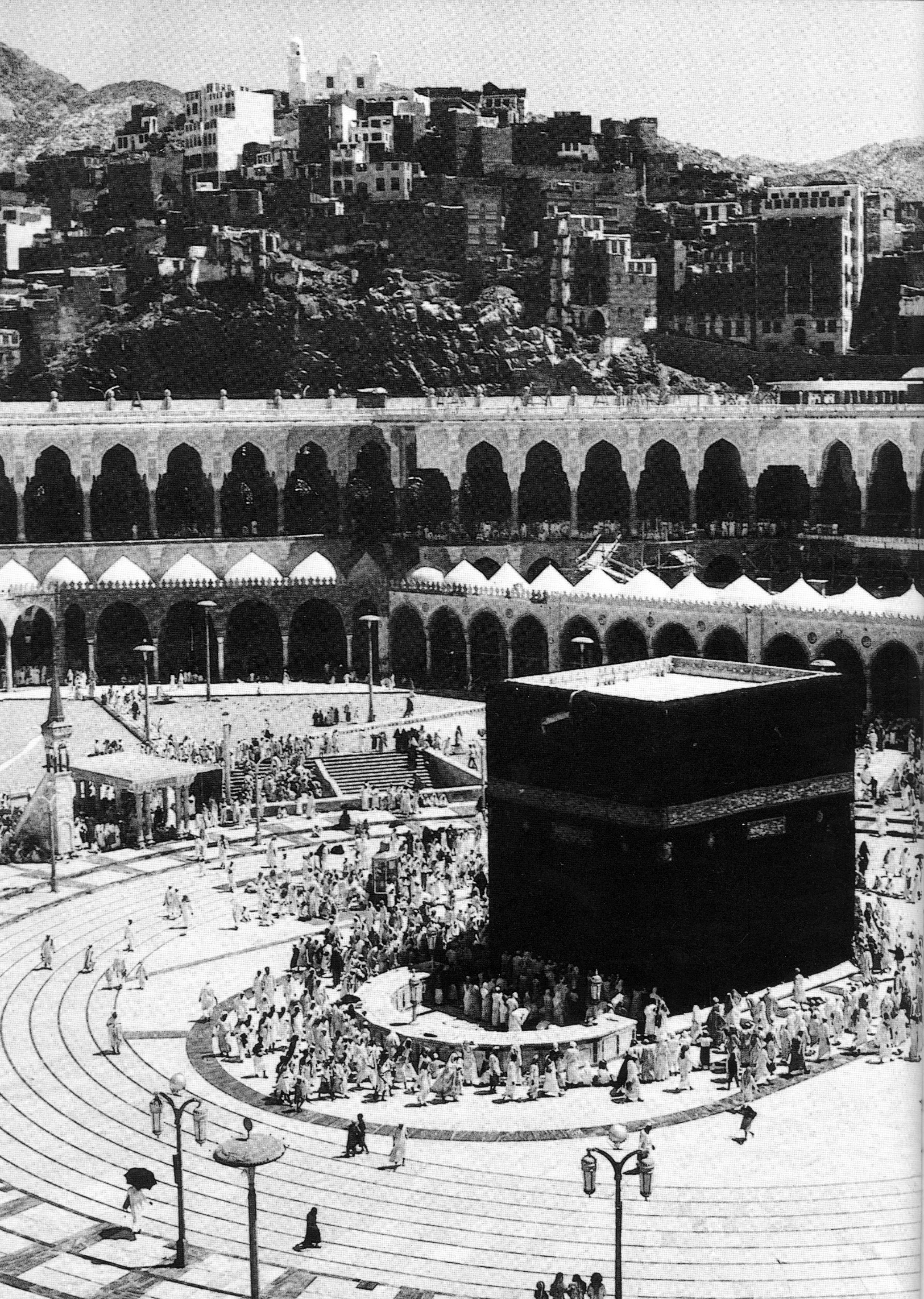
First published in the United States of America in 1994 by
Thames and Hudson Inc., 500 Fifth Avenue,
New York, New York 10110

Library of Congress Catalog Card Number 94-60347

ISBN 0-500-34133-8

All Rights Reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording or any other information storage and retrieval system, without prior permission in writing from the publisher.

Printed and bound in Singapore



- 1 -
ISLAM AND THE FORM OF THE MOSQUE

MARTIN FRISHMAN

ISLAM follows Judaism and Christianity as the third and last of the great monotheistic religions. Whereas historical events allow the inception of both Christianity and Islam to be dated quite precisely, in the case of Judaism this is more difficult. There is little historical evidence to show that monotheism was the result of a long evolutionary development, but the advent of Zoroastrianism in the sixth century BC may be taken as representing the first serious attempt to establish a universal monotheistic religion.[1] If we take monotheism to mean belief in one god to the exclusion of all others, only one pre-Judaic example is known, namely Akhenaton's action in abolishing the pantheon of ancient Egypt and substituting the concept of Aton as the 'creator of mankind'.[2] However, this phenomenon lasted for only eleven years, and after the death of Akhenaton in 1362 BC the concept of a single creative force was lost and did not reappear until the time of Moses, many centuries later.

In the third millennium BC the civilized settlements of southern Babylonia, Egypt, the middle Euphrates, Palestine and Syria were invaded by tribesmen known as the Habiru or Apiru, who can almost certainly be identified with the Arabs. (The only identifiable meaning of 'Arab' comes from *abir*, nomad.) The invaders, who were of Semitic stock, inherited and developed the ancient civilization of Sumer and Babylon. The term 'semitic' was coined from Shem, son of Noah and reputed ancestor of the inhabitants of Arabia. It is believed that Arabs from central and southern Arabia invaded the settled lands of the Fertile Crescent[3] and that the Hebrews who feature the Old Testament were Arabs and part of the population of Arabia, which also included the Israelite Hebrews under the leadership of Joshua and other tribal chieftains.

The Hebrew people were inspired by a religious belief dating back to Moses, who consolidated and unified the tribes in the conviction that they constituted a people under the special care and protection of a pastoral deity known as Yahweh, whose name appears in the English translation of the Hebrew scriptures as 'Jehovah'. To what extent Moses was the creator of this belief is difficult to establish, but certainly Yahweh was a deity familiar to the Semites. It is probable that some time before Moses a pastoral deity or '*mysterium tremendum*' called Yahweh was known among the nomadic tribes of Arabia and that Moses might not have succeeded in his mission had he been unable to invoke an already accepted Supreme Being or 'Lord God of your fathers' (Exodus, iii, 16). Moses was responsible for giving Yahweh a special place in the allegiance of the nation, but it was not till long after him and the wanderings of the Israelites that they came to accept the concept of a universal, transcendental, ethical creator of the universe – the post-exilic phenomenon which gave Judaism the distinction of becoming the first permanent monotheistic religion. The god of the Hebrew people differed from the tribal All Father in not being a remote figure uninterested in human affairs, but one who was brought into the most intimate covenant with the Hebrew clans, thereby welding them into a theocratic nation. Thus the All Father of the desert became the God of Sinai and, unlike the situation in Egypt after Akhenaton, was established permanently. The utterances of the biblical prophets from the eighth century BC onwards bear the stamp of originality, of opposition to contemporary ideas, and of the word of God finding expression through the medium of human intermediaries. Under the influence of the prophets, the monotheistic tendency and tradition were fostered and developed in Israel in a manner seen nowhere else in the ancient world.

Here we see the establishment of two phenomena that would play a fundamental role in the foundation of Islam – the concept of monotheism both as a religious belief and as a force providing the spiritual backbone of a nation, and the concept of prophethood. In the intervening centuries only one other vital contributing factor – the apostolic concept derived from Christianity – was yet to come. As the concept of prophethood was established by Moses and the tribes of Israel, so the concept of apostleship was created in the time of Christ. The title of Apostle ('messenger') was bestowed on the twelve disciples sent forth to preach the Gospel. The close similarity of the role of the Hebrew prophets such as Isaiah, Jeremiah, Ezekiel or Daniel as interpreters of God's will, and that of the New Testament evangelists Matthew, Mark, Luke and John who spread the Gospel of Christ, might account for the two frequently encountered versions of the Muslim *shahada* or creed as translated from Arabic into English. One states 'There is no God but the God and Muhammad is his Prophet' and the other that 'There is no God but the God and Muhammad is his Messenger.' The difference, if there is any, is so marginal as to be of no significance.

The life of the Prophet Muhammad

Muhammad was one of the great figures of history. He had an overwhelming conviction that there was but one God and that there should be one community of believers. The fact that he was the one

Facing page
The Ka'ba in Mecca, the focal point of the hajj *or pilgrimage; the black-draped monument is of supreme symbolic significance for all Muslims (see p. 32).*

chosen to receive the word of God, as embodied later in the Qur'an, is in itself testimony to his monumental spiritual status in relation to his followers, while his remarkable qualities as statesmen and political leader are demonstrated by his ability, against the greatest adversity, to inspire and lead the Arab people in a manner never achieved before or since. It is rather as though Solomon's spiritual guidance of the People of Israel coupled with Joshua's military leadership centuries later were telescoped into the life of one man. Certainly Muhammad's achievements – the establishment of a new religion, the consolidation of that faith in the form of a new nation of believers and the expansion of that nation through massive conquest within a single lifetime – are unique in history.

Born in Mecca in June 570, Muhammad was the posthumous son of a trader and camel driver named Abd' Allah. The main civilizations of the world into which he was born were Romano-Byzantine, Persian and that of Arabia Felix (Yemen). Mecca, like Petra and Palmyra before, had become prosperous thanks to its position at the centre of one of the age-old trade routes which traversed Arabia in all directions and the existence of which provides a clear indication that regular commerce was important in providing a link between the desert and the sown land.

Trading and raiding formed the basis of the economic and social life of the early Arabs, and a symbiotic relationship existed between the settled and nomadic peoples, since the latter demanded payment for facilitating safe conduct across empty desert lands, and thus trading profits were widely distributed. Trading constituted the first part of Muhammad's life. The merchants of Mecca, who had commercial links with both Persians and Byzantines, sent caravans twice yearly to both north and south, as well as having dealings with Abyssinia on the other side of the Red Sea. The Quraysh, the tribe to which Muhammad belonged, formed companies which shared in the profits of these ventures and he himself travelled to Syria with a caravan carrying wares dispatched by Khadija, a wealthy widow whom he later married and who until her death in 619 was his sole wife.

The population of Mecca consisted of pagan Arabs, Jews and Christians. The pagan Arab cared little for his religious duties. Sacrifices were popular and communal feasts and prophylactic rites were fairly widely observed. Generally speaking, the Arab believed he could get whatever he needed by his own efforts and without help from the gods. A certain prestige was nevertheless attached to those towns and villages which were centres of pilgrimage for tribesmen who gathered to mark sacred occasions and from whom the custodians of holy places, especially in Mecca, derived their income. Clearly pagan custom has left an indelible mark on Islam in the form of the *hajj*, the required pilgrimage to Mecca. The heathenism of Muhammad's day was largely animistic and very similar to most primitive forms of religion mentioned in the Old Testament and, like the prophets of the Old Testament, Muhammad took steps to extinguish practices inconsistent with monotheism. The kissing or the stroking by hand of a stone, in this case the Ka'ba in Mecca, was a pagan act of honouring the gods and bestowing holiness upon the worshipper.[4] While no such concepts were acceptable under Judaism until Isaiah, it was believed that the blood of the sacrificial goat carried away man's sins on the Day of Atonement, and to this day in the Christian sphere the sacramental bread and wine of the Eucharist reflect aspects of man's psyche which are so deeply rooted that they are difficult to remove. In the final analysis all three monotheistic religions failed to extirpate entirely practices inherited from earlier traditions.

A substantial part of the population of Arabia was Jewish, and the sixth century BC saw the founding of large Jewish settlements in Mesopotamia, and later – fleeing repression under the Romans – the Jews found asylum amongst the Arabs. Christianity and Christian domination were established by St Paul in Damascus and by St Thomas with the founding of the Church in Edessa. The Hijaz Bedouin were mainly pagan, though the surrounding tribes were Christian, their chief centres being Yemen in the south, Syria in the north, Hira in the east and Abyssinia in the west. The Christian community in Mecca belonged, like Muhammad, to the tribe of the Quraysh. Endless internal conflicts between Monophysites and Nestorian Christians led to the end of Christian Arab rule and with it the beginning of the Arab hatred of the Greeks, at whose hands they had suffered tyranny and injustice; as a result, Christianity and Byzantium came to be regarded by the Arabs as representing perfidy, and the longstanding enmity led ultimately to the capture of Constantinople by the Ottoman forces in 1453. The extraordinary rapidity of the Arab advance eastward and westward was due, at least in part, to the co-operation of local Christians disgusted with Byzantine cruelty and oppression. Although the Arabs had to defeat a number of disaffected garrison troops, this proved a comparatively easy task because in Syria the population welcomed them and joined forces with them, while in Egypt they made a separate peace stipulating that the power of Byzantium must be irrevocably destroyed. It was not until the Muslim Arabs encountered opposition further west that their expansion met with any serious check. In Egypt and the Arab world they were accepted as deliverers.

