## **Chapter Twenty-one**

#### Abbasid Civilization and the Culture of Islam

#### Material civilization in the Dar al-Islam

Although the intellectual and religious history of the Abbasid califate is relatively well known from Arabic literary sources, information on the economic history of the Dar al-Islam is quite limited. This is unfortunate because Europe and Christendom were affected almost as deeply and permanently by the material culture of the Dar al-Islam as by its intellectual and religious culture. Much of what follows in these pages is drawn from Bernard Lewis' valuable survey of the economy of the Middle East in Umayyad and Abbasid times.<sup>1</sup>

The wealth of the Abbasids came mostly from agricultural production, which had been the platform for empires since the time of Sargon of Akkad. More novel was the importance of long-distance trade in the Abbasid economy. For the first time in history a substantial volume of trade moved from one end of the Eurasian continent to the other. Although goods from India and even China had reached the Mediterranean in the Hellenistic and Roman imperial period (while gold and silver tended to move in the opposite direction), they had been almost entirely luxury items and had not greatly changed the basic Mediterranean economy. In the eighth and ninth centuries the volume of long-distance trade was much greater. The Abbasids controlled, for a while in fact and for another three hundred years in theory, a relatively narrow belt extending eastward to India and the Tarim Basin of China and westward to Morocco and Umayyad Spain. Centered latitudinally along the 30<sup>th</sup> parallel, the belt was usually less than a thousand miles wide but more than four thousand miles long. Thanks to the political unity of the Abbasid califate, and to the utility of the Arabic language all along the way, the movement of goods was easier and safer than it had ever been. Much of the trade moved by sea, and the rest of it was carried by caravans of pack animals.

In the wake of the goods themselves came the transplanting to the Mediterranean and ultimately to temperate Europe of many things that had long been familiar in central and eastern Asia. Perhaps the most obvious and appreciated innovations were those in food production and diet. One of the first novelties here was the cultivation of rice. Rice was unknown not only to pre-Islamic Arabians but also to the subjects of the Roman and Byzantine empire. It was not, however, entirely unfamiliar to the Sassanids, since at some time it must have been brought to the marshes of southern Iraq. In any case, it was in southern Iraq that in the 630s the Arabians learned about rice, while expelling the Sassanids and building the city of Basra. Soon thereafter rice became a staple cereal in irrigated lands (the Egyptian Delta, for example) to the west. Sugar was another commodity that the Arabians popularized. Sugar cane had been grown in Iran through much of antiquity, and a bit of sugar had been imported to the Roman empire, but it had never replaced honey as a sweetener. The Arabians preferred sugar to honey, planted fields of sugar cane, and exported sugar to the Byzantine empire and to Europe (our word "sugar" is an Anglicizing of the Persian sheker).

Thanks to the Arabian empire, the Europeans' choice of fruits and vegetables was also

greatly expanded. In Classical antiquity and in early Christendom the repertory of available fruits was relatively short: apples, figs, grapes, melons, pears, and plums. During the Umayyad and Abbasid empires many new fruits made their way westward from Iran, India and China. One of the first was the peach, which when introduced to Latin-speaking Europe in Late Antiquity was called the *malum persicum* ("Persian apple"). Peaches were soon followed by apricots and pomegranates. The name of the latter - literally "apples of Granada" - demonstrates that its port of entry to temperate Europe was *al-andalus*, Muslim Spain. A more important innovation than the pomegranate was the culture of citrus trees. Limes may have been the first of these, followed by lemons and (bitter) oranges, which are first mentioned in European sources in the tenth century. Tea and coffee also came to Europe through the Islamic lands, but not until after the Abbasid califate had come to an end. Although Muslims did not drink wine and beer in public, our word "alcohol" comes from the Arabic *al-kohl*.

Eating and drinking were not the only activities in Christendom affected by innovations transmitted through the Dar al-Islam. Another important cultural borrowing was paper-making, a technique discovered in China. In the Mediterranean world papyrus had for almost two millennia been the normal writing surface for pen and ink. The papyrus plant flourished only in Egypt, and Egypt was therefore where papyrus rolls were made. Craftsmen made a papyrus roll by cutting papyrus stalks into long strips and then gluing the strips together. The manufacture of paper was a much more complicated process, requiring the reduction of rags or other organic material to a pulp from which the cellulose could be extracted. Once the technique of paper-making was discovered, however, it could be applied on a grand scale, and paper mills could operate wherever a sufficient quantity of cloth (and eventually of wood pulp) was available. The Arabians brought the knowledge of paper and paper-making to the Middle East in the eighth century.

The crucial turning-point in the evolution of the Arabic book was the year 133/751, when the Chinese attacked Samarqand and were decisively defeated by the Arab governor. In the ensuing rout several Chinese were taken prisoner who possessed the skill of paper-making. Within a surprisingly short time, this industry spread to the main Islamic centres, and the paper-seller ( $warr\bar{a}q$ ) became an important figure. The relative cheapness of paper, as compared with papyrus and vellum, and its availability from that time on, was a central factor in the changeover whereby Arab culture switched from being founded exclusively on oral tradition to being a genuinely literary one.<sup>3</sup>

By ca. 900 paper was being produced in Umayyad Spain, and from there the industry was brought to Christian Europe. Although the relatively low cost of paper was not fully appreciated until the invention of the printing press, even in the late medieval period the ready availability of paper helped to make the production of books less expensive.

Textile production was yet another aspect of Europe's material culture that changed because of innovations in the Dar al-Islam. It was from their Muslim neighbors that Europeans learned to make cotton cloth and cotton clothes. Cotton had been known in Iran in antiquity, and classical Greek writers had remarked on the "wool that grows on bushes." During Hellenistic and Roman times, however, cotton and cotton goods were rarely imported to the

Mediterranean world, where wool and linen remained the standard textiles. When the Arabians conquered Iran they recognized the advantageous properties of cotton fiber and disseminated the cultivation of cotton to Iraq, North Africa, and especially to Egypt. From the Arabic word *qutun* came the Spanish *algodón* and the English "cotton."

### **Intellectual vitality in the Abbasid court**

The material and economic innovations in the Dar al-Islam, made possible by the relative ease of transmission through the long east-west corridor, were matched at the calif's court by a remarkable advance in ideas and abstract reasoning. Here the stimuli came in large part from the translation of Indian, Persian and especially Greek "wisdom" into Arabic. The first translations from Greek into Arabic were made for the Umayyad califs, but these were occasional and of uneven quality. It was at Baghdad in the late eighth and the ninth centuries that the most consequential translations were produced. This important episode in human history has been assessed by Lenn Goodman:

Under the early 'Abbasids translation became a regular state activity. Manuscripts were sought out. Free adaptation gave way to commentary. Objective standards and philological methods came to govern the translation procedure. Within a single lifetime evolving canons of accuracy and clarity rendered obsolete the work of several generations of earlier translators. A vast amount of new matter was translated.<sup>4</sup>

The Abbasids identified and employed men - usually Nestorian Christians - who were fluent in both Greek and Arabic and set them to translating the great works of Greek mathematics and science. The establishment in which the translations were made was the Bayt al-Hikmah ("House of Wisdom") and the official library was the Khizānat al-Hikmah ("Storehouse of Wisdom").<sup>5</sup>

Although the translation of Greek texts into Arabic was the immediate stimulus to the burst of intellectual energy under the Abbasids, a precondition for this activity was the tradition of learning that had survived from antiquity in Sassanid Mesopotamia. Because the Roman empire had effectively lost Mesopotamia to the Sassanids in the late fourth century, the cities east of the Euphrates enjoyed a freedom of thought that in the "Roman" world was rare before Justinian's purge and almost entirely absent thereafter. The flight to Mesopotamia of Judaeans and heterodox Christians, especially Nestorians, enriched the Christian centers of learning at Edessa and Nisibis and the Talmudic academies at Sura and Pumpeditha. The Sassanids of Late Antiquity, Goodman has shown, were more appreciative of "Greek learning" than were their Byzantine counterparts. When Justinian exiled the Neoplatonist philosophers they fled to Ctesiphon, where Chosroes I (Anūshirvān) welcomed and supported them. The Sassanid emperor also showed his high regard for learning in other ways:

Anūshirvān, who kept three empty seats in his palace against the time when the emperors of China and Byzantium and the Grand Khagan of the Turks of Central Asia would sit at his feet as vassals, ordered the translation of works by Plato and Aristotle into Persian, and had his court philosopher, Paul the Persian, write commentaries on Aristotle's logic

in Syriac and Pahlavi.6

When the Arabians conquered the land that they called Iraq, they preserved and protected its centers of learning. The Sassanids' admiration for "pagan" learning was hardly absorbed by the early Arabian conquerors of Iraq, and was shared to only a small degree by the Umayyad califs. But it survived in the Mesopotamian cities, and when the califate was moved from Damascus to Baghdad the appropriation of Greek wisdom became an important project for the Abbasid califs.