The birth of Islam

The year 610 marks the birth of Islam because it was the year of the Revelation – namely the Prophet's first encounter with the Angel Gabriel, who commanded him to 'Read in the name of thy Lord who creates man from a clot of blood. Read and thy Lord is most generous, who taught by the pen, taught man what he knew not.' (Qur'an 96:1–4). The divine messages received by Muhammad which constitute the Qur'an began when he was around the age of forty, and it is not known whether any part of them was recorded during his lifetime. However, they were passed on by remembrancers, men who, with a lifetime of training, had acquired formidable powers of memorizing texts. The Qur'an was certainly written down shortly after the death of the Prophet, in the time of the first Orthodox Caliph, Abu Bakr, and the text was later codified under Caliph Uthman between 644 and 656, thus giving the content of the Muslim Holy Book the form in which it is known today.

Inspired by the messages he received, Muhammad began to preach to the people of Mecca, exhorting them to abandon their idols and submit to the one and indivisible God. However, he gained few followers and provoked much hostility, so when invited to go to Yathrib, an oasis town 340 km (212 miles) to the north-west, he journeyed there in 622. Yathrib, which was later renamed Madinat al-Nabi or Medina, the City of the Prophet, was Muhammad's place of residence until his death in 632. The year of his journey, the *hijra*, marked the decisive moment in his prophetic mission and was proclaimed by the first generation of Muslims as the first year of the Muslim Era. While in Mecca, Muhammad had preached as a private citizen, in Medina he became a religious leader and head of a community, as well as wielding both political and military power. Muhammad's legacy included a new faith in one God and the Qur'an, as well as, through wise alliance and success in war, a new state dominating western Arabia. He also established the Muslim belief that he is the last of God's Prophets,[5] who – by founding Islam – completed the work begun in God's name by Abraham, Moses, David and Christ and established the ultimate monotheistic faith.

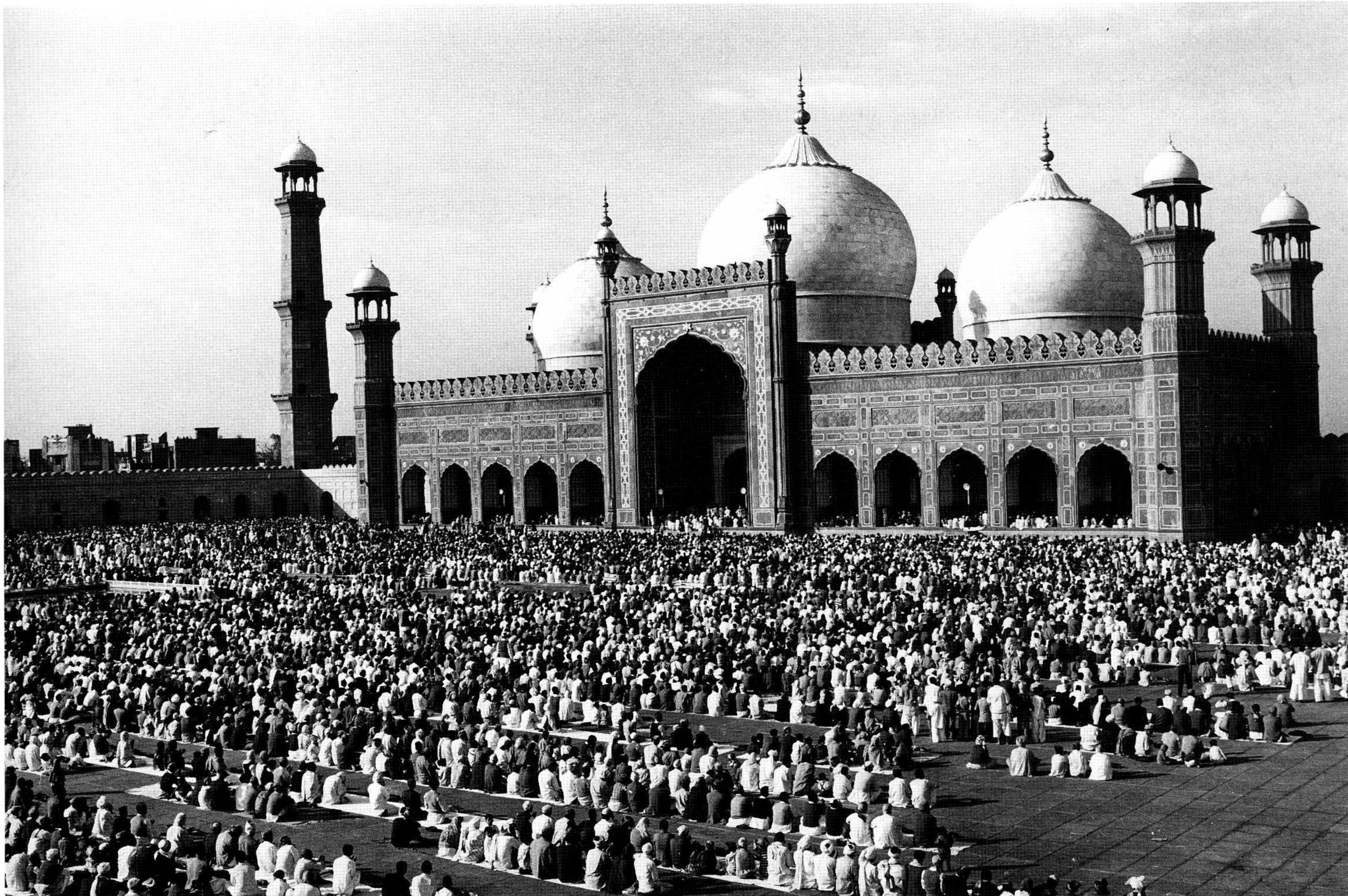
The courtyard of the Badshahi Mosque, Lahore, Pakistan, filled with worshippers at the annual festival of Eid, marking the end of the period of fasting during Ramadan.

The Basis of Muslim Belief

The Qur'an

For the Muslim the Qur'an explains all that man needs to know in order to live a normal and spiritual life; at the same time its precepts present him with a massive spiritual challenge, because nothing stands between the individual and god and there is no one to intercede for him. Forgiveness cannot be won by merit, but flows only from God's grace, though a man may make himself worthy of forgiveness by leading a life devoted to serving God. There is always the stark choice between the path that leads to Paradise and that which leads to disaster on the Day of Judgment – a concept that comes very close to that enshrined in medieval Christian belief.

The text of the Qur'an is divided into chapters (*suras*), arranged for the most part in descending order of length; each begins with the same construct, known as the *bismillah*, which is the pronouncement 'In the name of Allah, the Merciful, the Compassionate'. The earlier Meccan *suras* are visionary in nature, devoted to proclaiming the beneficence of one God and the judgment awaiting all men, while those of the Medina period move from the purely theological to the legal and socio-political field. This change of emphasis was appropriate because of the necessity of welding together and structuring the new Muslim community resident in Medina.



Among non-Muslims and non-Arabic-speaking people there has been a tendency to treat the Qur'an simply as a book of instruction on how Muslims should behave and what they should believe. This is perhaps largely due to a failure to appreciate that, since the Arabic *qur'an* means not simply 'reading' but 'recitation', the act of reciting the text represents a commitment to worship. The act of worship therefore serves to reaffirm the manner of the original revelation, making it the permanent well-spring of the Muslim community. Although the Qur'an contains no accounts of miracles in the New Testament sense, the book itself constitutes a miracle by virtue of its origin; in the words of the medieval scholar al-Ghazzali, 'There is no end to its miracles, it is ever fresh and new to the reciters.' With a few exceptions, translations from Arabic have been made only in recent times, perhaps because the text was formerly considered 'untranslatable', and Arabic remains the *lingua franca* of Muslim scholarship and worship.

In providing an exposition of what Muslims should believe and how they should conduct their lives, the Qur'an – like the Jewish Talmud – sets forth a compendium of duties, but unlike the Christian scriptures it formulates laws according to which believers should live. These are clearly defined in the 'five pillars' or fundamental observances which form the basis of the Muslim faith:

1 The acceptance of the *shahada*: 'There is no God but the God and Muhammad is his Messenger.' This formula comprises the irreducible minimum of Muslim belief, and it is widely accepted that anyone who utters the *shahada* may be regarded as a Muslim.

2 Prayer, or *namaz*, is prescribed to be performed five times per day; at dawn, around midday, in the afternoon, at sunset, and at night before going to bed. It may take the form of *dua* (personal and spontaneous prayer) or *salat* (ritual prayer in the company of others at home or at the mosque). It is also prescribed that every adult male join in communal prayers at midday on Friday, a practice which explains the use of the terms *masjid-i juma* (Friday mosque) and *jami masjid* (congregational mosque). The act of prayer must be preceded by self-purification through ritual ablutions and must be performed facing in the direction of Mecca. The ritual bowings and prostration accompanying the recitation of prayers clearly demonstrate the significance of the word Islam, meaning 'submission to God's will' by word of mouth and physical gesture.

3 Alms, or *zakat* (a term derived from the Arabic *zaka*, meaning 'pure'). The Qur'an stresses that the giving of alms is one of the chief virtues of the true believer, the generally accepted amount being one-fortieth of a Muslim's annual income in cash or kind. Since all revenue from alms was intended to benefit the poor and to pay for certain activities within a community, the very act of giving demonstrated the believer's sense of social responsibility, thus leaving acquired wealth free of disrepute.

4 Fasting. All believers are required to observe the ninth lunar month of the Muslim year, Ramadan, as a period of fasting in which they abstain from eating, drinking, smoking and sexual relations from sunrise to sunset (Qur'an 2:185–6). The purpose is to subjugate the body to the spirit and to fortify the will through mental discipline, thus helping the believer to come nearer to God. The difference between this practice and the Jewish observance of the annual Day of Atonement (Yom Kippur) is one of time – the requirement being limited to total fasting for a full twenty-four hours in the case of the latter – but the concept of the intensification of prayer through abstention is essentially the same.

5 Pilgrimage. The *hajj*, or pilgrimage to Mecca, birthplace of the Prophet Muhammad and the place where Muslims believe Abraham built the house of Adam, must be performed at least once in the lifetime of every Muslim, health and means permitting (Qur'an 3:97).

The 'hadith'

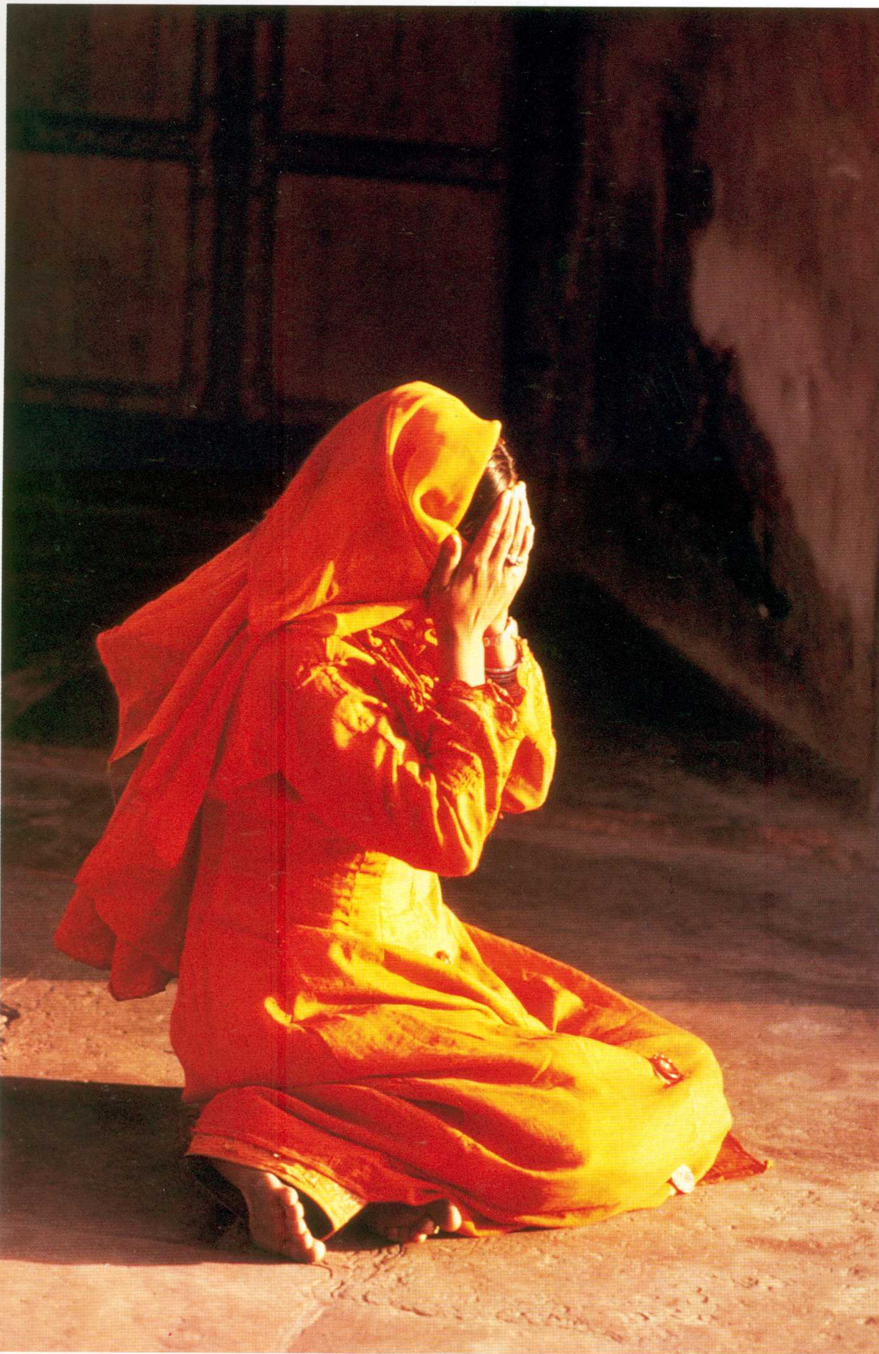
Next in importance after the Qur'an as a source of guidance are the *hadith*, the 'traditions' or 'sayings' relating to the life of Muhammad. Observations made during his lifetime were not recorded for posterity because writing was then an unusual accomplishment, and since they were handed down orally it is possible that, as sects and rivalries sprang up, *hadith* began to be interpreted in a manner which would support partisan interests or even to be invented for this purpose. Subsequent efforts by the theologians and jurists – the *ulama* – to distinguish the genuine from the spurious raised questions as to what tradition actually is and how powerful it should be. The problem naturally is that tradition, if slavishly followed, could keep the Muslim world permanently constrained by its past.