In explaining the intellectual dynamism at the Abbasid court a negative fact is perhaps the most important of all: although Islam, like the other revealed religions, was hardly compatible with the Greek philosophic tradition, it had not *arisen* in opposition to that tradition. On this score, Islam stood in sharp contrast both to rabbinic Judaism and to New Covenant Christianity. Already in the time of the Maccabees *ioudaismos* and *hellenismos* were seen by many in Judaea as mutually exclusive, and after 70 CE the rabbis barricaded themselves against the Greek language and all other aspects of Hellenism. Although New Covenant Christianity was communicated in koine Greek, from its inception Paul had explicitly opposed the "foolishness" of his gospel to "the wisdom of the Greeks." The incompatibility of Athens and Jerusalem was insisted upon by Tertullian and other Christian apologists and in the sixth century culminated in Justinian's banishment of the philosophers. The contest between Christianity and Hellenism was in crude terms a contest between faith and reason, as is argued in detail in Charles Freeman's The Closing of the Western Mind. In Christendom the conflict ended with - as Freeman phrases it - "the death of the Greek empirical tradition." In contrast to all this, the Abbasids inherited no quarrel with what little they knew of Hellenism. Muhammad himself had no acquaintance with Hellenism, and by the time Arabian armies conquered the Greek-speaking cities in the Middle East the Olympian gods were long gone and their statues long demolished. The incompatibility of Islam and philosophy would become apparent later, but in the early Abbasid period the two could still coexist. Although a Muslim official in the court of a ninth-century calif was well aware that the ancient Greeks had been heathen, he greatly admired the practical wisdom that was to be found in their books. Thus was the Greek empirical tradition transplanted to the imperial elite in the Dar al-Islam, among whom it survived - although tenuously - for five hundred years.

### **Science and mathematics**

Two of the most important translations were carried out at Baghdad under the patronage of Harun al-Rashid: these were Arabic versions of Euclid's *Elements* and of Claudius Ptolemy's *Mathematical Syntaxis*. Euclid's *Elements* were one of the great achievements of geometric and mathematical logic, an amazing example of deductive reasoning. Ptolemy's book was a compendium of all observable astronomical phenomena: sun, moon, five planets, and over a thousand fixed stars. Its full title was *megistē mathematikē syntaxis*, which in Arabic was abbreviated to *al-majistī*. The original Greek text of this work was eventually lost in the Byzantine tradition, but in 1175 Gerard of Cremona produced a Latin translation of the Arabic *al-majistī*, the title of which became, for Europeans, the *Almagest*.

One of the pressing needs was access to the best Greek works on medicine, and the

Baghdad translators produced Arabic versions of Greek medical writers, and of Galen especially. According to Haskell Isaacs, "there can be no doubt that the great physician's medical works *in toto*, as well as his methods and results, were fully digested by all the later Arab physicians and became an integral part of their medical learning." For geography the great authority was again Claudius Ptolemy, and his *Geographia* was evidently paraphrased (although not directly translated) in Arabic in the ninth century.

Translation of Aristotle's investigations into (and classifications of) the particulars of the natural world inspired at Baghdad and elsewhere in the Dar al-Islam a remarkable burst of scientific curiosity. It was here that for the first time all known substances were assigned to one of three "kingdoms": animal, vegetable or mineral." It was especially the third of these divisions that Arabic scholars studied. Our word "alchemy" comes from the Arabic *al-kīmiyā* (the art of transmuting), but the transmutation of base metals into gold was merely the most spectacular and hopeless project of these investigators. Hundreds of Arabic texts from the ninth and tenth century deal with topics as appropriate to chemistry as to alchemy. They culminate in the *Book of Secrets*, written in the tenth century by an "alchemist" called al-Rāzī. "The chemical processes described or mentioned by al-Rāzī include distillation, calcination, solution, evaporation, crystallization, sublimation, filtration, amalgamation and ceration, the last-named being a process for converting substances into pasty or fusible solids." "

Mathematics was also of great interest in the Dar al-Islam during Abbasid times. By combining the Greek and Indian traditions in this discipline, Arabic scholars established the foundations of modern mathematics. Most important was the development of the decimal place-value system, made possible by the borrowing from India of the "Arabic" numerals and the concept and notation of *sifr* ("cipher" or "zero"; the Arabic word means "empty"). The system made it possible to grasp the relationship of numerical values with a clarity that was impossible in ancient Greek and Roman mathematics. The relationship of the numerals 1, 10, 100 and 1000 is visually perceptible, while the relationship of I, X, C and M is not. The first treatise on the utility of the Hindu (Arabic) numerals, and on the concept of zero as a place-indicator, was written in the early ninth century. The author of the treatise, Abū Ja'far Muhammad ibn Mūsā, was also known as al-Khwārazmī, and from his epithet our word "algorithm" is derived. 12

Geometry and trigonometry were also refined by Arabic scholars, who assimilated what Greek, Persian and Indian astronomers had established and then went on to make new observations. Arabian mathematicians also systematized the algebraic solving of complex problems, in which an unknown quantity could be discovered through known quantities. A tenth-century Arabic text explains, as an example of this new discipline, that if (in our notation)  $x^2 - 3x = x$ , then we must conclude that x = 4. Our word, "algebra," comes from the Arabic name for this science: *al-jabr* ("the compulsion").<sup>13</sup>

The connection with India is illustrated in the career of al-Bīrūnī, who in the early eleventh century wrote on mathematics and physics but is best known as an astronomer and geographer. After spending many years in India, where he learned both the Hindi language of his own day and ancient Sanskrit, al-Biruni wrote a *kitab al-hind* ("book on India"). The most remarkable of al-Biruni's discoveries and research were his proposal that the earth rotates on its

axis and his reckoning of the latitudes and longitudes of all the important cities that he knew.<sup>14</sup>

## The beginnings of Arabic philosophy

Interest in the strictly practical wisdom of the Greeks led to more "academic" interests, and to the dialogues of Plato and the works of Aristotle. This has been elegantly stated by Goodman:

What was sought was what was useful, but the concept of the useful was itself becoming enlarged. From one point of view Plato's theory of ideas might prove useful; so could rigorous logic and theoretic knowledge, or Aristotle's speculations on justice and statecraft. Translations were undertaken initially to learn the therapy for a given disease, to solve a practical problem of geometry or engineering, to make available methods by which future events could be predicted or human fortunes made secure, to acquire tools for refuting a theological adversary. But the Greek works bear with them their own context, assumptions, cross-references - above all, their own problematic. One work leads to another. Insensibly, but inexorably, pragmatic interest breeds academic expertise, the drive to completeness, of scholarship or system. Whole sciences become the empires to annex - mathematics, logic, medicine, physics, astronomy, metaphysics. <sup>15</sup>

The goal was Wisdom in its totality, and those who pursued the goal are rightly called philosophers. The excitement of learning that characterized Baghdad and a few provincial courts from the eighth century to the twelfth produced polymaths, whose ambition was to be - if we may coin the word - pantamaths. Nothing comparable to Arabic philosophy - *falsafa* - was to be found in Christendom at the time, and would not be until the writings of the Arabic philosophers were translated into Latin (they were less appreciated in the Greek-speaking and Orthodox Christian east) and helped to make reason once again respectable in western Europe after a long hiatus.

One of the first of the Arabic polymaths was Abū Yūsuf al-Kindī (795-865), who seems to have been a tutor to some of the Abbasid youths at Baghdad. Al-Kindi had a prodigious range of interests: from perfumes and pigeons to atomism, the nature of the soul, and the Christian trinity. His essay, "On First Philosophy," opened with an exhortation to his readers to appropriate whatever had been learned by Greeks, Persians and Indians: "knowledge ennobles, whatever its source." In Aristotle's works al-Kindi was attracted to formal logic, and then to the theory of knowledge that began with Aristotle and was filtered through Neoplatonism. Al-Kindi concluded that the cosmos is governed by an Active Intellect, and that the human soul the Passive Intellect - learns and knows by coming into contact with this Active Intellect. The circle of students and translators around al-Kindi was responsible for the Neoplatonist text misnamed the *Theology of Aristotle*. This text, fundamental for Arabic and Jewish philosophy, had nothing to do with Aristotle: it was an Arabic summary, paraphrase, and in part a translation of Books IV-VI of Plotinus' Enneads (whether the first three books of the Enneads were translated from Greek into Arabic is uncertain, since all that survives comes from IV-VI). Another Neoplatonist text translated into Arabic at about the same time was *The Book of Pure* Good, which was eventually translated into Latin as the Liber de causis. It too was ascribed to Aristotle, but was in fact drawn from the *Elements* of Proclus.

Although al-Kindi was a Muslim, his religion seldom intruded upon his intellectual pursuits. The Arabic polymaths who succeeded al-Kindi were likewise nominally Muslim but their first loyalty was to philosophy. They saw Islam (and the other scriptural religions) as providing for the masses - who lacked either the leisure or the aptitude for prolonged study - a symbolic version of the truths that philosophers reached through reason. While they did not take the Quran literally, therefore, the Arabic philosophers valued religion as - in Goodman's words - "a mode of poetry and practice that instills the proper ethos in a people." William McNeill's characterization of the Arabic philosophers' attitude toward Islam is harsher: most of the polymaths "maintained a distinctly reserved attitude toward revealed religion and regarded Mohammed as at best a vulgarizer of the truth, who had dressed metaphysics in meretricious rags to win the support of the ignorant." <sup>17</sup>

The most impressive of the tenth-century polymaths and philosophers was Abū Nasr al-Fārābī. Although many stories have been told about him, they arose long after he was dead (he died in 952) and virtually forgotten. It is therefore not known where al-Farabi was born (Kazakhstan and Persia are possibilities), or what he did prior to his arrival in Baghdad ca. 900. There he studied with a Nestorian Christian scholar, who introduced him to the works of Plato and Aristotle. Al-Farabi went on to write voluminously about medicine, mathematics, philosophy, and music. His writings were scarcely appreciated in the decades after his death, but early in the eleventh century they caught the attention of Ibn Sīnā (Avicenna), who read and re-read them. It was through the Latin translations of Ibn Sīnā's writings, and also on the recommendation of Maimonides, that al-Farabi became known to western Europeans. Many of the works of "Alfarabius" were then translated into Latin, and these contributed greatly to the rise of Scholasticism.

It was al-Farabi's project to defend the ancient philosophers against the criticism that some fellow Muslims were directing against them: Plato and Aristotle disagreed on the Afterlife, it was said, and if "the philosophers" could not agree on something so important they could hardly be trusted as guides on any topic. To counter this criticism al-Farabi wrote his "Harmonization of the Opinions of Plato and Aristotle," in which he tried to show that the two great philosophers of classical Greece agreed that in the Afterlife the good will be rewarded and the evil punished. Beyond that particular topic, al-Farabi argued that for those who seek the truth the first recourse must be to reason rather than to revelation. In his *Essay on the Intellect* al-Farabi proposed that it is the Active Intellect that inspires both the prophet and the philosopher, the prophet expressing his thoughts in poetry and symbols while "the higher type is a philosopher whose gifts enable him to translate conceptual knowledge into images, words, and laws." 19

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More celebrated in his own time than al-Farabi was Ibn Sīnā, whom the Latin-reading scholars of western Europe called Avicenna. Ibn Sina (980-1037), a native of Bukhara in eastern Iran, was a prodigy by any standard.. As an adolescent he mastered the medical books of Galen that were available to him, and as a very young man he wrote his own *Canon of Medicine*, which both in its Arabic original and in a Latin translation was for centuries a standard authority for physicians in the Dar al-Islam and in western Europe. In his later years Ibn Sina speculated about the soul's relationship to the Active Intellect that guided the universe (for Ibn Sina, as for the other Arabic philosophers, the masses' belief in physical resurrection was of no interest).

Al-Farabi had written that at death the soul becomes one with the Active Intellect, but Ibn Sina disagreed, arguing repeatedly that the individual soul must retain its individuality even while illuminated by the Active Intellect.<sup>20</sup>

Despite their unorthodox eschatology, both al-Farabi and Ibn Sina were Muslims as well as philosophers. As they saw it, this was not a contradiction because philosophy and Islam were unusually compatible. In contrast to the parochialism of Judaism and the trinitarianism of Christianity, that is, the universal monotheism of Islam could be rationally defended by a philosopher. When an Arabic philosopher observed how devoted were the Christians to the Virign Mary, relics, icons, and the cult of the saints, he was grateful that Islam was unencumbered by such superstitions. And while Christians were offered a steady and continuing diet of miracles, miracles were not - with the one great exception of the divine revelation to Muhammad - a feature of Islam. To al-Farabi and Ibn Sina it therefore seemed that Islam was pre-eminently a "religion of reason." It was not, but for a very long time the califs and the local amirs saw to it that an intellectual freedom for their scholars could coexist with the Islamic culture of the masses.

# Skepticism and freethinking in the Dar al-Islam

In modern times a critical approach to their own religious tradition has been difficult at best for Muslims, and usually impossible. As a result, it comes as a surprise to find that in the Abbasid period a few Arabic writers launched a highly critical and rationalistic attack not only on Islam but on all of the so-called revealed religions. These skeptics lived and wrote in the ninth and tenth centuries, seven hundred years before wavering Judaeans and Christians began to take a hard look at their respective religions. Although it was short-lived, the episode of "freethinking" in early Abbasid society is important as an illustration of how diverse and dynamic Arabic religious and intellectual life was at the time.

One of the first freethinkers in the Dar al-Islam was Ibn al-Rāwandī, who was born early in the ninth century, perhaps ca. 815. He spent much of his adult life in Baghdad, but his birthplace is uncertain. For obvious reasons none of his books have survived, but a fair estimate of his ideas can be made from what later writers quoted from his work. In the tenth and eleventh centuries Muslims attacked al-Rawandi's ideas and conclusions, an indication that for some two hundred years his "heresy" was influential enough to require refutation. His most important book was the *Kitab al-Zummurud* ("Book of the Emerald"), which ridiculed the belief that certain men are prophets: individuals chosen by God as vehicles through whom he can communicate with all the rest of humankind. One of Ibn al-Rawandi's opponents thus summarized the book:

The book known as *Kītāb al-Zummurud*, in which he [i.e. Ibn al-Rāwandī] mentioned the miracles of the prophets, peace upon them, such as the miracles of Abraham, Moses, Jesus and Muhammad, God's blessing be upon them. He disputed the reality of these miracles, and claimed that they were fraudulent tricks (*mahārīq*), and that the people who performed them were magicians and liars; that the Qur'ān is the speech of an unwise being, and that it contains contradictions, errors, and absurdities.<sup>22</sup>

Ibn al-Rawandi was in his younger years affiliated with the Mutazilite movement but then moved away from the Mutazilites and became an apostate from Islam. He was evidently encouraged in his radicalism by Muhammad al-Warrāq, who had studied all of the religions available to him: Islam, Judaism, Christianity, Mazdaism, and Manichaeism. Concluding that the god of this world was in no way a just god, al-Warraq cast his lot with the Manichees. Although Ibn al-Rawandi was a close friend of Muhammad al-Warraq, he did not share his friend's attachment to Manichaeism, and included Mani as one of the imposters who had foisted a revealed religion upon his credulous followers.

A younger contemporary of Ibn al-Rawandi was al-Razi, who is known to have died in 925. At his death al-Razi was reported (by al-Biruni) to have been sixty-two years old. His full name was Abu Bakr Muhammad ibn Zakariya, but he was called al-Razi after his native city of Rayy, ancient Rhages, not far from modern Teheran. While Persian was al-Razi's native language he was just as comfortable in Arabic and also had a limited facility in Greek. Like many medieval polymaths, al-Razi was by profession a physician but was also a philosopher. Most importantly, he was a rationalist who was grateful for what his predecessors had learned and written, but was critical enough to reject conclusions and opinions that seemed to him unfounded. In medicine, al-Razi was indebted to Galen but he argued against many statements that Galen had made. Most of al-Razi's medical books were translated into Persian, and in the thirteenth century his encyclopedia of medicine (his *al-kitab al-hawi*, "The comprehensive book") was translated into Latin as the *Liber continens*. Printed editions of the *Liber continens* were made repeatedly in Europe during the late fifteenth and the sixteenth centuries.

Unlike his medical books, what al-Razi wrote on philosophy and religion survived only for a few centuries. The titles of these works are known, and many quotations from al-Razi appear in the works of later writers, who cited them in order to condemn them. Several of the titles demonstrate al-Razi's strong opposition to claims of prophecy: "The Prophets' Fraudulent tricks" (*Mahārīq al-anbīyā*), "The Strategems of those who claim to be prophets" (*Hiyal al-mutanabbīyīn*), and "On the Refutation of Revealed Religions" (*Fī nakd al-adyān*). At least the first two are likely to have been alternative titles for the same book. <sup>23</sup>

Although we do not know that al-Razi was himself threatened with bodily harm, it is clear that his denial of prophecy angered many of his contemporaries. He responded with frustration:

If the people of this religion are asked about the proof for the soundness of their religion, they flare up, get angry, and spill the blood of whoever confronts them with this question. They forbid rational speculation, and strive to kill their adversaries. This is why truth became thoroughly silenced and concealed.<sup>24</sup>

Despite his unpopular views, al-Razi was employed and protected by the Abbasid califs and their courtiers, who recognized his excellence as a physician.

The ninth and early tenth centuries were a period of religious turmoil and of at least limited intellectual reaction in the Dar al-Islam. On the one hand, prophecy in the broadest sense was ongoing: influenced indirectly by Neoplatonism, the Imams of Shiah Islam were

exploring and divulging "hidden" meanings of the Quran. And Sufi mystics such as Mansur al-Hallaj claimed that, like the Prophet Muhammad, they were directly in touch with God. On the other hand, the califs were still encouraging philosophy (*falsafa*), and among the wealthier classes Mutazilite Islam - although receding - still had many adherents. This diversity of religious and philosophical thought seems to have permitted the emergence of skeptical writers and the temporary survival of their works. Islam was not the only scriptural religion that invited skepticism. Another freethinker in the late ninth century was Hiwi al-Balkhi. Because Hiwi directed his criticism and ridicule against the Hebrew Bible, he is likely to have been an apostate from Judaism (or possibly from Christianity) rather than from Islam. Of his writings, of course, nothing has survived beyond what is quoted by Jewish writers engaged in refuting him.

# Islamic *kalām* and the beginnings of Jewish philosophy

In the ninth century apologists or defenders of Islam began to speculate - with little direct reference to the Quran - about philosophical, cosmological and theological questions. The activity of these apologists was called  $kal\bar{a}m$ , a word that literally meant "speech." It is not impossible that this label was first applied in a negative way (dismissing the activity as mere "speculation" or as "theorizing"), but in any case the practitioners of kalam accepted it proudly. A mutakallim was a man who was versed in and who contributed to kalam. Eventually the term came to be used for what in the European languages would be called "theology."  $^{25}$ 

Instead of simply quoting the Quran for answers, a *mutakallim* used logic and dialectic to answer the most profound questions - Does God exist? Did the universe have a beginning? What is the purpose of life? - and thus to defend the Muslim religion. Although "natural theology" is an apt description of *kalam*, the *mutakallimūn* in the ninth and subsequent centuries were in no way opposed to sacred theology. Instead, they insisted that their dialectical approach agreed with and supported what others grasped by faith. They also distinguished themselves from philosophers and their Islamic science from *falsafah* (a loan-word from the Greek *philosophia*), and were often in disagreement with al-Kindi and the philosophers who followed him. Although in both *falsafah* and *kalam* one operates with reason and the rules of formal logic, *falsafah* has no goal other than to proceed where the argument leads, whereas in *kalam* the goal of reason and of dialectic is to arrive at the revealed truths of the Quran and the Hadith.