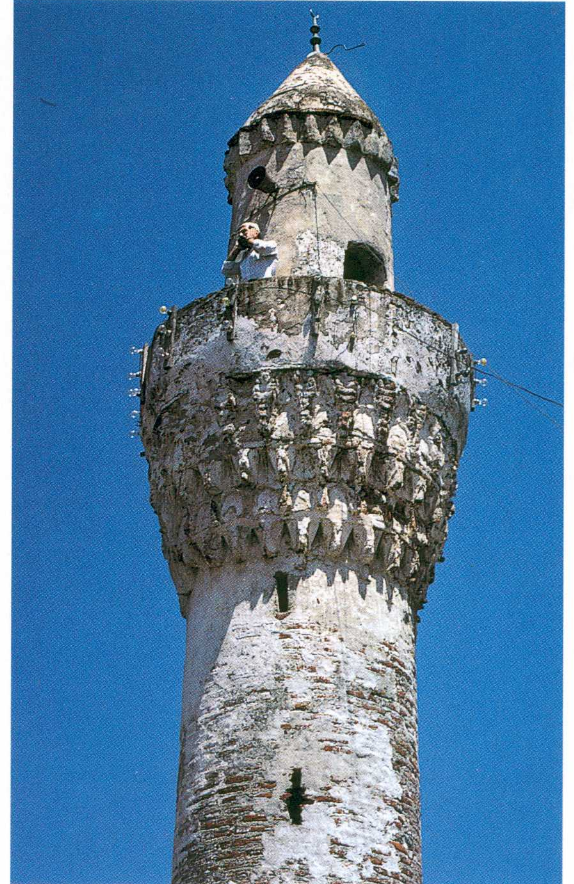
Orthodox theory holds that there are two kinds of revelation: that which is recited – the Qur'an; and that which is read but not recited – *hadith*. The view that both are equal in importance has been firmly rejected by those who feel that, if the Companions of the Prophet had considered them to be so, they would have written down his sayings. Hence, whereas the Qur'an was regarded as the word of God and was recorded shortly after Muhammad's death, the *hadith* remained unrecorded for two centuries. A basic consideration must be the fact that any such oral history set down so long after the event is unlikely to be fully accurate, not out of an intention to falsify, but because memory is fallible. Nevertheless, by the end of the third century of the Muslim Era, six great *hadith* collections had been compiled.[6] The problem which arises is that some orthodox Sunni opinion does place the *hadith* on the same level as the Qur'an, on the premise that the Companions learned the sayings directly from Muhammad and that the words have since been passed on in an unbroken line of succession down to any imam today; thus the *hadith* can claim to have the same authority as the

Facing page
The complex three-dimensional geometry of the muqarnas *– an architectural feature unique to Islam – is clearly displayed in a detail of the vaulting in the south-west* iwan *of the Friday Mosque in Isfahan, added during the Safavid period.*

WORSHIP

The act of prayer, whether performed by an individual or collectively by a congregation, is one of the five pillars of Islam, and reciting the holy text of the Qur'an represents an act of commitment to worship.





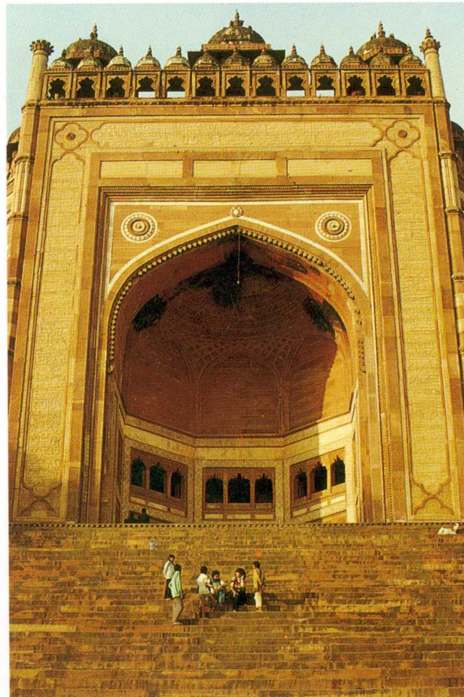
(Above) A woman at prayer in the Friday Mosque, Delhi.

(Above right) A minaret in Yemen, showing the gallery from which the muezzin is seen calling the faithful to prayer.

(Right) A group of men reading the Qur'an in the Arwa Mosque, Jiblah, Yemen.

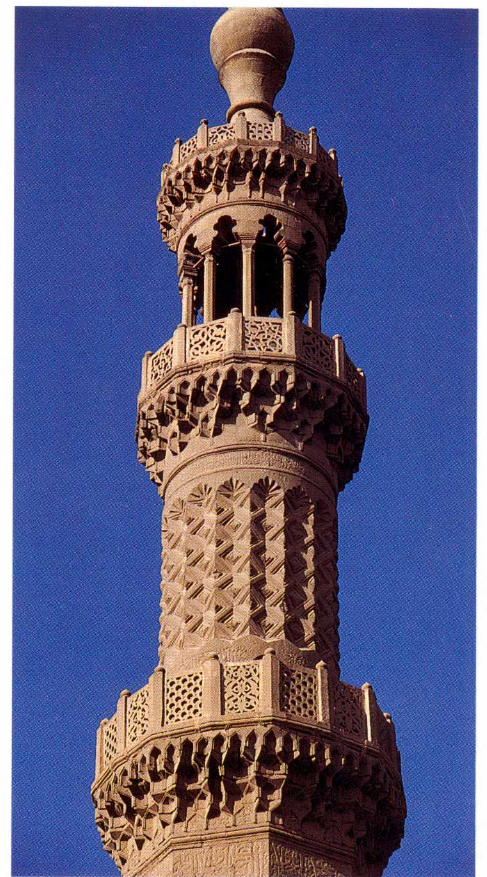
THE PORTAL

The entrance portal is a prominent architectural feature of most major mosques. Among the many variants are: (right) the Mosque of Sultan Ahmet (Blue Mosque), Istanbul, built in the early seventeenth century, with (below) a detail of the muqarnas *in the portal of the Süleymaniye complex, Istanbul, 1550–7; (bottom left) the Mosque of Barquq, Cairo, dating from the Abbasid period in the late eighth century; (bottom centre) the Buland Darwaza (Victory Gate) of the Jami Masjid, Fatehpur Sikri, 1596; and (bottom right) the Great Mosque, Seville, 1171–6.*



As the principal vertical feature of most mosques, the minaret provides a local landmark as well as allowing the voice of the muezzin to carry over a considerable distance when calling the faithful to prayer. Architectural styles down the centuries have been widely different in various regions, as seen in the representative selection of regional types shown here for comparison.

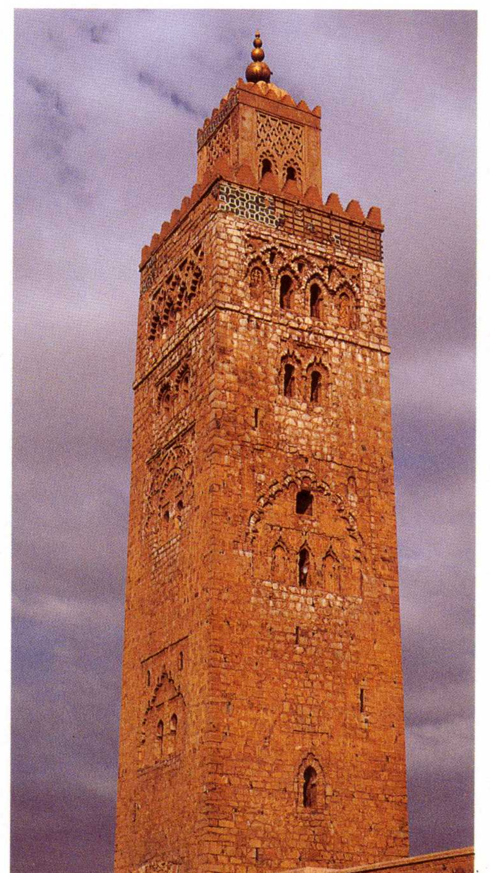
Cairo: the Mosque of Ahmad ibn Tulun, Tulunid period, 876–9.



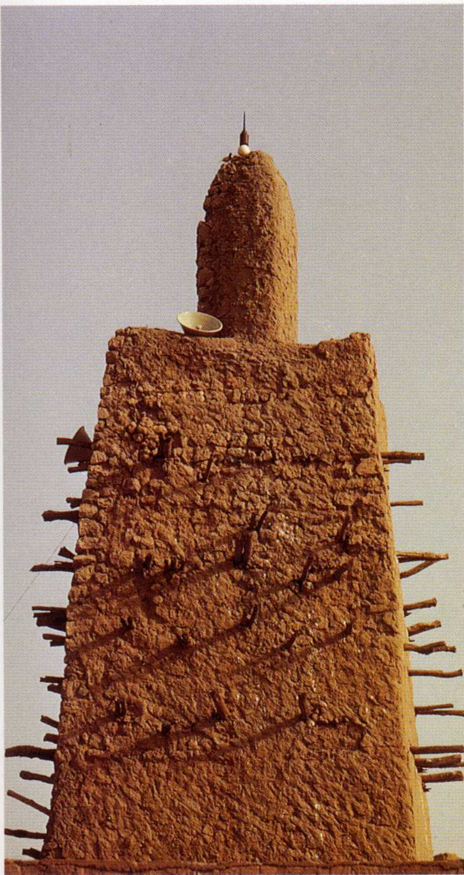
Cairo: the Mosque of Amir Qurqumas, late Mamluk period, 1506.

Diyarbakir, Turkey: the Ayni Minare Mosque, early Ottoman period, c. 1489.

San'a, Yemen: the Mosque of Al-Bakiriyya, Ottoman period, 1598.

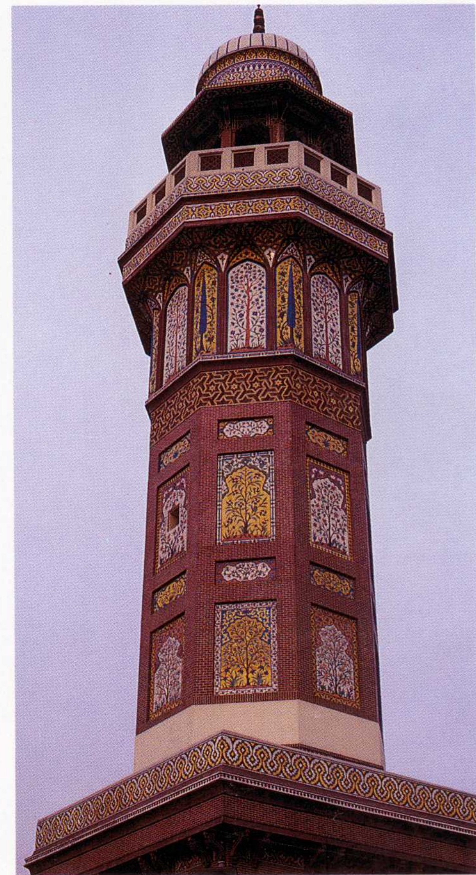


Marrakesh, Morocco: Kutubiyya Mosque, Almohad period, twelfth century.



Timbuktu, Mali: DjinguereBer Mosque, Songhay period, fourteenth century.

Beni-Isguen, Algeria: a village mosque in the Mzab Saharan style.

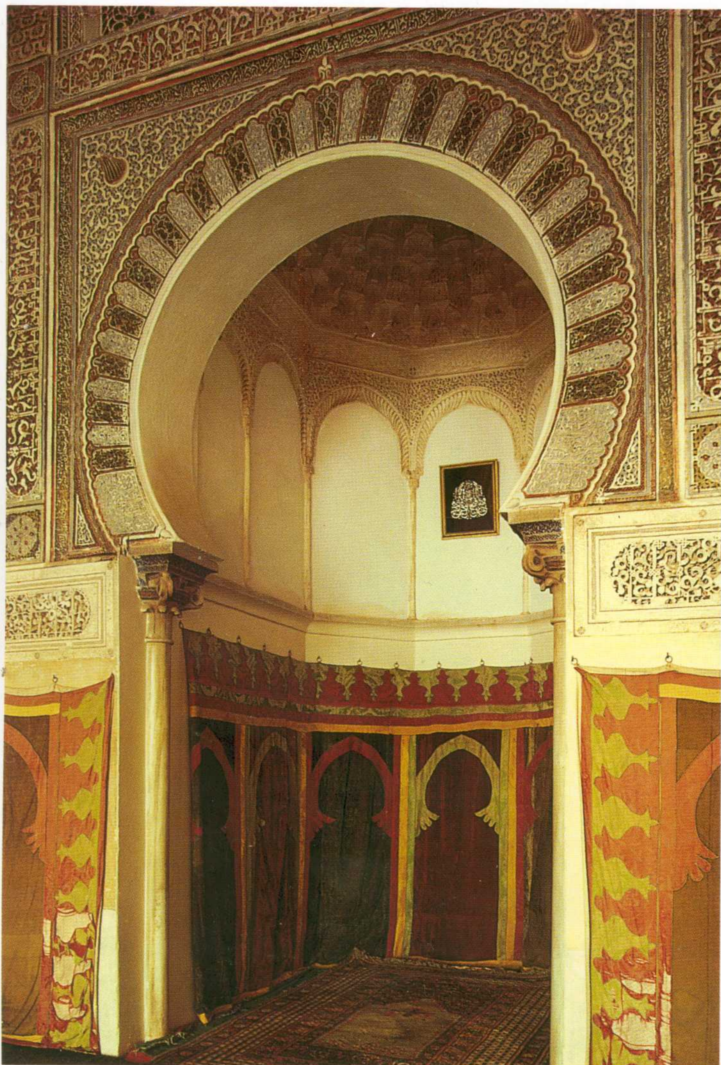


Lahore, Pakistan: Wazir Khan Mosque, Mughal period, 1634.

Bukhara, Uzbekistan: the Kalyan (Friday) Mosque, 1514.

Turfan, Xinjiang Province, western China: Amin Mosque, 1778.

Beijing, China: Niu Jie (Ox Street) Mosque, founded in 1362 (renovated 1978).

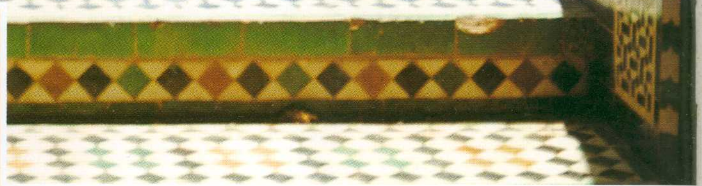
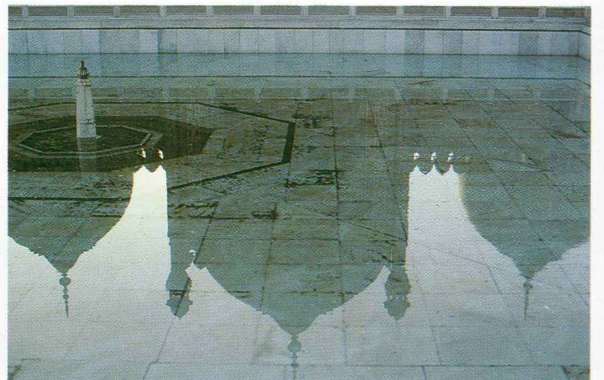


THE MIHRAB *AND THE* MINBAR

In mosque interiors the direction of Mecca is indicated by the qibla *wall, in which the* mihrab *niche is incorporated. As the focal point of the building, the* mihrab *is often its most elaborately decorated feature. Another important element is the* minbar, *or pulpit, from which the weekly oration (*khutba*) is delivered at Friday prayers; this is always placed to the right of the* mihrab.

(Top) The qibla iwan *in the Mosque of Sultan Hasan, Cairo, 1356–9 (with the* dikka *in the foreground). Examples of* mihrabs *in the contrasting styles are seen in the Great Mosque, Tlemcen, Algeria, completed 1136 (left), and the twentieth-century Jin Shi Fang Xie Mosque, Amoy, Beijing (above).*

(Opposite) The relationship of the mihrab *and* minbar *is clearly seen in the Great Mosque of Qairawan in Tunisia. The* mihrab *niche is decorated with marble panels featuring perforated vegetal and floral designs; these were added in 862, thirty years after the building was completed.*

Qur'an because the texts constitute a necessary medium for a proper understanding of the Holy Book. However, if the *ulama* of today seek to enforce blind obedience to a chain of authority in which they constitute the last link, a situation arises which, according to some Muslim scholars, is little different from ancestor worship.

The '*sharia*'

Third in the line of essential concepts is the *sharia* or the law. The original meaning of the Arabic word *sharia* was the 'path leading to the water', which in turn, and in its historical context, meant the 'way to the source of life'. The *sharia* grew out of the attempts made by early Muslims, as they confronted immediate social and political problems, to devise a legal system in keeping with the code of behaviour called for by the Qur'an and the *hadith*.

Scholars developed these systems by treating the Qur'an as containing the general principles by which all matters should be regulated, and where the meaning of the Qur'an was imprecise they sought clarification from the *hadith*. Thus the foundations of the *sharia* were the clear and unambiguous commands and prohibitions to be found in these sources. With the passage of time, scholars came to agree increasingly on the basic laws and the principle of *ijma*, or consensus of the community of believers, was established. Once the community's legal experts had reached agreement on a particular point, the development of new ideas on that subject was forbidden. Steadily, more and more of the law was classified as *ijma*, and the rights of individual interpretation (*ijtihad*) became confined to the decreasing areas on which general agreement had not been reached. By the mid-tenth century, many Muslim scholars had closed the gate of *ijtihad*. Thereafter, if an imam were to question the meaning of a text in such a way as to challenge the interpretation supported by *ijma*, he committed *bid'a*, an act of innovation which was not permitted.

During the first three centuries the *sharia* grew slowly into a unified system drawing on much customary practice which had become embodied in the *hadith*. Whereas Western legal systems have grown out of and been moulded by society over the centuries, for Islam it is the law which has always moulded society. The *sharia* is comprehensive, embracing all human activities, defining man's relations with God and with his fellow men; consequently it combines what in Western societies comes under the separate headings of civil and criminal law. No formal and independent legal code was created, the *sharia* being more a formula according to which Muslims ought to behave and human actions are classified, in descending order, as: obligatory, meritorious, indifferent, reprehensible and forbidden.

Facing page
Water has always played an important role in the mosque, for ritual ablutions before prayers, as a reflector of the heavens, as a temperature regulator in a courtyard, and in pools and fountains, which are often architectural features of the great beauty.

(Above) The ablutions fountain in the courtyard of the Qarawiyyin Mosque, Fez, Morocco, 859; (below left) the ablutions fountain pavilion in the courtyard of the Mosque of Sultan Hasan, Cairo, 1356–9; (below right) the marble-covered domes of the Badshahi Mosque, Lahore, 1673–4, reflected in the great pool at the centre of the courtyard.

The '*sunna*'

Unlike Christianity, classical Islam had no priestly hierarchy and no central religious authority to promulgate official doctrine. Consequently, since no religious orthodoxy existed, there could be no heresy or deviation from authorized truth. The nearest approach to clergy in Islam are the theologians and jurists known as the *ulama* (the Arabic plural of *alim*, 'one who knows or possesses knowledge'). Although these learned men may as individuals or in schools formulate rules and interpret scripture, they have never been constituted as an authority to lay down religious dogma. The *ijma* represents in reality a consensus of opinion among the learned and the powerful. As such, its formulation in a coherent fashion so as to seem tangible and constant for any one place or time appears problematical. This was certainly the case in the earliest years of Islam, but over the centuries a great body of rules for correct behaviour and belief – the basis of Islamic law and theology – came into being and gained almost universal acceptance. Its guiding principle was respect for tradition – that is for the *sunna*, a term which in ancient Arabia meant 'ancestral precedent' or the 'custom of the tribe'. *Sunna* was equated with the practice and precept of the Prophet as transmitted by the relators of authentic tradition (*hadith*), and its authority was held to override all but that of the Qur'an itself. Those who accepted this principle were and are called Sunnis; today they account for up to 85 per cent of all Muslims.

The single most important sectarian division in the history of Islam is the one which separates Sunni and Shia believers. This situation arose following the assassination in 661 of Ali, the fourth and last of the Orthodox Caliphs, over the question of the succession to the caliphate. The Sunni view has always been that the office of Caliph must be filled by election and that all candidates must be members of Muhammad's tribe, the Quraysh. The Shias (literally 'partisans'), members of the 'party of Ali' (Shiat-Ali), believed that any true successor of Muhammad must be a direct descendant of the Prophet (Ali was a cousin and, by virtue of his marriage to Muhammad's daughter Fatima, also his son-in-law) and was deemed by them to be appointed by God, not man. The resulting sectarian division persists to this day, while historically there have been a number of distinct groups among the Shias. Iran, where Shiism was introduced in 1501 under Shah Ismail I, has maintained its allegiance ever since, thus accepting the principle that only an imam who is a direct descendant of the Prophet can be an authoritative source of guidance and an incarnation of the Divine Light, and hence infallible. Adherents of this doctrine are called Twelver Shias because they recognize twelve Imams – Ali and his immediate successors – the last of whom, Muhammad, disappeared in 873 at the age of four, though his return is expected. For their part the

Ismailis, whose spiritual leader is the Aga Khan, are so called because they regard Ismail as the rightful seventh Imam (rather than his younger brother, Musa, who is accepted by the Twelvers). In practical and ceremonial terms, a notable difference in Shia belief is the addition to the *shahada* of the words 'Ali is the Vice-Regent of God'.

Observance of tradition is considered good, and it is by the preservation of this observance that Sunni Islam is defined. The opposition lies in *bid'a* and is considered bad unless specifically shown to be good. This extreme traditionalist view is perhaps best illustrated by a saying attributed to Muhammad: 'The worst things are those that are novelties. Every novelty is an innovation, every innovation is an error, and every error leads to hellfire.' To condemn a doctrine as *bid'a* did not mean it was false by definition, but that it was an innovation and therefore represented a break with tradition (as distinct from the Christian concept of heresy as theological transgression).[7] Sunni officials differ on where to draw the line on matters that are social rather than theological, but a line there is and those who go beyond it are regarded as infidels. Under *sharia* law the denunciation of any doctrine as non-Islamic has meant that any Muslim professing such a doctrine was an apostate and accordingly subject to the utmost penalty of the law.[8] The sectarian on the other hand, though his beliefs might be at odds with the prevailing consensus, remained a Muslim and therefore retained his status and privileges under Muslim law.

In essence the Islamic state as conceived by orthodox Muslims is a religious polity established under divine law. This law is not limited to questions of belief and religious practice, but also deals with criminal and constitutional matters, as well as many other fields which in other societies would be regarded as the concern of the secular authorities. In an Islamic context there is no such thing as a separate secular authority and secular law, since religion and state are one.

The Mosque: Typology and Development

From their beginnings the monotheistic religions were opposed to the use of buildings specially designed to house the faithful at prayer. Paradoxically, for the true believer the very idea of such a building hinted at a concession to human vanity and, worse, to man's desire to introduce idolatrous worship of an object or edifice, rather than continue using the humble cave or shelter for communal prayer without distraction. Hence, the more impressive the building, the greater the anathema. In fact, the word 'ecclesiastical', today usually meaning 'of the church', is derived from the Greek *ekklesia*, a word meaning an assembly or gathering of people, especially in ancient Athens.

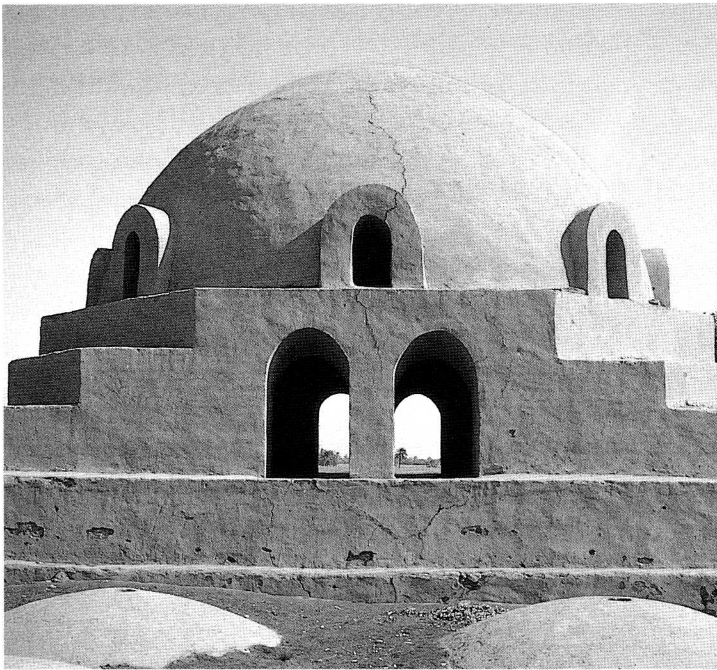
The monotheistic religions maintained their opposition until it dawned upon their leaders that any faith with no new followers would soon die out and that potential converts could be attracted by, amongst other things, some recognizable symbol such as an impressive building. Inevitably those who set foot on this path quickly came to realize that the more splendid they could make their sacred shrine, the greater would be its magnetism, and hence the deeper became the paradox.