Judaean scholars in Iraq soon felt it necessary to reply to the *kalam* of learned Muslims. <sup>27</sup> Jewish philosophy in antiquity, articulated especially by Philo of Alexandria, had not survived the disasters of 70-135. A new start was needed in the medieval period, and the challenge posed by Islamic *kalam* was soon met by two Judaeans. The more obscure of these was David ibn Merwan al-Mukkamas, who wrote late in the ninth or early in the tenth century. Far better known is Saadia ben Joseph (882-942), who headed the rabbinic academy at Sura. We shall take a closer look at these two thinkers and writers in Chapter 24, and it is sufficient here to note their debt to Arabic philosophy and Mutazilite *kalam*. David ibn Merwan especially depended upon Arabic writers and their translations of Greek wisdom, and he made no use of Biblical authority. Unlike his predecessor, Saadia did refer to the Tanakh in his *Kitāb al-Amānāt* ("Book of Opinions"), but he also confronted and then appropriated the *kalam* approach of Muslim theologians. While Muslim kalamists concluded that natural theology coincided exactly with Islam, Saadia demonstrated to his own satisfaction that natural theology led directly to Judaism.

Philosophical creativity was to continue among Judaeans until the middle of the fifteenth century, well after it had withered and died as an outlier of Islam. And in the seventeenth century the echoes of medieval Jewish philosophy helped to produce so revolutionary a figure as Baruch Spinoza, who abandoned Judaism altogether and helped to usher in modern civilization. It is therefore important to recognize that the spark that ignited the long tradition of medieval Jewish philosophy came from the ruminations of Muslim *mutakallimun* in the Abbasid califate. Furthermore, the questions asked - and to a considerable extent the answers given - by Saadia and other early Jewish philosophers came from Arabic *kalam* and *falsafa*.

### The culture of Islam: the exaltation of the Quran

Although most Western historians have understandably focused on the blossoming of Arabic science and philosophy during the Abbasid califate, other developments of the time were of greater consequence for the Dar al-Islam. The study of mathematics, medicine, logic and philosophy was supported by the califs and their courts and by some of the regional amirs, but the average Muslim had little interest in these things. Such pursuits were "foreign sciences," in contrast to the "Islamic sciences": studies of the Quran, of the Arabic language, of sacred law, and of the several collections of traditions about Muhammad. The foreign sciences were an exotic graft, which for a time was nurtured by support from the califs but then disappeared. The Islamic sciences, in contrast, grew from the roots of Islam and have continued to flourish.

What distinguished Islam from the other religions of the Abbasid empire was not the worship of God - all of the Dhimmis worshiped God, in religious traditions far older than Islam - but reverence for the Quran and for Muhammad, who had recited it. Recitation of passages from the Quran was a part of the daily Muslim ritual, and in Muhammad's lifetime many Muslims at Medina had memorized all of his prophecies. After his death this practice became widespread. An aspiration of a devout Muslim father was that his son should have memorized the entire Quran, some 6200 verses (*ayat*), by the age of ten. Such a person was a *hafiz*. In the early Abbasid period thousands of Muslims were *huffaz*, and the number multiplied after the establishment (beginning in the eleventh century) of madrasas, or schools attached to mosques. In the madrasa the elementary level of instruction was the *hfiz* course, the entire goal of which was memorization of the Quran.

Although from the beginning they had believed that Muhammad's recitations were inspired by God, Muhammad's followers may at first have regarded his prophecies as in some ways similar to the messages from God communicated through Isaiah, Daniel, Jesus and other prophets who had preceded Muhammad. That is, the first Muslims may have made the reasonable assumption that Muhammad's prophecies did not exist until Muhammad recited them, as God inspired the Prophet to recite - one by one - the *ayat* ("verses" or "signs") subsequently gathered into suras. At Medina, however, Muhammad declared that his prophecies were "sent down" from Heaven, and by the early 630s the Muslims at Medina believed that just as the Torah had supposedly been given by God to Moses so the Quran was now being given to Muhammad. They no more believed, that is, that the Quran was Muhammad's composition than Judaeans believed that Moses had composed the Torah. While Muhammad was alive, however, and under the first califs Muslims may have supposed that God created the Quran on the occasion of "sending it down" to Muhammad. During the Umayyad period, many of the

devout abandoned this view of the Quran as a created work, and in their eyes the book became something even more exalted: it was, so it was now believed, a text that had existed before the world began. In other words, the Quran is eternal but remained hidden from humankind until God in the fullness of time revealed it to Muhammad.

This view of the Quran as "uncreated," and as co-eternal with God, was possibly a response to Christianity and especially to Judaism. Christians believed that Jesus the Christ existed already "in the beginning," as the eternal *logos* of God. More importantly, many Judaeans in Arabia and Ethiopia regarded their *torah* as existing from the beginning: eventually it was revealed to Moses, but before its revelation it had been in Heaven, written on tablets, in Hebrew. The Book of Jubilees, for example, presented each of the instructions in the Torah as an "eternal ordinance, ordained and written on the heavenly tablets." In the Tanakh and the Christian Bible, however, the direct speech of God is imbedded in narratives that God did not write. Because of these human compositions - the "five books of Moses," for example, or the "psalms of David," or the four Christian Gospels or the letters of Paul - neither the Tanakh nor the Christian Bible is the "word of God" to quite the same extent as is the Quran. For Muslims the entire Quran is a manifestation of God, and nothing less than God's earthly presence.

Never in history has a book been so deified as was the Quran during the century after Muhammad's death. In Muslim culture the life of the mind not only was centered on the Quran, but was in some respects limited to it. Occasional individuals, beginning with al-Kindi, ventured far afield in their intellectual probing and philosophical speculation, but they were the exceptions who proved the rule. They had little influence on the culture of Islam, which already in Umayyad times was synonymous with devotion to the Quran.

### The elevation of Muhammad

As the Quran was exalted to divinity, so was Muhammad promoted to near-divinity, the man through whom the sacred text had been given to humankind. We have seen how the myth of Jesus the Christ took shape in Judaea in the decades after the death and supposed resurrection of Jesus *Nazoraios*. The actual Jesus Nazoraios was transformed into the Son of Man and the Son of God, his birth saluted by a Heavenly Host of angels, his miraculous powers displayed in "signs," and his earthly life culminating in his ascent into Heaven. Stories that magnified Muhammad likewise originated over the course of two or three generations after the Prophet's death, and were widely known by the middle of the eighth century, when Ibn Ishaq wrote his biography of the Prophet. The stories tend to give to Muhammad much of the supernatural status that Jesus had in Christendom. Although he had been very insistent that Jesus was neither God nor the Son of God, Muhammad had throughout his prophetic career recognized Jesus as one of his most important predecessors and had accepted the widespread belief that Jesus had worked miracles, had ascended into Heaven, and would return to earth at the End of Time. The Muslims continued to respect Jesus as one of God's greatest prophets and did not pretend that Muhammad matched him as a miracle-worker.

Nevertheless, after Muhammad's death stories began to circulate that made him too a Heavenly figure, distinguished by supernatural signs. Most important was the Night Journey story, an imaginative explanation of an obscure verse in the Quran:

Glory be to Him who made His servant go by night from the Sacred Temple to the Farther Temple.<sup>30</sup>

In the story as told by Ibn Ishaq, Muhammad is carried from Mecca to Jerusalem on a miraculous white beast named Burāq, a winged equid that with each stride covers as much ground as the eye can see. Dismounting from Buraq at the site of the ruined Jerusalem temple, Muhammad is then carried to Heaven by the angel Gabriel. There he prays with Adam, Moses and Jesus, and a Heavenly voice commands Muhammad's followers to pray fifty times a day (Muhammad pleads repeatedly with the voice, which finally reduces the number of required daily prayers to five). <sup>31</sup>

Another contribution to the elevation of Muhammad was the story of the Cleansing of the Heart. In this story angels descend from Heaven and remove Muhammad's heart. After cleansing it of all impurities in new-fallen snow, they reinsert it in Muhammad's breast. Some versions of the story place the miraculous event in Muhammad's infancy, others in his boyhood, and still others just before his call to be God's prophet. After the cleaning of the Cleansing of the Heart. After cleansing it of all impurities in new-fallen snow, they reinsert it in Muhammad's breast. After cleansing of the Heart. After cleansing it of all impurities in new-fallen snow, they reinsert it in Muhammad's breast. After cleansing it of all impurities in new-fallen snow, they reinsert it in Muhammad's breast.

The evolution of Muslim belief in the generations after Muhammad's death made him not only the subject of supernatural experiences, but also a paragon of righteousness. In his prophecies Muhammad made no claim to having lived a sinless life. In a sura that he may have recited soon after the taking of Mecca in 630 he acknowledged that he had sinned in the past and would undoubtedly sin again:

We have given you (*i.e.* Muhammad) a glorious victory, so that God may forgive you your past and future sins, and perfect His goodness to you. (Quran 48:2, Dawood)

As has been mentioned in Chapter 19, Muhammad also seems to have told a story - missing in most of the manuscripts of Ibn Ishaq's biography - that as a young boy he had joined with the other polytheists at Mecca in worship of the idols at the Ka'ba, and had been reproved for this by the old monotheist, Zayd ibn 'Amr.