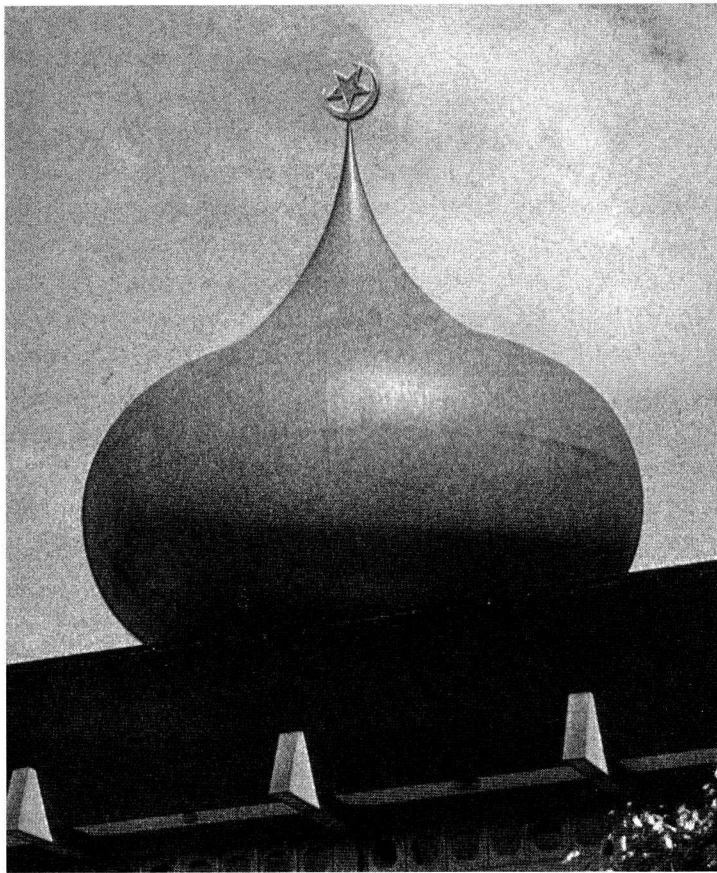
Certainly the desire for worldly splendour in its most visible form was less a characteristic of Islam than it was of Christianity. This was due in part to the fact that the liturgical and symbolic requirements of the Church call for more symbolic objects and artefacts than are required by either Judaism or Islam, since both faiths focus on 'the Book' as the sole and essential foundation for worship. Besides its role as the place for the usual congregational offices, the church is also used for weddings, confirmations, confessions, baptisms, the veneration of holy relics and so on, none of which is associated with the mosque. In many instances, however, the mosque was the focal point of a complex of buildings associated with it; these served as hospitals, religious schools (*madrasas*), shelter for travellers etc. All these independent functions were accommodated in separate buildings and only two specific activities other than worship found their place in the mosque itself. These were religious teaching, regardless of whether there was an adjacent *madrasa*, and the weekly oration (*khutba*), delivered at Friday midday prayers, which combined religious, social and political elements, including praise of the ruler as protector of Islam.

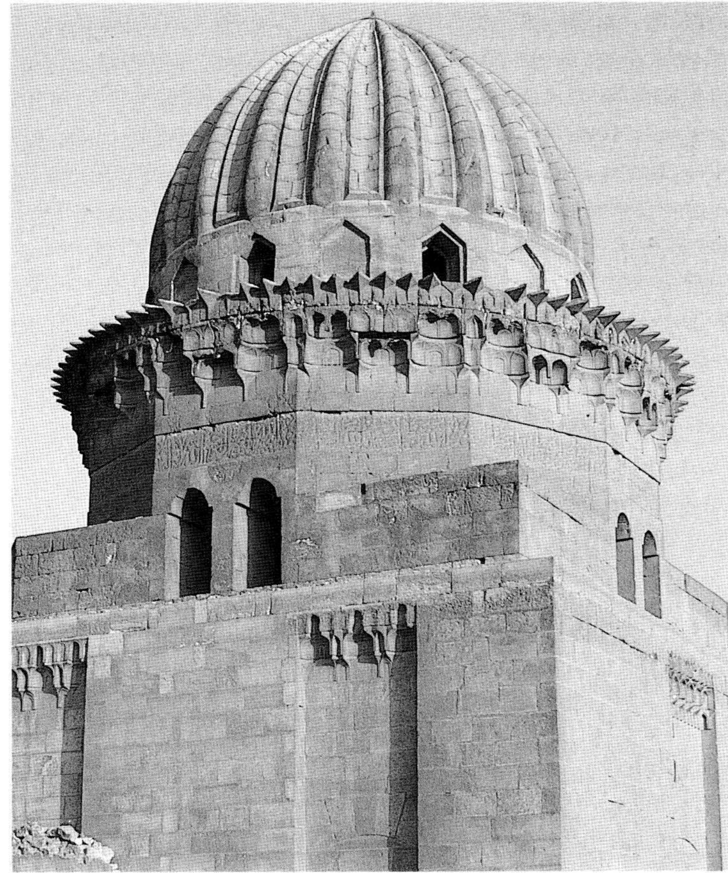
Islam has always advocated that material things should not be considered sacred, but at a very fundamental level echoes of contradictory voices can be heard.[9] The view that buildings amounted to an extravagance seems to have been prevalent among the Arabs throughout the Orthodox Caliphate (632–661), but apart from this, in the opinion of some leading historians such as K. A. C. Creswell, Arabia at that time presented 'an almost perfect architectural vacuum, and the term "Arab" should never be used to designate the architecture of Islam.' The exception to this generalization would seem to be Yemen, although one must bear in mind that little of the architecture of that country was known in the West before 1962, because it had remained closed to outsiders.

Although there are no surviving monuments dating from the first two generations of Islam, there is abundant literary evidence to indicate the evolution of building practice – first in Medina itself and then in Basra, Kufa and al-Fustat (Cairo). Initially, owing to the nature of the Muslim faith and the minimalist nature of its liturgical requirements, a square area marked out by a line drawn in the sand was sufficient for communal prayer, provided only that one side of the square faced towards Mecca to indicate the direction of prayer. Another major consideration underlying such minimalist thinking may well have been the fact that most Muslim Arabs were nomads and consequently their lifestyle precluded the use of permanent buildings of any kind, since everything they possessed had to be demountable and portable.

At the beginning, through the Umayyad period in the seventh century and the early eighth century, the architecture of the mosque was based on the Prophet's house in Medina (see chapter 5). The phrase 'architectural vacuum' can be used to describe the environment in which both Islam and Christianity were born, in the sense that no source material could have existed to help suggest forms for their places of worship. Inventing an architectural form to provide for the worship of an invisible and non-representational deity has never been achieved, and anything that became an accepted form had to be evolved through the passage of time. Consequently, both these faiths initially had to







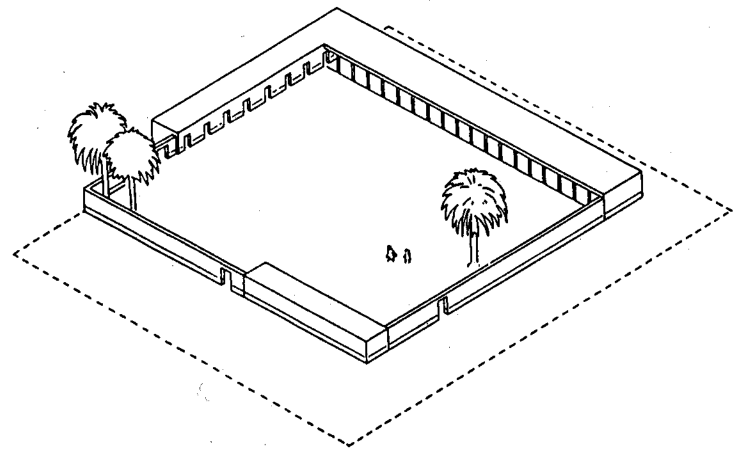
The dome as a feature of mosque architecture. On the right are two striking and unusual designs in traditional structures: the Mosque of Ibrahim Rawza (1580), Bijapur, India, featuring a rare three-quarter sphere with lotus supports; and an example of the ribbed Cairene carved stone type, dating from 1395, associated with mosques and mausoleums. A modern interpretation (top) of a traditional dome form, adopted by Hassan Fathy in the 1940s in the context of a development at New Gourna, Egypt, has since been widely used all over North Africa. The borrowing of a characteristically Indian form for use in a region with different architectural traditions is exemplified (above) by the Toa Payoh Mosque in Singapore, serving the population – mainly of Indian origin – in the first of the new towns developed in the mid-1970s.

borrow ideas from earlier societies or adapt animist temples and pagan shrines to provide the basis for the evolution of a distinct architectural language of their own. Christianity could draw on the buildings of the Romans, and Islam borrowed from Persia and Egypt, as well as from Christianity itself and thus indirectly also from Rome. There is, however, one advantage which the Church always had over Islam, namely that it could rely on powerful visual symbols to help convey its message. The crucifix is the obvious example, and the Madonna and Child falls in the same category. Both the Crucifixion and the cross symbolizing it have an extrinsic message which is universally understood, and the intensity of the emotional charge remains undiminished regardless of the background against which either is seen. The seven-armed candelabra (menorah) and the Star of David could be said to do the same thing for Judaism, although the emotional charge produced by them is less intense, at least under politically normal circumstances.

In the mosque there is no component part or object to evoke a response comparable to that associated with the symbolic cross of Christianity. The minaret, if separated from the mosque and thus divorced from its accepted function as the place from which the call to prayer is made, becomes simply another tower. The *mihrab* (see below) is the focal point of any mosque, but if it were to be removed from its position indicating the direction of Mecca and re-erected at some distance from the place of worship, it would become just another niche. Islam is virtually without symbols other than the Ka'ba at Mecca, assuming that one leaves aside mystical or allegorical motifs such as the crescent moon and star which today serve as national or political emblems, and which in any case have origins that antedate the monotheistic religions.

The Ka'ba is a black-draped, gaunt, windowless cube traditionally believed to have been built by Abraham and containing the Black Stone – probably a meteorite – said to have been given to Abraham by the Angel Gabriel. The powerful emotional impact of the Ka'ba upon devout Muslims is indisputable, but it can only be experienced in Mecca; the pictorial representations of the Ka'ba commonly found elsewhere in tile, textile or wall decoration do not evoke an emotional response comparable to that produced by a crucifix, which carries its highly charged message everywhere, regardless of the replica's size or the materials from which it is made.

The direct relationship between architectural form and function familiar from Western or Christian cultural history does not apply in the case of the mosque. Whilst the idea of communion with God is an essential part of both Judaic and Christian belief, in Islam it plays an even more direct role, since there is no intermediary such as a priest. If it should be a Muslim's wish to pray in a particular room, then that room becomes his mosque for the duration because his personal belief makes it so, and nothing more is needed to effect the transformation. (This process can also work in reverse, though in practice opposition to such a change is probably inevitable; thus, a building used for centuries as a mosque can in theory be transformed at will to serve other purposes, religious or secular.) Even without a room to pray in, a Muslim's prayer-rug or any clean surface can serve as his mosque for the purpose of prayer. Since Islam does not treat material things as sacrosanct, and since to a Muslim all things are equally subject to the will of God, the Church's differentiation between 'sacred' and 'profane' and the eternal dichotomy and conflict between body and soul do not exist. Removing one's shoes before entering a mosque and performing ritual ablutions before prayers are acts of self-purification and do not represent a crossing-over from the secular to the sacred domain. By the same token, the distinction contained in Christ's exhortation to the Pharisees, 'Render to Caesar the things that are Caesar's and to God the things that are God's', has no meaning for Muslims.



The early development of the mosque was based on the house of the Prophet at Medina with its living accommodation ranged along two sides of an enclosed courtyard (reconstruction after Creswell).

With the secular and the sacred thus welded together and expressed by means of a unified and prescribed behavioural doctrine, the role of the mosque differs from that of a church in that there is no need for some activities to be classified as 'secular' and excluded from the building for that reason. From the earliest times the mosque has always been a religious and social centre for a community, as well as – in the case of congregational mosques – providing a platform for political pronouncements at midday prayers on Fridays. In many respects, therefore, besides its religious role, the range of activities traditionally associated with the mosque was comparable to those previously associated with the Greek agora or the Roman forum.

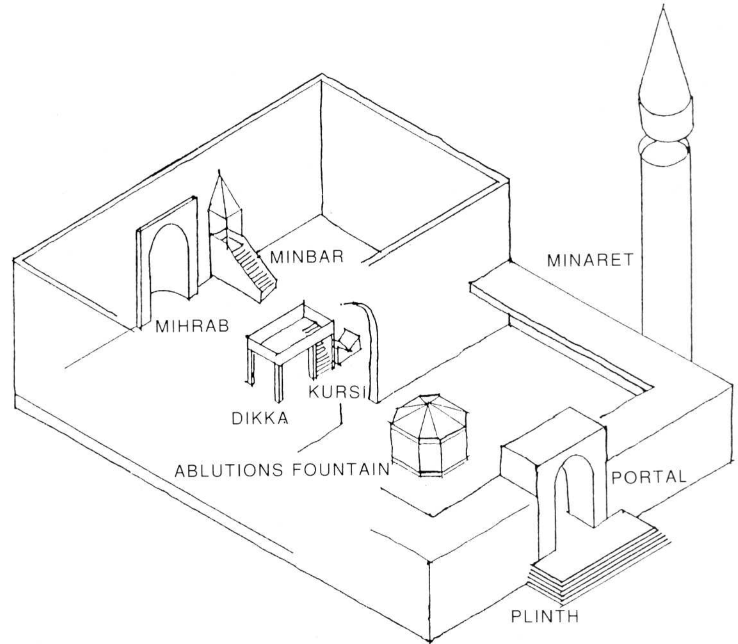
The component parts of the mosque

In its capacity as a house of worship, the mosque has a standardized assembly of component parts, subject to minor variations depending, for example, on whether a particular building is a small village sanctuary intended largely for individual prayer, a congregational or district mosque, or the principal Friday mosque in any city or community. When women attended the mosque, they remained segregated from male worshippers, either by screens or by occupying a separate part of the building such as a gallery.