Despite Muhammad's own admission of his past mistakes and his human fallibility, in the centuries after his death Muslims came to believe that Muhammad had never committed a sin, whether serious or trivial, and whether before or after God (or the angel Gabriel) appeared to him on his return from Mt. Hira. One text from the tenth century leaves no doubt about this:

Muhammad is his Beloved, His Servant, His Apostle, His Prophet, His Chosen and Elect. He did not serve idols, nor was he at any time a polytheist even for a single moment, and he never committed a light or a grave sin.<sup>34</sup>

This insistence on Muhammad's impeccable life may have arisen, as Guillaume has suggested, as another consequence of the Muslims' interaction with the Christians and Christianity. Muslims did not make Muhammad God's son, because Muhammad's prophecies had repeatedly insisted that God has no son. They believed, however, that Muhammad's relationship to God was of a kind that neither Adam nor Moses nor Jesus nor any other human has ever had. In his conduct, then, the Prophet was no less exemplary than Jesus had been. The Christians had long regarded Jesus as sinless, and the Muslims responded that Muhammad had also lived a life without sin.

# The Arabic language and the insularity of Muslim culture

Although they were very much aware that the Christians and Judaeans had books about God (the Bible was "the Book" from which the *ahl al-kitab* received its name), Muslims were strongly discouraged from learning about the Jewish and Christian scriptures. Wariness about the Judaeans' Tanakh became evident soon after Muhammad arrived in Yathrib, and intensified as time went on: although Judaeans and Christians were People of the Book they were also infidels, because they did not accept Muhammad as God's prophet. As infidels, their scriptures were dangerous to the Muslim faith. No Arabic translation of either the Hebrew *tanakh* or the various Christian Bibles - Greek, Coptic, Syriac - was published until the tenth century, when the renowned rabbinic scholar Saadia ben Joseph (Sa'adya ben Yosef, 882-942), a Jewish native of the Egyptian Fayyum, produced for his fellow Arabic-speaking Judaeans an Arabic translation of the Hebrew Bible. The script that Saadia used for his Arabic Tanakh was not the classical Arabic alphabet, but an adaptation of the Hebrew alphabet to the Arabic language. Muslims did not read Saadia's translation of the Tanakh, nor the still later translations of the New Testament into Arabic that were produced by Arabic-speaking Christians.

What eventually was offered to Muslims were Arabic texts that purported to be, but were not, translations of the Jewish and Christian scriptures. In the califate of Harun al-Rashid a certain Ahmad b. 'Abd Allāh b. Salām claimed to have translated into Arabic, word for word, the entire Bible from its Hebrew and Greek original. Ibn 'Abd Allah's work does not survive, but on the basis of what is quoted from it we may be quite sure that he did not work from the Tanakh or the New Testament, and it is likely that he knew very little Hebrew, Greek or Syriac. He told his readers, among other things, that there had been 124,000 Hebrew prophets, and that God had revealed to Adam, Seth, Enoch, Abraham and Moses a hundred scrolls.<sup>36</sup> Nor does Ibn al-Nadim, who died ca. 998 and who quoted extensively from Ibn 'Abd Allah's writings, perceive the character of the latter's "translations."

This brings us to the very important topic of the interdependence of Islam and the Arabic language. We must infer from Ibn 'Abd Allah's work that he did not expect his Muslim readers to be any more able than he was to read the Jewish or Christian scriptures. The califs had many subjects who were bilingual or even trilingual, but almost all of these multilingual subjects were either Christians or Judaeans. Muslims, in contrast, seem to have avoided learning languages other than Arabic.<sup>37</sup> As the Arabic tribes saw it, until the angel Gabriel commissioned Muhammad to prophesy, they were alone in ignorance and idolatry: the Armenians, Hellenes, Syrians, Judaeans, Ethiopians and Egyptians all had scriptures in their own tongue, but God had not yet spoken in Arabic. The Quran was God's revelation to the Arabians, in the Arabic language, and from the outset Arabic was therefore the language of Islam.<sup>38</sup> For a very long time the Quran was not translated into other languages: how could the very words of God be translated? And because few speakers of Greek, Coptic, Hebrew and Syriac accepted Muhammad as a prophet, these were the languages of infidels. While many infidels were quick to learn the language of the conquerors, such Arabization was not encouraged by the Muslims (the "Pact of Umar" contained a futile stipulation against it). For his part, a devout Muslim refrained from learning the language of the infidels in whose midst he lived. An exception was Iran, where a bilingual Muslim culture arose in the eighth century because of the rapidity with which Iranians abandoned Zoroastrianism for Islam.

The flurry of translations from Greek into Arabic in ninth-century Baghdad was necessary because the Muslim elite at the calif's court had neither the ability nor the desire to read a book in the Greek language. It goes without saying that from the extensive literary traditions in Greek, Syriac, and the "other" languages of the Abbasid empire the vast majority of Muslims were completely insulated. For the Abbasid court selected pieces of practical Greek wisdom were made available by professional Nestorian translators. But the rest of Greek literature - poetry, tragedy, history, oratory - was as inaccessible for the Muslim elite in Baghdad as it was for the tribesmen in the Hijaz.

#### The absence of Arabic books

Even in Arabic a Muslim would for a long time have been able to read no book except the Ouran. The Ouran was the first book in the Arabic language, and for over a century and a half it remained the only one. Many passages in ninth- and tenth-century texts refer to Arabic "authors" and to "books" (kutub) that were written in the Umayyad period, but no such books survive and the meaning of the ninth- and tenth-century references has now been convincingly explained by Gregor Schoeler.<sup>39</sup> Although the Arabic *kitāb* could mean "book," it could also be used for unpublished written material. Evidently their reverence for the Quran inhibited Arabic speakers from writing and publishing books during the seventh and most of the eighth century, lest another book in Arabic diminish the Quran's absolute authority. Nothing, however, prevented Muslims from compiling masses of written notes for private use. Evidently such notes were used especially for teaching purposes, and many were memorized by the students of the learned men who compiled the notes. The "book" of traditions about the Prophet that 'Urwah b. al-Zubayr wrote ca. 700, so Schoeler argues, should be imagined not as a book in our sense of the word but as a collection of notes that al-Zubayr made for his personal use as a religious instructor. The collection was preserved and used for at least three generations after al-Zubayr's death.<sup>40</sup>

So it appears that until the end of the eighth century Muslims had, with the great exception of the Quran, nothing to do with books, whether in a foreign language or in Arabic. To some extent, then, until ca. 800 the culture of Islam was still pre-literary, despite being centered squarely on the Quran. By the early years of the Abbasid califate bilingual converts to Islam were becoming numerous, and the educated brought with them a familiarity with books in Greek, Syriac or - more rarely - Coptic. This familiarity may have helped to soften the resistance to writing and reading books in Arabic. It is nevertheless remarkable that for a very long time reading in Arabic meant reading the Quran. Muslims could read something other than the Quran if they knew a language other than Arabic, but to learn the language of infidels was to risk apostasy.

### **Quran commentaries**

When Arabic books other than the Quran were finally written, in the ninth century, they were books about the Quran. The highest level of Quran studies was the making of a commentary. The meaning of some verses in the Quran was obscure, and not long after

Uthman's redaction of the text brief explanatory commentaries began to circulate, most of them orally but others in the form of written notes. The earliest *tafsīr* (commentary, or exegesis) that covered the whole of the Quran was supposed to have been compiled by Abdullah b. Abbas, who died in 688 and was a cousin of the Prophet.<sup>41</sup> In the eighth and ninth centuries commentaries were expanded, to provide information on questions that might arise about any of the 114 suras, and finally indeed about any single word in the Quran. The making of commentaries culminated in the immense *tafsīr* compiled by Abu Jafar Muhammad al-Tabarī (838-923). Born south of the Caspian sea in the region of Tabaristan (whence his epithet), al-Tabarī spent most of his adult life in Baghdad, writing two huge works. The better known of these - available in an English translation in thirty-eight volumes - is his *tarīqh al-rusul wa al-muluk al-tabarī*, the title meaning *al-Tabarī's Annals of Messengers* (that is, "Apostles") *and Kings*.<sup>42</sup> This was a history - or more accurately a chronicle - of the world, beginning with the Creation and ending with the events of 915. The first few volumes depended in large part on the biblical stories known to al-Tabari, and the bulk of this huge work (33 of the 38 volumes in the SUNY translation) was devoted to the Islamic period.

Just as ponderous as his chronicle was al-Tabari's commentary on the Quran, the tafsīr al-tabarī. So massive was this work that very few copies of it were made, and of those few copies large sections disappeared over the centuries. Luckily, a complete manuscript of the tafsīr al-tabarī was discovered at the end of the nineteenth century, and a printed edition of the Arabic text was published in Cairo in 1903. This edition ran to thirty volumes and filled five thousand pages. As John Burton characterizes it, in its diligence the *tafsīr* of al-Tabari "scaled heights not previously glimpsed and never subsequently approached." Al-Tabari used a wide range of sources: some of these were Christian, Jewish and even Mazdian, but the great majority were Muslim. In that tradition, every explanation that al-Tabari supplies is guaranteed by an *isnād*, a "chain" of authorities reaching back to Ibn Abbas, to one of the Prophet's companions, or even to Muhammad himself. Very clearly, however, much of the "information" was at some point invented rather than transmitted. Thanks to such inventions al-Tabari was able to answer every conceivable question that could be asked about the Quran: the identity of each of the foods that God sent down from Heaven for the Table that Jesus set for his disciples (5:113-14), the names of the Seven Sleepers and of their dog (18:8-26), and a mass of other trifles.<sup>43</sup> Needless to say, in the eleventh and twelfth centuries neither the boys in a typical madrasa nor their teacher ever read al-Tabari's commentary. But for a very long time at Kufa, Baghdad, Basra and other great centers of the Islamic sciences the tafsīr al-tabarī remained available for consultation and enlightenment.