The basic elements of mosque architecture and furnishings are:

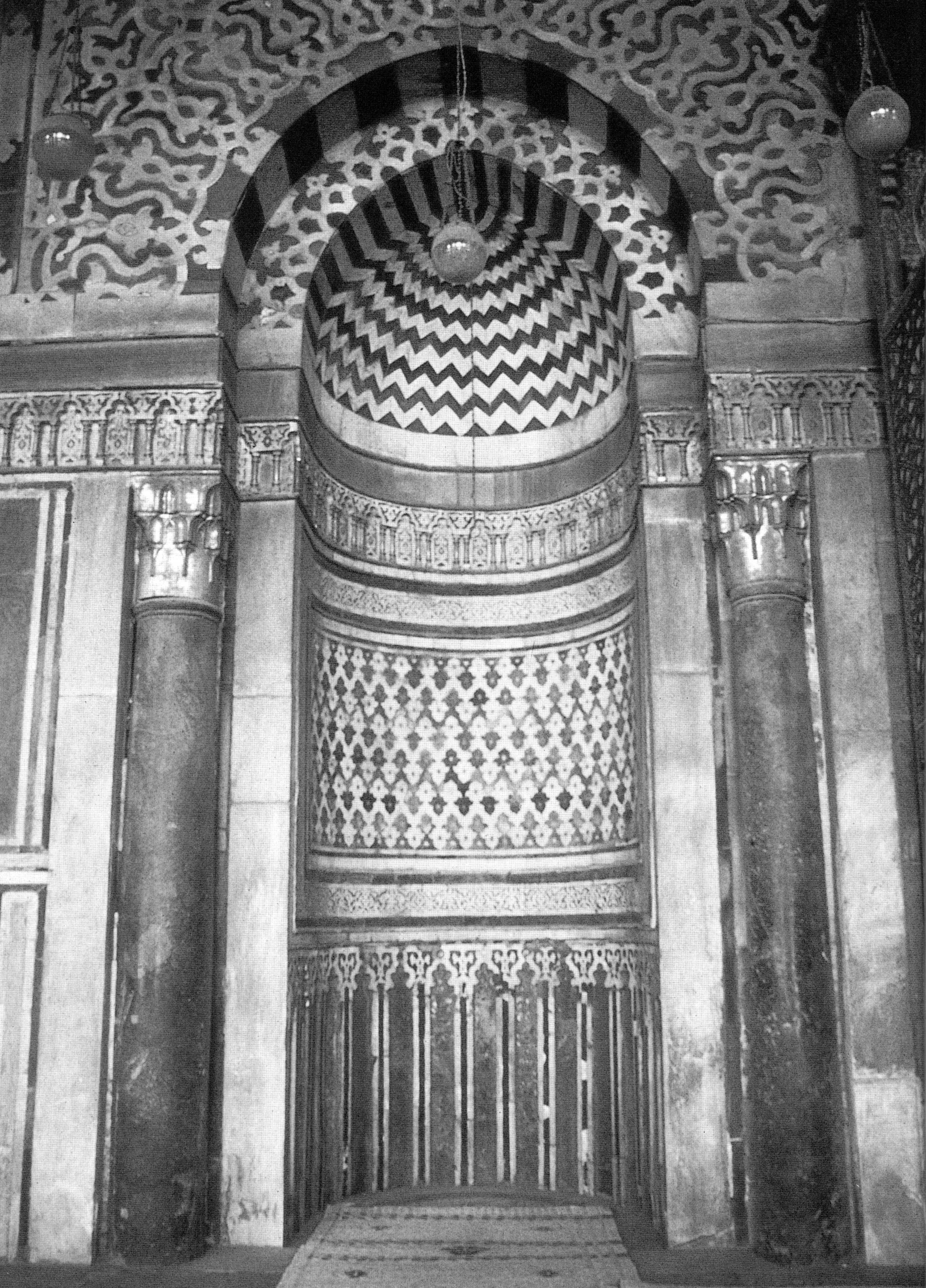
1 A demarcated space – partly roofed and partly open to the sky – to provide accommodation for the congregation at prayer. The size of the covered prayer-hall or sanctuary (*haram*) varies in relation to the area of the courtyard (*sahn*), the latter often being surrounded on three of its sides by colonnades or arcades (*riwaqs*), with the fourth side giving access to the prayer-hall; the principal factors affecting the relative proportions are the numbers of worshippers to be accommodated and the nature of the prevailing climate region by region (the beginnings of the mosque layout, derived from the house of the Prophet at Medina, are described in chapter 5). The prayer-hall – usually rectangular or square in plan – may be of the hypostyle type, i.e. having a roof supported by a large number of evenly distributed columns (sometimes with horizontal beams or systems of arches forming part of the structure). Alternatively, the hall may be covered by a single large dome on pendentives (one of the greatest contributions made by Islam to architecture)[9] or by a roof punctuated by one or more small domes.

2 The *qibla* wall and the *mihrab*. The prayer-hall must have one wall facing Mecca, i.e. perpendicular to an imaginary line pointing in the direction of Mecca. At the mid-point of this wall, known as the *qibla* wall, is placed the *mihrab*, a recess or niche which is the central and



The standard components of the mosque (not drawn to scale or representing any individual mosque).

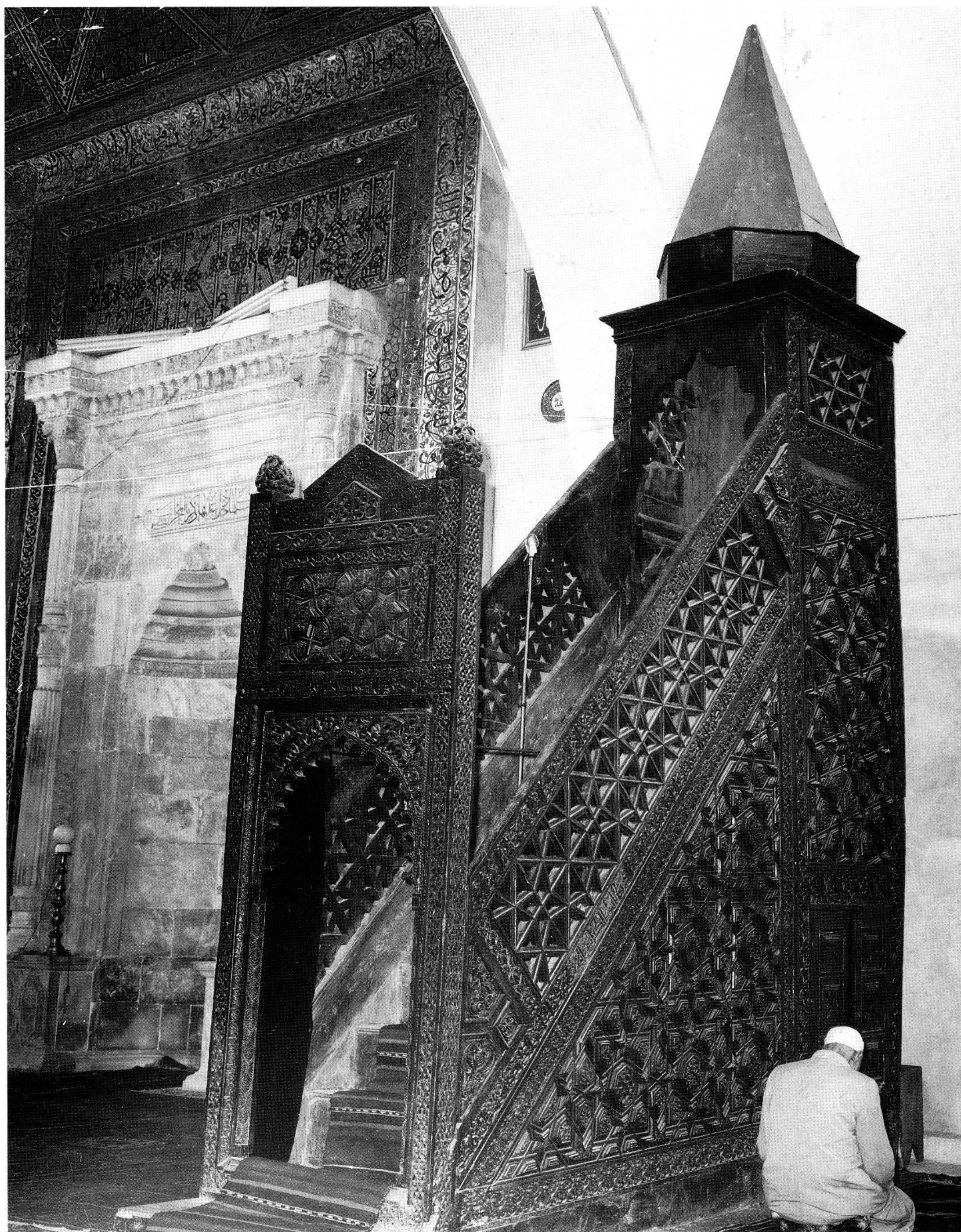
In a contemporary context, a simple representation of an open-air prayer area (below), laid out in the grounds of a hotel in Saidu Sharif, northern Pakistan, provides for the needs of individual guests; the direction of Mecca is indicated by the stone marker, serving as a mihrab.



most decorated feature of any mosque. Unlike the altar in a church, however, the *mihrab* is not regarded as sacred; what is prescribed or sacred is the direction of prayer which its presence indicates. It is said that the spot by the wall where Muhammad used to stand when at prayer in his house in Medina was marked after his death by a stone (*qibla*). The form of the *mihrab* is basically that of the Roman niche – semicircular in plan and having a semicircular arched top – set in the wall. The *qibla* wall and the *mihrab* are essential components for all mosques other than the Haram Al-Sharif in Mecca itself. Since all worshippers when at prayer must face Mecca and should in theory be equidistant from the *qibla* wall, they form rows parallel to it – a practice which also explains the conventional rectangular plan of most mosques.

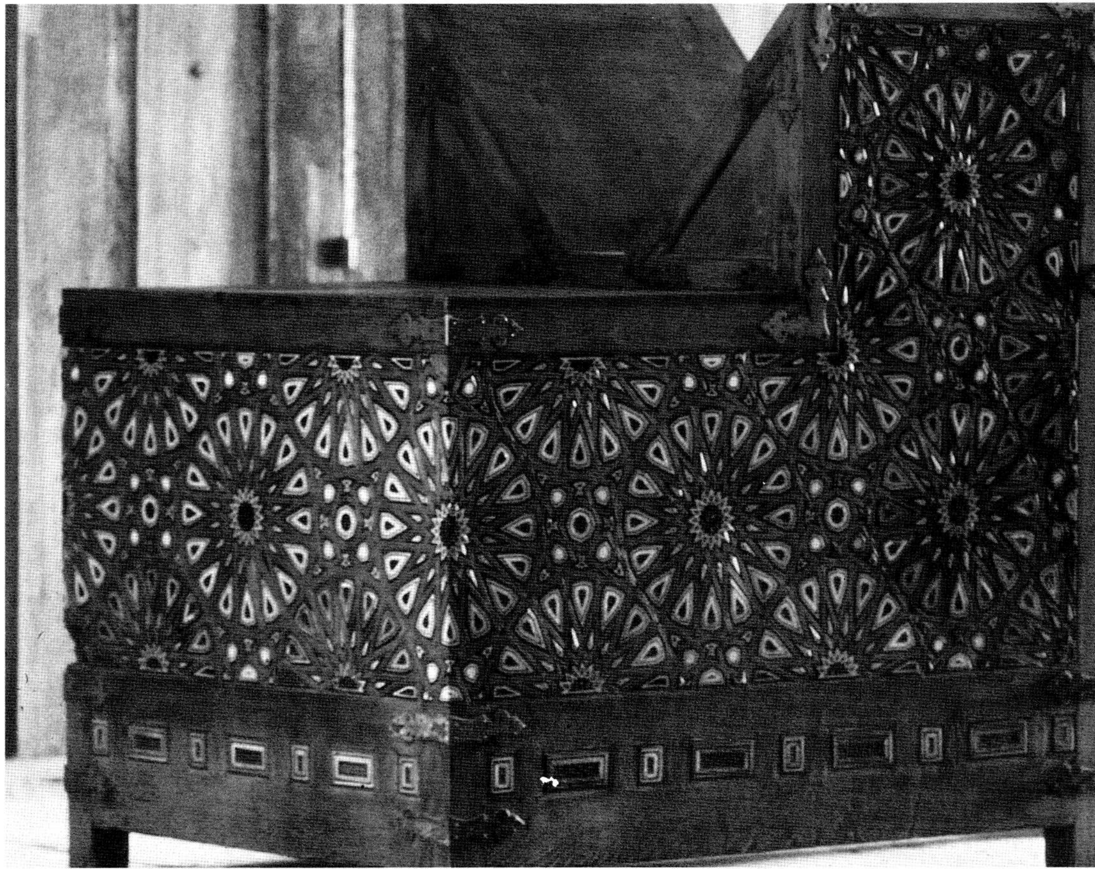
3 The *minbar*, or pulpit, is always positioned to the right of the *mihrab* and consists of a staircase of varying height, with or without handrails, leading to a small platform which is often crowned by a cupola-type roof, usually in some attractive shape. Its origin was the small set of steps (not unlike those made later for use in libraries) which was introduced in Muhammad's house in Medina at a time when his followers had increased in numbers, so making it advisable for him to position himself above the heads of his audience in order to make his words more easily heard. Subsequently, the *minbar* became an essential piece of equipment for use in any mosque where Muslims assembled in large numbers for Friday prayers; the imam leading the prayers would also deliver the *khutba* (oration) from it. In practice the imam reads or speaks from a step below the top platform,

(Right) The carved ebony minbar, *standing to the right of the* mihrab, *in the Mosque of Ala ad-Din (completed 1220), Konya, Turkey.*



(Left) The lavishly decorated mihrab *of the Mosque-Madrasa of al-Muayyad Shaykh (1415–22), Cairo.*

(Left) The elaborately decorated min-bar *of the Mosque of Qijmas el-Ishaky, Cairo.*



(Right) A large wooden Qur'an stand (kursi) *in the Mosque-Madrasa of Sultan Hasan (1356–9), Cairo.*

(Below) A finely carved wooden kursi *from Iran dated 1360; the square upper panel incorporates the name Allah, repeated in all four directions.*

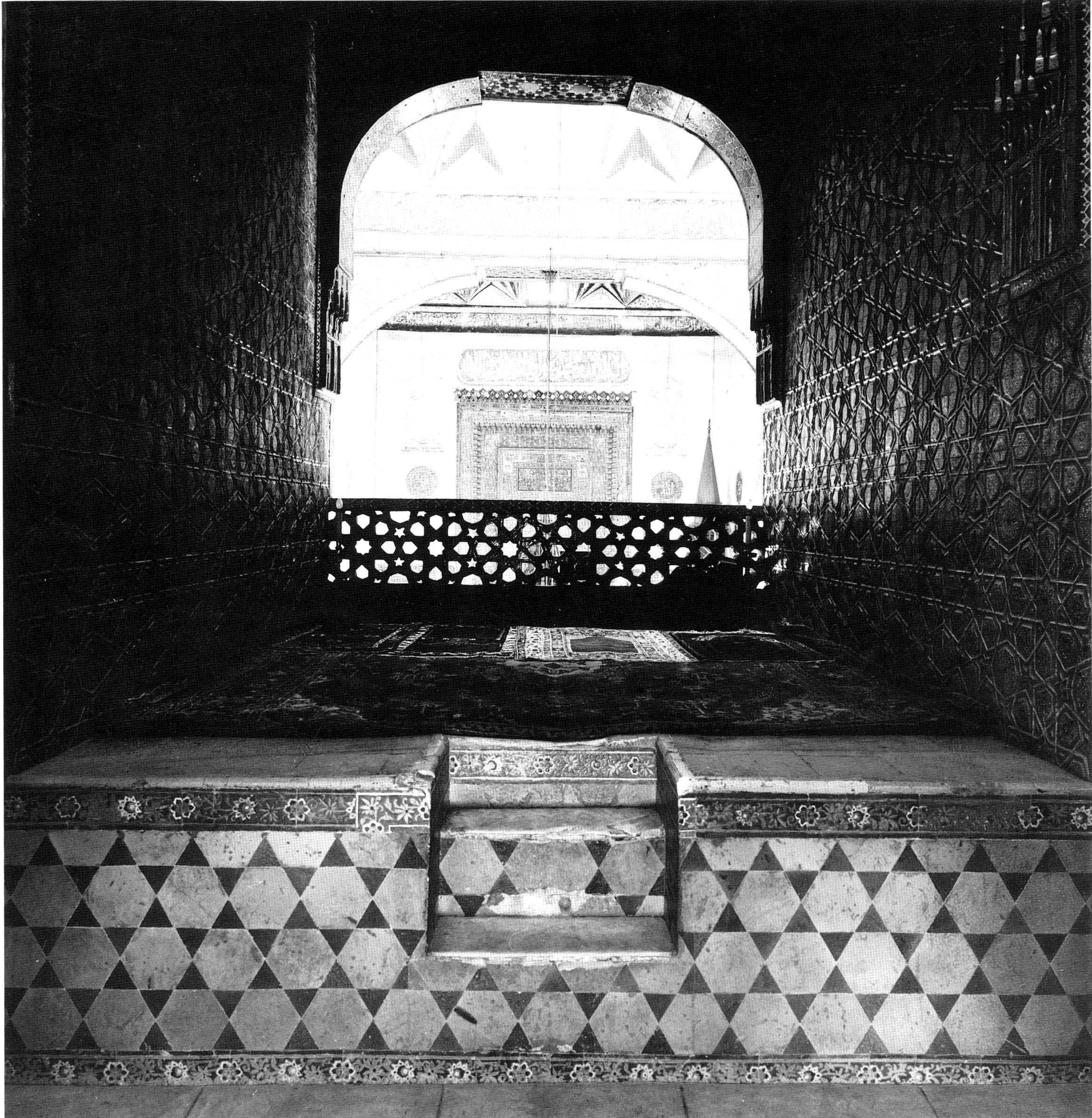
which is symbolically reserved for the Prophet. Varying in size from a mere three steps to examples on a monumental scale with elaborate decoration, the *minbar* is a feature of almost all larger mosques, but is often absent from smaller buildings used for individual worship. The weekly oration in a Friday mosque may be part sermon and part political proclamation or address of state, and the *minbar* was used in former times for 'coronations' (in the sense of the inauguration of a new caliph). Whereas in Christendom the concepts of Church and State may be considered separate, in Islam the mosque can serve both as a house of worship and as a platform for official government or state pronouncements.

4 The *dikka*. A wooden platform or tribune of 'single-storey height' and positioned in line with the *mihrab*, the *dikka* is reached by its own stairs. From this raised platform the respondents (*qadi*) of the mosque repeat the ritual postures of the imam and speak the responses so that the stages of prayer can be transmitted to a large congregation (a role not unlike that of the cantor and chorus in the Greek Orthodox rite). Depending on its size and the prevailing climate, the *dikka* may also be positioned in the courtyard outside.

5 The *kursi*. This is the lectern on which the Qur'an is placed and from which the *qadi* reads and recites; it is usually placed next to the *dikka*.

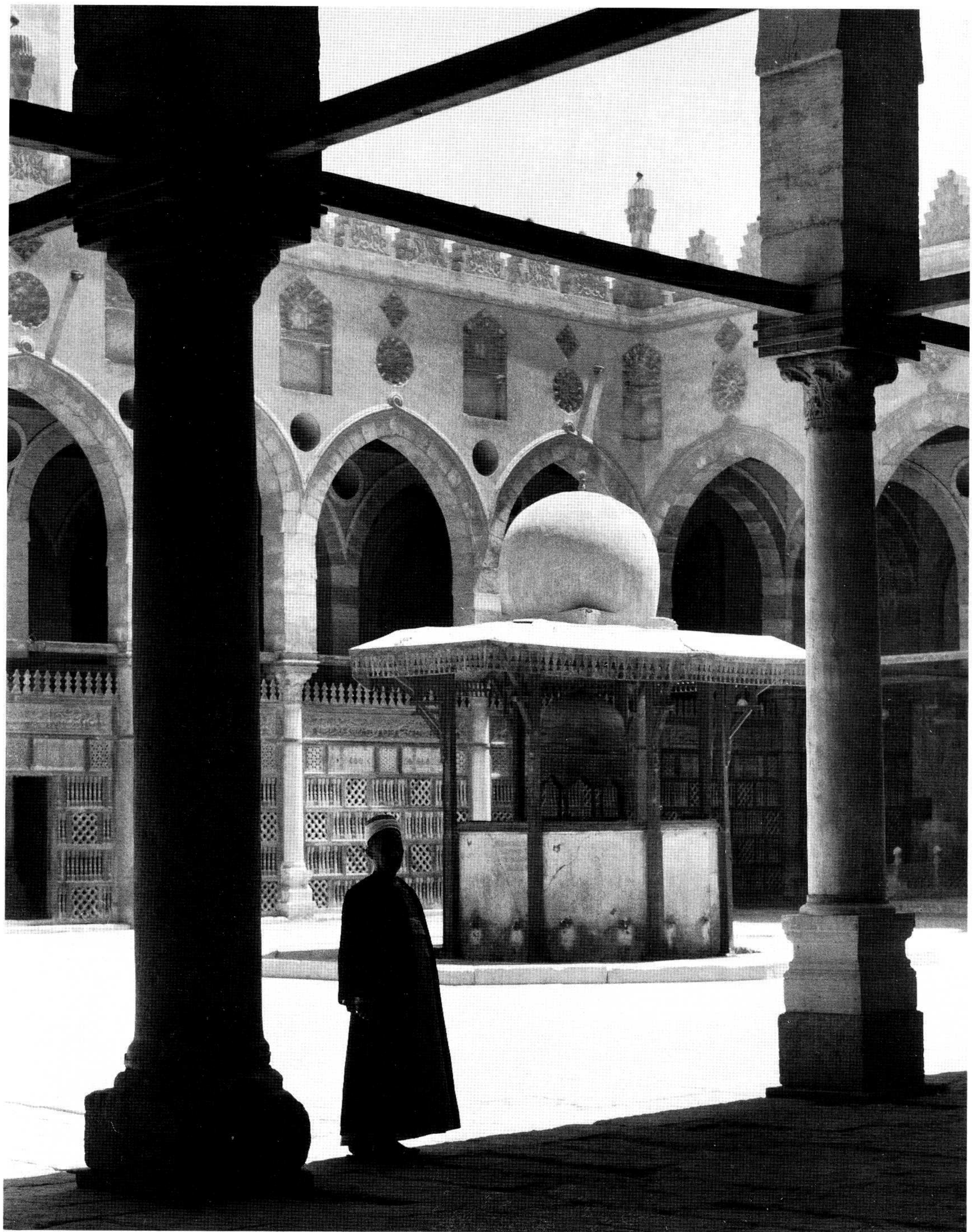
6 The *maqsura*. This was originally the place set apart to safeguard the life of the imam who, in the early centuries of Islam, was also the

caliph or governor and often in danger of assassination. In the beginning the *maqsura* consisted of a raised platform with protective wooden screens. In the early period the *dar al-imara* (governor's palace) was often erected adjacent to the *qibla* wall and provided direct private access to the *mihrab* area and the *maqsura* to afford maximum security. The widened central nave – a feature introduced at an early stage – could also function as a special processional area for the complete retinue of the caliph. The introduction of a dome over the *mihrab* bay may be attributed to the fact that the presence of the caliph called for special accentuation architecturally. In addition, a separate enclosure for princely use was often shown, such as the open *iwans* of mosques in Central Asia, with side rooms reserved for local rulers. Such was the sultan's loge in Ottoman mosques, usually screened off from the prayer-hall and having its



*(Opposite) The interior of the Selimiye Mosque (1569–75), Edirne, showing the raised platform (*dikka*) beneath the central dome.*

*(Above) The Sultan's loge (*maqsura*) in the Yeşil Cami (Green Mosque; 1412–19), Bursa, looking towards the* mihrab.



The ablutions fountain in the courtyard of the Mosque of al-Maridani (1338–40), Cairo.

own entrance. Satisfying the dual function of ensuring the ruler's safety and at the same time providing a means of surrounding his retinue with appropriate splendour often provided a special opportunity for architectural elaboration.

7 The pool. This feature may be with or without a fountain and may be intended for the prescribed ritual ablutions before prayers, but is sometimes purely decorative. When used for ablutions, it is designed to permit a number of worshippers to wash simultaneously under running water, and is placed at or near the centre of the courtyard. Fountains often display inventive designs, especially in the form of domed, small pavilion-like roofs; perhaps the most beautiful extant example is the Qubba al-Ba'adiyyin in Marrakesh (the associated mosque no longer exists). The effect of a simple square or rectangle of open water with a fountain can often be impressive in its own right, as for example at the Badshahi Mosque in Lahore. In cases where the fountain fulfils an ornamental role the obligatory washing facilities are often located in a room near the shoe-storage racks.

8 The minaret. The original purpose of this tower-like feature, apart from serving as a local landmark, was to ensure that the voice of the muezzin making the *adhan* could be heard at a maximum distance. During the lifetime of Muhammad the call to prayer was given from the roof of his house in Medina, and it was not until the fourteenth and fifteenth centuries that the building of minarets became universal. The origin of the minaret as an architectural form may be based on one of, or an amalgam of, a variety of sources

ranging from Zoroastrian symbolic fire-towers to Roman watch-towers, coastal lighthouses or church towers. A single minaret was generally provided, although under the Ottoman and Mughal Empires twin minarets (signifying royal patronage) were frequently built. Occasionally, four are found, and in the case of the Sultan Ahmet Mosque in Istanbul there are six, a figure exceeded only in Mecca, where there are seven. In modern mosques it is still usual, though not essential, for a minaret to be included, especially in the design of those built in cities. In general, however, the significance of the traditional minaret in an age when broadcasting the *adhan* via loudspeakers has become the norm, now rests in the realm of the symbolic.