## The regulated life and the limits of freedom: an essay

Before we look at the role of religious law, or holy law, in Islam something must be said about the broader topic of law and freedom. In the Western world freedom has at times been valued more highly than life itself, but in most societies known to historians and anthropologists tradition and law have been much more important than freedom. Although ideals of personal liberty owe much to seventeenth- and eighteenth-century England and the Netherlands, the roots of freedom in Europe and America go back to the cities of ancient Greece. With their economies based on slaves or helots, the ancient Hellenes understood freedom as the antithesis of slavery. Although literally the free man (*eleutheros*) in Greece was simply that - a person who

was not owned by another person - the figurative range of the word "freedom" (eleutheria) was far wider. In Athens in the fifth century BC even to work for another man was to surrender a part of one's freedom, and the typical Athenian citizen therefore refused to be any man's In their private lives, as Perikles boasted in the Funeral Oration, <sup>44</sup> every Athenian was free to do what and as he wished, without censure from his neighbors. Politically, the concept of freedom excluded any kind of government in which the citizens were "subject" to anyone but themselves. Democracy and other forms of republican government were looked upon as compatible with freedom, but a tyranny or even a hereditary monarchy was seen as the "enslavement" of the citizenry by a ruler. Even though the odds were heavily against them, the citizens of Sparta, Athens and twenty-nine other city-states chose to fight and die on the battlefield rather than to become subjects of the Persian king Xerxes. After the Battle of Chaeronea (338 BC), in which they were defeated by Philip of Macedon and his son Alexander, the Hellenes fared well enough economically, socially and culturally, but because they were now ruled by kings and no longer "free" they looked upon the period before Chaeronea as far superior to their own times. Historians still place the end of the Classical period of Greek history at 338 BC.

A prerequisite for the ancient Greeks' concept of freedom was their awareness that laws and traditions are not divinely given but have a secular origin. Although indispensable for much of ancient Greek civilization, the secular outlook of the ancient Hellenes has received far less attention than it deserves. The word "secular" is derived from the Latin saeculum ("century"), and refers to time rather than to eternity. The antithesis of the secular is the sacred. With their secular outlook, the Hellenes recognized that social, cultural, political and religious institutions were established over time, and are just as man-made as are buildings and physical artifacts. This Greek secularism contrasted with the ahistorical mentality of societies in the ancient Near East. The Egyptians, for example, supposed that their civilization had been established by the gods at the Beginning of Time, and that the best that successive generations of Egyptians could do was to try to preserve or recover what the gods had originally created. The same mentality obtained in Mesopotamia: the Babylonians believed that Marduk oversaw the construction of the original Babylon and established the institutions by which it should be governed. In contrast to all this the Athenians in the fifth century BC knew that their city's institutions and laws had been set up by earlier generations of Athenians, in the time of Draco or Solon or Kleisthenes, and the laws and institutions were therefore open to debate, criticism, amendment or repeal. The Greek word for law, *nomos*, meant also "custom." Like customs, laws were respected, but they were not sacred.

The Romans inherited the Hellenes' secular understanding of the world in which they lived. By the time of Cicero the venerable laws of the Twelve Tables were some four hundred years old and so were mentioned with respect, but because the Romans knew them to be the work of the all-too-human Appius Claudius and his ten-man commission they did not hesitate to improve on them. Like the Greek cities, Republican Rome was based on a slave economy, and its citizens - especially in the governing class - greatly prized their *libertas*. So highly developed was the ideology of freedom among the Roman senators that when Julius Caesar established himself as dictator-for-life, sixty of them banded together in a conspiracy to assassinate him. After Octavian established the Principate the Romans learned to be subject to emperors, but "the liberty of the Roman citizens" remained a slogan for a very long time.

Elsewhere in the ancient world the secularity of the human condition was barely recognized. Kingship was regarded as established by the gods, slavery was of little economic importance, tradition was paramount, and the desire for personal freedom was quite limited. The ancient Egyptian, Akkadian and Persian languages had words that could be translated as "freedom," but the words lacked the emotional power of the Greek *eleutheria* and the Latin Nor was freedom highly prized among the ancient Judaeans. This was in part because the Judaeans had no desire for or experience with republican government, but more important was the security that the worshipers of Adonai derived from theocracy. The Judaeans possessed a lengthy set of laws, which they supposed were divine and had been given by Adonai to Moses. These laws the Judaeans were obliged to obey, in return for the protection and blessings that they received from Adonai. That the Judaeans could themselves set up what laws they liked, either directly or through a representative council of legislators, was unthinkable. The written torah regulated most aspects of daily life, from capital punishment and divorce to clothing and diet. As time went on the oral *torah* of the Pharisees prescribed personal conduct in ever greater detail, much of it designed to protect ritual purity from any defilement. Most Judaeans were happy to obey at least the written *torah*, and many chose to die rather than to break any one of Adonai's laws, whether written or oral.

A minority of Judaeans, however, found the *torah* restrictive and arbitrary. Jesus Nazoraios may have regarded the *torah* as a human institution, and in any case he radically reduced its obligations for his disciples in Galilee. After his death and supposed resurrection the New Covenant community formed by his Hellenist followers proclaimed their freedom from the Laws of Moses. Like Judaism, New Covenant Christianity was a revealed religion, but what God revealed in this New Covenant was not law but freedom: Jesus' death and resurrection, so Paul declared, freed from the torah the Judaeans and everyone else who worshiped God and accepted Jesus as the Messiah. Paul certainly believed that God himself had established the laws of the Old Covenant, but in the "good news" that he carried to the Greek cities of Anatolia and beyond, Paul announced that God had now replaced the Old Covenant with a New Covenant. The law delivered to Moses was now obsolete, and all those who were baptized in the name of Jesus the Christ and who believed in his atoning sacrifice on the cross were assured of entering Thus were the members of Paul's churches free of into Heaven on the Day of Judgement. almost all the obligations that were incumbent upon the members of the synagogues: circumcision, observation of the Sabbath, avoidance of unclean foods, the recitation of set prayers at set times during the day, and much more. For many of the Gentiles to whom Paul preached, the Greek-speaking "God-fearers" who frequented the synagogues, the freedom of the New Covenant was more attractive than the *torah* of the Old Covenant. From the outset, then, New Covenant Christianity was a religion of freedom. And as the ancient world turned from the gods to God the relative success of Christianity over Judaism was to a great extent the result of Christianity's compatibility with the ideals of freedom - eleutheria and libertas - that had flourished in classical Greece and Rome. The desire for freedom that characterizes the Western world today is deeply rooted not only in classical civilization but also in Christianity.

Freedom, however, could be a source of trouble. Some converts to the New Covenant and to Gnostic Christianity assumed that there were no rules at all, and that they were free to adopt a libertine and licentious lifestyle. Having freed his followers from the *torah*, Paul had

then to spend a good deal of effort - as his first letter to the Corinthians shows - trying to damp down the fires of liberty that he had started and to institute a stern New Covenant morality, especially in sexual conduct. On the other hand, some of Paul's churches - as seen in his letter to the Galatians - were reluctant to embrace their freedom in the New Covenant, preferring an Old Covenant form of Christianity in which obedience to the *torah* was mandatory. Eventually New Covenant Christianity found ways for overachievers to renounce some of their freedoms and to adopt a closely regulated life. The monastic orders required obedience to stringent rules, and a great deal of self-sacrifice. A few sectarian Christians - the Ebionites - wanted almost nothing of the freedom that Paul had proclaimed, instead adhering to the laws of the Old Testament.

Although many Hellenistic Judaeans seem to have believed that they would enter Paradise even if they ignored the more onerous aspects of the *torah*, Judaism could not compete with Christianity on this score without undermining its very foundations. It was suggested in Chapter Eighteen that the spread of rabbinic Judaism through the synagogues of the Hellenistic Diaspora, which began in the fifth century, was motivated in part by the need to stem defections from the synagogues to the churches. Paradoxically, rabbinic Judaism offered a great deal more divine law than had Hellenistic Judaism, but the very rigor of rabbinic Judaism - what Seth Schwartz termed the "re-judaizing of Judaism" - helped Judaeans to define their identity in an increasingly Christian world.

#### The laws of God in Islam

Those Arabians who believed Muhammad's prophecies about the Day of Judgement, Heaven and Hell, learned that God required more than worship. In Islam, as in Judaism, God demanded that his worshipers regulate their lives according to his laws. The Muslims' experience with divine commandments began with Muhammad's prophecies at Medina. The three Judaean tribes of the city followed the Laws of Moses (whether Talmudic or non-Talmudic is uncertain). Instead of adopting the laws of the Judaean community, Muhammad revealed to the Muslims a different set of God's laws: briefer and less complex than those in the Torah, but just as binding. In the long legislative suras that Muhammad declared to the Muslim *umma* at Medina, and that now stand at the beginning of the Quran, the Prophet specified what God commanded on many topics. What foods does God forbid us to eat? Quran 5:3 forbids the eating of carrion, blood, and the flesh of swine. How many women may a man marry? God allows a man to have four wives (Quran 4:2). How long after her husband's death must a widow wait before marrying another man? God commands her to wait for four months and ten days (Quran 2:234). Although some of Muhammad's prophecies laid down novel laws, others simply made explicit and absolutely mandatory what had long been traditional in the Hijaz.