9 The portal. A general characteristic of the architecture of the Muslim world is the concealment of the interior of a building from outside view, hence the mosque is almost invariably surrounded by high walls. The single impressive main portal constitutes the threshold between urban bustle and the tranquil atmosphere within; as such, the gateway to the mosque takes on a powerful psychological importance, which is often augmented by sumptuous ornamentation intended to pay homage to God's presence, as well as to emphasize the generosity of the mosque's patron. A major mosque was usually commissioned by a patron endowed with great power and wealth, such as a caliph or sultan. As the exterior – the minaret and dome often excepted – is usually plain and simple, the inclusion of a massive ornamental gateway serves to demonstrate the underlying paradox suggested by, on the one hand, the austere appearance of the House of God and, on the other, the flamboyant display of the patron's largesse. While the external walls must not be allowed to seduce the believer by means of ornamental frills, building a mosque represents an act of piety in itself, and wherever possible the scale of the donor's patronage should be appropriately commemorated.

A basic respect in which the architectural development of the mosque contrasts with that of church design is the relative importance of regional differentiation. Each region of the Islamic world rapidly evolved a stylistic image of its own, in part at least as a result of local climatic conditions and the availability of building materials combined with related craft skills. Secondly, in contrast to the history of the Church, sectarian divisions within Islam never affected architectural appearance or style. Thus, in the Christian context the influence of Reformation and Counter-Reformation is apparent in church architecture, whereas the division between Sunni and Shia – to take the nearest equivalent in magnitude in Islamic theology – cannot be readily observed. Only in the choice of quotations from the Qur'an used as calligraphic decoration can any clear distinction be found, and even this is not discernible to anybody who cannot read Arabic (see chapter 2). Finally, the restricted range of liturgical procedures (limited essentially to the reading of the scriptures and the act of prostration which accompanies the performance of prayers) is identical throughout the Muslim world.

Although the component parts which together constitute the mosque have never varied in either function or meaning, their architectural form did undergo a fundamental change during the late Abbasid period in the eleventh and twelfth centuries (the preceding centuries being sometimes referred to as the period of 'classical Islam'). With the dissolution of the Abbasid Empire, governed from Baghdad, power was distributed among a large number of new states around the perimeter of the Muslim world. This major political development was followed by the growth of regional architectural styles, each with its own character. Although the components of the core remained the same, the external appearance changed dramatically. A simple analogy would be a tree growing with a straight trunk until the eleventh century, when it divides to form numerous branches, each clad in its own distinctive foliage and representing a regional style. Saw through the trunk at any point and its cross-section will reveal the same components throughout its length. Saw through any of the branches and the components will still be the same as those of the trunk; only the foliage of the various branches will have developed differently. The language for the classical period is uniform, but thereafter regional vernacular language clothes the standardized interior of each 'branch' with a distinctive external appearance. Although virtually any of the mosque's essential component parts could be used to illustrate this point, a good example is the minaret, which serves the same purpose with the minimum of functional complexity throughout the Islamic world; however, no two regions employ the same language of design or ornament, as is clear from the examples illustrated.

Finally, it is worth mentioning two factors which affect mosque design and which are the subject of widespread and lively debate in the Muslim world. Although one of these – opposition to innovation – is a theological matter, this does not mean that its impact in other areas is in any way diminished, and in practice it exerts a powerful influence on the design of the mosque today and may continue to do so in the future. In this context resistance is directed against the introduction of any new feature which could be interpreted as evidence of a departure from, and possibly even opposition to orthodox tradition in mosque design. Such a phenomenon may be classified as *bid'a* and thus unacceptable. Given sufficient authority, the adoption of such a rigid attitude can effectively eliminate any creative element in design, leaving an architect with no choice but to resort to the use of historical revivalism. However, this school of thought has not been sufficiently widespread or powerful to prevent the realization of all free design concepts, as is evident from the examples of contemporary mosques illustrated in chapter 15.

The other factor is one that has become the subject of controversy everywhere, although it often acquires particular significance in Muslim countries: the question as to whether the continued use of regional or vernacular architectural language should be encouraged in a contemporary situation, perhaps being incorporated into an otherwise neutral and technologically standardized international style. The reason why this current debate may be of greater importance in the Muslim world than in 'Western' countries is that in the minds of the citizens of any one nation it will often be linked to the very vital issue of the establishment or preservation of that country's cultural identity.

BIBLIOGRAPHY

General Works

The *Encyclopaedia of Islam* (1st and 2nd editions) includes important articles on the mosque ('Masjid') and specific related subjects. Other standard works on the architecture of the mosque are:

Atasoy, Nurhan, Bahnassi, Afif, and Rogers, Michael, *The Art of Islam* (Unesco Collection of Representative Works: Art Album Series), Paris, 1990
Brend, Barbara, *Islamic Art*, Cambridge, Mass., 1991
Burckhardt, Titus, *Art of Islam: Language and Meaning*, London, 1976
Creswell, K. A. C., *Early Muslim Architecture* (2 vols.), Oxford, 1932/40 (revised ed., vol. I, Oxford, 1969); reprinted New York, 1978/9
Ettinghausen, Richard, and Grabar, Oleg, *The Art and Architecture of Islam 650–1250*, New York and Harmondsworth, 1987; paperback ed., New Haven, Conn., and London, 1992
Grabar, Oleg, *The Formation of Islamic Art*, New Haven, Conn., and London, 1973; revised ed. 1992
Hillenbrand, R., *Islamic Architecture*, Edinburgh, 1988
Hoag, John, *Islamic Architecture*, New York, 1977
Kuban, Doğan, *Muslim Religious Architecture*, parts I and II, Leiden, 1974/85
Kühnel, E., *Die Moschee: Bedeutung, Einrichtung und kunsthistorische Entwicklung der islamischen Kultstaette*, Berlin, 1949
Michell, George (ed.), *Architecture of the Islamic World*, London and New York, 1978; reprinted 1984, 1991
Papadopoulu, A., *L'Islam et l'art musulman*, Paris, 1976
Prochazka, Amjad Bohumil, *Mosques*, Zurich, 1986
Vogt-Göknil, Ulya, *Mosquées*, Paris, 1975

Chapter 1. Islam and the Form of the Mosque

Ahmad, Chaudhri Rashid, *Mosque: Its Importance in the Life of a Muslim*, London, 1982
Ardalan, Nader, 'An Inventory of the Generic Forms and Typology of Islamic Mosques', *Architecture as Symbol and Self-Identity*, Philadelphia, Pa, 1979;
——, 'The Visual Language of Symbolic Form: A preliminary study of mosque architecture', op. cit., 1980
Asad, Muhammad, *The Message of the Qur'an*, Gibraltar, 1980
Freeman-Grenville, G. S. P., *The Muslim and Christian Calendars*, 2nd ed., London, 1977
Schimmel, Annemarie, *Islam: An Introduction*, New York, 1992
Zakaria, Rafiq, *Muhammad and the Quran*, London, 1991

Chapter 2. The Role of Calligraphy

Begley, W. E., *Monumental Islamic Calligraphy from India*, Villa Park, Ill., 1985
Begley, W. E., and Desai, Z. A., *Taj Mahal: The Illuminated Tomb*. Seattle, Washington, and London, 1989
Blair, Sheila S., *The Ilkhanid Shrine Complex at Natanz, Iran*, Cambridge, Mass., 1985
Dodd, Erica Cruickshank, and Khairallah, Shereen, *The Image of the Word. A Study of Quranic Verses in Islamic Architecture* (2 vols.), Beirut, 1981
Hill, Derek, and Grabar, Oleg, *Islamic Architecture and its Decoration, A.D. 800–1500*, Chicago, 1964
Hutt, Antony, and Harrow, Leonard, *Islamic Architecture: Iran 1*, London, 1977
Islamic Calligraphy (exhibition catalogue), Musée d'Art et d'Histoire, Geneva, 1988
Koran, The (trans. George Sale), London and New York, n.d.
Lentz, Thomas W., and Lowry, Glenn D., *Timur and the Princely Vision: Persian Art and Culture in the Fifteenth Century*. (exhibition catalogue), Los Angeles County Museum of Art and the Arthur M. Sackler Gallery, Smithsonian Institution, Washington, D.C., 1989
Lowry, Glenn D., *A Jeweler's Eye: Islamic Arts of the Book from the Vever Collection*, Washington, D.C., 1988
Naji, Zain un-Din, *Atlas of Arabic Calligraphy*, Baghdad, 1969
Necipoğlu-Kafadar, Gülru, 'The Süleymaniye Complex in Istanbul: An Interpretation', *Muqarnas*, 3 (1985), pp. 92–117
Safadi, Yasin Hamid, *Islamic Calligraphy*, London and New York, 1978
Schimmel, Annemarie, 'The Art of Calligraphy', in R. W. Ferrier (ed.), *The Arts of Persia*, New Haven, Conn., and London, 1989, pp. 306–14;
——, *Islamic Calligraphy*, Leiden, 1970
Sourdel-Thomine, Janine, and Spuler, Bertold, *Die Kunst des Islam*, Berlin, 1973
Thackston, W. M., *A Century of Princes: Sources on Timurid History and Art*, Cambridge, Mass., 1989
Welch, Stuart Cary, *Wonders of the Age: Masterpieces of Early Safavid Painting, 1501–1576* (exhibition catalogue), Fogg Art Museum, Cambridge, Mass., 1979
Williams, Caroline, 'The Cult of 'Alid Saints in the Fatimid Monuments of Cairo. Part I: The Mosque of al-Aqmar', *Muqarnas*, 1 (1983), pp. 37–52; and 'Part II: The Mausolea', *Muqarnas*, 3 (1985), pp. 39–60

Chapter 3. Applications of Geometry

El-Said, I., and Parman, A., *Geometric Concepts in Islamic Art*, London, 1976
Encyclopaedia of Islam (2nd ed.): "Ilm al-Handasa'
Grabar, O., *The Mediation of Ornament*, Princeton, N.J., 1992
Hill, D., and Grabar, O., *Islamic Architecture and its Decoration, A.D. 800–1500*, Chicago, 1964
Jung, C. G. (ed.), *Man and his Symbols*, New York, 1964
Kühnel, E., *Die Arabeske: Sinn und Wandlung eines Ornaments*, Wiesbaden, 1949
Soucek, P. P. (ed), *Content and Context of Visual Arts in the Islamic World*, University Park, Pa, 1988

Chapter 4. Introduction: Regionalism

Powell, R. (ed.), *Regionalism in Architecture* (Proceedings of a seminar held by the Aga Khan Award for Architecture), Singapore, 1985
Serageldin, I., *Space for Freedom. The search for architectural excellence in Muslim societies*, Singapore, 1989

Chapter 5. The Central Arab Lands

Brandenburg, D., *Islamische Baukunst in Ägypten*, Berlin, 1966
Briggs, M. S., *Muhammadan Architecture in Egypt and Palestine*, Oxford, 1924
Brisch, K., 'Observations on the Iconography of the Mosaics in the Great Mosque at Damascus' in P. P. Soucek (ed.), *Content and Context of Visual Arts in the Islamic World* (1988), pp. 13–20
Creswell, K. A. C., *Muslim Architecture of Egypt* (2 vols.), Oxford, 1952/59 (revised ed. 1969); reprinted New York, 1978/79
Esin, E., *Mecca the Blessed, Madinah the Radiant*, London, 1963
Fikry, A., *L'Art islamique en Tunisie. La grande mosquée de Kairouan*, Paris, 1936
Finster, B., 'Die Mosaiken der Umayyademoschee von Damaskus', *Kunst des Orients*, 7 (1970–71), pp. 117ff.
Hamilton, R. W., *The Structural History of the Aqsa Mosque*, Jerusalem, 1947
Hautecoeur, L., and Wiet, G., *Les Mosquées du Caire* (2 vols.), Paris, 1932
Herzfeld, E., *Geschichte der Stadt Samarra*, Hamburg, 1948
Hirsch, S. and M., *L'Architecture au Yemen du Nord*, Paris, 1983
Lambert, E., 'Les Origines de la mosquée et l'architecture religieuse des Omeyyade', *Studia Islamica*, VI (1956), pp. 5–18
Lewcock, R., and Smith, G. R., 'Two Early Mosques in the Yemen: A Preliminary Report', *Art and Archaeology Research Papers*, 4 (1973), pp. 117–30;
——, 'Three Medieval Mosques in the Yemen' (parts I and II), *Oriental Art*, XX/1 and 2 (1974)
Monneret de Villard, U., *Introduzione allo studio dell'archeologia islamica: le origini e il periodo Omeyyade*, Venice/Rome, 1966
Sarre, F., and Herzfeld, E., *Archaeologische Reise im Euphrat- und Tigris-Gebiet*, Berlin, 1912–20
Sauvaget, J., *La Mosquée Omeyyade de Médine*, Paris, 1947;
——, *Les Monuments historiques de Damas*, Beirut, 1932
Sourdel-Thomine, J., 'La mosquée et la madrasa', *Cahiers de Civilisation Mediévale*, XIII/2 (1970), pp. 97–115
Stern, H., 'Les origines de l'architecture de la mosquée Omeyyade', *Syria*, XXVIII (1951), pp. 269–79
Survey of Egypt (for the Egyptian Ministry of Waqfs): *The Mosques of Egypt* (2 vols.), Giza, 1949; revised edition (ed. M. K. Ismail), London, 1992