In short, freedom was neither expected nor valued in a religion whose very name (*islām* means "submission") denotes obedience to God and acceptance of his will. For Muslims, as for Judaeans, living according to God's laws was reassuring rather than burdensome. These laws went far beyond the prohibitions of the Ten Commandments, which most Christians considered sufficient, and for both the individual and the entire Muslim community stipulated not only what was forbidden but what was required.

### The hadīth, sunnah, and sharī ah

When questions about conduct arose among the Muslims at Medina, they could resolve them simply by inquiring of Muhammad what was pleasing to God and what was not. After Muhammad's death, however, problems immediately arose, because for many aspects of daily life the Quran gave no explicit instructions. It was to provide direction in these uncharted waters that the Islamic science of the Hadith was intended.

The word *hadīth* - "tradition" - is of exceptional importance in Islam. In the following paragraphs, as in many other English-language books, the lower-case "hadith" stands for a single and particular tradition about Muhammad, and when capitalized and accompanied by a definite article, "the Hadith" stands for the entire body of traditions about him. Muslims regard the Hadith as an authority second only to the Quran. That is, because the Prophet and only the Prophet was privileged to hear (through the angel Gabriel) the very words of God himself, whatever the Prophet did and whatever he said must serve as a guide for the devout Muslim. On a vast number of matters that are not legislated or even mentioned in the Quran, the Hadith supplies detailed instruction. Each of the accepted hadiths is accompanied by an *isnād*, a chain of authorities that stretches back several generations to Muhammad himself.

Many Muslims suppose that the thousands of hadiths in the canonical collections were all carefully transmitted from Muhammad's own time to the ninth century, when the chief collections were made and published. Most historians, in contrast, believe that - despite the isnāds - a great many of the hadiths evolved during the decades and even generations after Muhammad's death, when Muslims needed instructions on how to deal with civilized societies that Muhammad himself had never experienced. The bedouin of the Hijaz had been a "traditional society" all along. This society contrasted sharply - in its language, cults, habits, dress, and institutions - with the settled lands in Mesopotamia and the Levant. features of Arabic society were raiding, war, circumcision, polygamy, marriage to child-brides, mutilation of criminals, and traditions of "self-help" rather than reliance on the state or on civic authorities. It was a violent society, based on shame rather than guilt, in which a man was judged by his ability to help his friends and hurt his enemies. The most apparent of Arabian society's distinctive features were those of dress, diet, manners, and above all language. Muhammad introduced some changes, notably the ending of inter-tribal warfare, of gambling and of drinking wine, but most of what he found he left unchanged. And he presented his religion as a return to the pure monotheism of Abraham and Ishmael. It was, then, not something new, a long progressive step for a hitherto backward society, but a restoration of the truth that Abraham knew.

When the conquests began, in Abu Bakr's and Umar's califates, the "barbarous" Arabic tribes suddenly found themselves in control of, or "protecting," several million people in lands that had been civilized for almost four thousand years. The contrast in lifestyles was conspicuous, but by and large the victorious Arabians were not ashamed of their customs and were of no mind to change them. Neither the Muslim warriors nor their Christian allies - the Lakhm, Tanukh and Ghassan tribesmen - saw any reason to adopt the ways of their civilized subjects, whom they tended to look upon as effete. Umar himself set the tone, retaining his customary garb and way of life even as he ruled an empire. Far from embarrassment, the tribesmen felt pride in their customs, and may have relished appearing "exotic" to the civilized

people who now paid tribute to the calif. Of course the tribesmen spoke Arabic among themselves: that was the language that all the warriors, Muslim and Christian, had in common. As the generation passed that had witnessed the great victories at the Yarmuk, Qadisiya, and Nihavand, and the seizure of Alexandria in 641, that generation took on the color of an "heroic age." That would be the generation by which future Muslim generations would be measured.

Throughout the seventh century, even as Arabization (the spread of the Arabic language) began, the contrast with the subject populations - the *ahl al-dhimmah* - was in large part maintained. When a Christian or Judaean who had learned Arabic wished to become a Muslim he or she would first *become an Arabian*. The convert, that is, would be adopted as a *mawla* into an Arabian tribe, and would thenceforth dress and act as the Muslims did. Under the Umayyads the typical community in the Near East, North Africa and Spain was made up of a non-Muslim majority and a relatively small group of Muslim soldiers and administrators and their families. Whereas rabbinic Judaeans treasured their distinctive lifestyle as a symbol of their status as God's elect, a chosen people separate from the Gentiles, the Muslims' Arabic distinctiveness was a visible sign of their supremacy over their Christian and Judaean Dhimmis.

For some Muslims, however, and especially for those who had become wealthy and powerful, the pressure to preserve their Arabian way of life was not enough to prevent them from adopting much of the lifestyle that prevailed in the conquered cities. Such a departure from the traditions of Muhammad was condemned by devout Muslims, who tried to model their way of life as closely as possible on the example of Muhammad himself. To make clear the *sunnah* ("way, path, custom") is the purpose of the Hadith: this is the way things should be done, because this is how the Prophet did them, or because these are the instructions that the Prophet gave and that were remembered by his companions. The word for Islamic sacred law, *sharī`ah*. belongs to the same semantic field. Literally, *sharī`ah* means "road," and for devout Muslims Sharia rigidly prescribes the path to be followed in all aspects of life.

The hadiths extend from such weighty matters as marriage, divorce, inheritance, and the administration of justice, to the smallest details of everyday life: when and how to rinse the mouth, whether first to put on the right sandal or the left, whether or not to sleep with one ankle resting upon the other. Of special importance are the hadiths regarding the motions and attitudes at prayer (*salat*), from the stance (*qibla*) facing Mecca to the saying of *salam* to the worshipers to your left and right as you are seated, with legs folded under your torso. A cluster of hadiths detail the instructions for washing a dead body: water must be poured over the body three times, with the body lain first on its right side and then on its left side and finally propped up against the washer. A great many hadiths pertain to clothing, to dining, and to sexual conduct.

Tens of thousands of hadiths circulated orally in the seventh and eighth centuries, as Muslims claimed that this or that practice was proper because it had been the practice of the Prophet. In this chaotic situation it was the goal of Hadith science to identify the "genuine" hadiths, and to attach to each an *isnād* of authorities reaching back to the days of Muhammad. The earliest collections of "genuine" hadiths were made already in the seventh century, in the form of unpublished notes. A collection made by Ibn Ishaq ca. 770 was highly regarded but was evidently not published and after a few centuries it disappeared. The published collection that came to be regarded as canonical, especially by Sunni Muslims, was made by al-Bukhāri

(816-878). The *sahīh* ("genuine") of al-Bukhari is about the size of the Christian Bible, is divided into 93 books (each dealing with a single topic), and contains some 2600 hadiths. According to his biographer, al-Bukhari was stringent in making his selection: he reviewed 600,000 hadiths and rejected more than ninety-nine per cent of them.

Despite al-Bukhari's industry, disagreement about the Hadith continued through the tenth century. As the generations passed, however, the orally transmitted hadiths lost and the written texts gained credibility. The law schools referred more and more often to the written word, and especially to al-Bukhari's *Sahih*. By ca. 1200 the Hadith was more or less fixed.

### Islamic jurisprudence (figh) and the beginnings of the madrasa

A third and closely related Islamic science was jurisprudence (fiqh), which was based on the Quran and the Hadith. The objective of this holy jurisprudence was to establish Islamic law,  $shar\bar{\imath}$  'ah. Jurisprudence is the queen of the Islamic sciences because it is Sharia that for a very long time governed the lives of all Muslims and still is observed by hundreds of millions. Islam has therefore aptly been called a nomocracy, or "rule by (holy) law". Although the Umayyad and Abbasid califs maintained the civil law courts that they inherited in Iraq, Syria, Palestine and Egypt, they also set up Sharia courts for cases involving Muslims, each court presided over by a  $q\bar{a}d\bar{a}$  ("judge"). Although the judge was knowledgeable about Islamic law in the Quran and also in the Hadith, on an unusually difficult matter he would have consulted an acknowledged expert, an ' $\bar{a}lim$ . The plural of this word is ' $ulam\bar{a}$ , and by the ninth century it was customary for a judge to consult not just a single ' $\bar{a}lim$  but a panel, conventionally anglicized as "ulema" and treated as a collective noun.

A few expert jurists achieved some reputation already in the Umayyad period, but their influence was short-lived and they established no durable traditions. Early in the Abbasid califate men who were acclaimed as expert in Islamic law began holding schools in which they taught their methods of determining Sharia to small groups of students. Several of the schools disappeared at or soon after their masters' deaths, but four of them flourished and remain authoritative today (every Sunni Muslim adheres to one of the four). The earliest of these canonical schools was set up at Kufa in the third quarter of the eighth century by Abū Hanīfah (698-767). Although his own writings are lost, summaries by two of his students survive and serve as a basis for the Hanifite tradition. Because Abu Hanifa advocated the use of reason in extending the law found in the Quran and the Hadith, the Hanifite school is regarded as the most flexible of the Sunni schools. Abu Hanifa's example was soon followed by Mālik b. Anas (d. 795), who gathered students at Medina. The third esteemed teacher was Muhammad b. Idrīs al-Shāfi'ī, and the last and most austere of the canonical schools was founded by Ahmad b. Hanbāl late in the second half of the ninth century.

Although the two most important sources of Islamic law were the Quran and the Hadith, because new law was continuously required two other sources were recognized very early. These were analogy and consensus. By means of analogy, or the deriving of a general principle from particulars in the Quran and the Hadith, a jurist was able to extend the Sharia into new situations, and this was one of the most important activities of the leading jurists. Finally, the consensus of an ulema in effect created new law. If, that is, no particulars provided a basis for

analogy, then a panel of jurists could issue a ruling. The rulings by a regional ulema were considered binding throughout the Dar al-Islam, the reasoning being that on matters of such importance God would not allow a community of believers to come to an erroneous decision.

The study of (holy) law was closely related to the beginnings of higher learning, or of "secondary education" in Muslim lands. The science of jurisprudence was in a very simplified way the curriculum of the *madrāsah*, a building for the purpose of religious instruction and usually located next to a mosque. Mosques themselves had from the beginning served for instructional purposes: the mosque was not only where the faithful went to pray on Fridays, but was also where those so inclined might gather on other days in order to hear and memorize the Quran, to learn some of the Hadith, or even - outside of Arabia itself - to gain more confidence in the Arabic language. Unlike the mosque, the madrasa was established quite specifically to educate adolescent boys and young men in the holy law. As generalized by George Makdisi, "the ultimate object of Islamic education is to educate in God's law, encompassing all facets of life, civil as well as religious." The endowment and construction of madrasas became common in the tenth and eleventh centuries, as a consequence of the development of Muslim jurisprudence.

## Arabic grammar

Because Arabic was the language of Islam, the language in which the Quran was written, study of Arabic was an important Islamic science. The objective here was to keep the language exactly as it is in the Quran, or as it was in Muhammad's time. If left to themselves, languages are constantly changing. To stop and reverse these changes was the project of Muslim Arabist scholars.

The alphabetic script of the Arabic language was still primitive in the days of Muhammad. The script did not identify either short vowels or doubled consonants. These defects were remedied later in the seventh century, when Arabic writers borrowed from the Syriac script the convention of diacritical marks or points to indicate the length of vowels and the iteration of consonants.

The analysis and exposition of Arabic grammar also owed something to Syriac and to Greek. Dionysios the Thracian's exhaustive grammar of the Greek language had been translated into Syriac well before the Arabians' conquest of Mesopotamia, and some of Dionysios' grammatical definitions made their way to the Arabic grammarians. The main guide for the creation of an Arabic grammar, however, seems to have been jurisprudence: analogical reasoning, the establishing of generalizations from particulars, and the finding of the principles of the Arabic language. The creator of Arabic grammar was 'Amr b. 'Uthmān Sībawayhi, who died in 799 at a relatively young age. Although Sibawayhi had come to Basra to study jurisprudence, he soon fell under the influence of Khalīl b. Ahmad (d. 791), a renowned teacher of proper Arabic phonetics. Because so many of the Dhimmis in Iraq had learned Arabic, but had not learned it very well, the correct or traditional pronunciation of the language was being distorted by Syriac and Western Aramaic influences. It was the mission of Khalil b. Ahmad to hold the line on pronunciation, and also on proper syntax, in order to bring contemporary Arabic back to its Quranic purity. As Khalil's student, Sibawayhi became interested in phonetics and

then in "correct" Arabic grammar. He devoted the rest of his life to the writing of a grammar for the Arabic language.

When Sibawayhi wrote his grammar, dealing with syntax, morphology and phonetics, he intended it for publication, possibly the first "true book" written in the Arabic language. It has remained definitive for the last twelve hundred years, making a large contribution to the conservatism of classical Arabic, however greatly classical Arabic differs from the many regional dialects in use in the Arabic-speaking world. Acknowledging his debt to his teacher, Sibawayhi cited the opinions of Khalil b. Ahmad more than six hundred times, usually as an authority although occasionally disagreeing with him. Sibawayhi's book has no title other than that: *kitāb sībawayhi*. According to M. G. Carter, a specialist on Arabic grammar, "the authority of the *Kitāb* is such that it has been called 'the Qur'ān of grammar' and set alongside works of Aristotle and Ptolemy as one of the three most important books ever written." Like several other works in the Abbasid period, Sibawayhi's study was massive, in modern printed editions running to a little less than a thousand pages. 51

## The question of predestination, and the rise and fall of Mu'tazilite Islam

A complex episode in the history of early Islam was the debate about free will and predestination. It was not until the tenth century that in Sunni Islam the debate was finally decided in favor of *qadar* ("divine decree"). This doctrine, sometimes referred to as "fatalism," was one of the most important consequences of the evolution of Muslim theology. For the last thousand years it has helped to steer Islam in a direction very different from that traveled by Christendom and the Western world.

Many of Muhammad's prophecies, stressing the omnipotence of God and the utter helplessness of humankind, insist that not only everything we suffer but also everything we do has been predestined by God. It is true that much of the Quran assumes that people are able to make their own choices: whether to sin or to refrain from sin, whether to worship idols or not, and whether to accept or to reject Muhammad as God's Prophet. After the victory over the Quraysh at Badr and the defeat by the Quraysh at Uhud, for example, a prophecy reminded the Muslims that God helps those who help themselves:

If you have patience and guard yourselves against evil, God will send to your aid five thousand angels splendidly accoutered, if they (*i.e.*, the Quraysh) suddenly attack you. (Quran 3:125 Dawood)

On the other hand, many verses in the Quran state very clearly that God long ago decided who would succeed and who would fail, who would accept Islam and who would not. Just as in the Hebrew Bible it is God who hardens the heart of Pharaoh, in order to bring the Ten Plagues down upon Egypt, so in the Quran God turns men's hearts away from the Prophet, and thus dooms them to everlasting Hell. <sup>52</sup>

In the califates of Uthman, Ali and the early Umayyads, these predestinarian passages in the Quran were cited by those Muslims who recognized the califs as sinners but who nevertheless remained their loyal subjects. The califate was from the beginning an institution fraught with contradictions. Muhammad himself was an unquestioned leader, because his followers believed that he regularly received communications from God, whether directly or through the angel Gabriel. With such a supernatural status Muhammad could have no successor, unless the successor inherited Muhammad's status as a prophet. But Muhammad was not just *a* prophet, he was *the* Prophet, the Seal of the Prophets: there could be no more prophets after Muhammad.

By the time that Muhammad died the Muslims were not only a religious community. The Muslim Umma was a proto-state, successful at defending itself against pagan tribes, at raiding, and also at subjecting Judaean and Christian cities in the Byzantine empire and forcing them to pay the *jizya*. If these successes were to continue, someone would have to be given the role of political and military leader that Muhammad had played. In the event, Abu Bakr was chosen to be the *khalīfah* and at Abu Bakr's death two years later Umar was made the *khalīfah*. Under these two califs (632-644) the Muslims won their spectacular victories over the Byzantines and Sassanids, creating an empire that stretched from Alexandria to Isfahan. Undoubtedly some Muslims had misgivings about Abu Bakr's and Umar's qualifications to be Muhammad's "successor," but the misgivings were muted by the astounding successes on the battlefield during the first two califates.

Under subsequent califs the contradiction between the leader's obvious human weaknesses and his claim to be Muhammad's "successor" became conspicuous. Over the course of the seventh century Muhammad became - in Muslim memory - a superhuman figure, whose birth had been attended by miracles, who had been taken to Heaven by the angel Gabriel in the famous Night Journey, and who had lived a life without sin. In contrast to all this, Uthman, Ali and the Umayyads were ordinary and flawed men, and many devout Muslims - the Khārijites - withheld their allegiance from these sinners and "seceded" from the califate. Ali, it will be remembered, was assassinated by a Kharijite.

Although numerous, the Kharijites were by no means a majority within Islam in the middle and later decades of the seventh century. An argument against the Kharijites' puritanism was found in those passages of the Quran that speak of predestination: yes, Yazid is a drunkard, but it is God's will that Yazid be both a drunkard and the calif, and whatever God wills we must accept. An early group that articulated and promoted this doctrine of resignation were the Jabrites, who received their name from their emphasis on *jabr* ("compulsion") as an explanation for everything that happens: our successes and failures, virtues and vices were all determined by God at the Beginning of Time. <sup>54</sup> As the Hadith took shape, it reinforced this Jabrite view and denied the existence of free will. <sup>55</sup>

This theological position, which made God responsible for all that is good and all that is bad in the world, inspired a reaction early in the eighth century. The opponents of the Jabrites came to be known as the Mu'tazilites. The noun, *al-mu'tazilah*, means "the one who leaves, withdraws," and the Mutazilite movement is supposed to have begun when Wasil ibn Ata "withdrew" from the religious instruction he was receiving at Basra. The instruction included the doctrine of predestination, which Wasil refused to accept. Wasil and his Mutazilite followers believed that humans have free will, and they also insisted that God had none of the anthropomorphic characteristics that other Muslims attributed to "him" (the masculine gender was one of the attributes that the Mutazilites rejected). Those passages in the Quran that

presented God in anthropomorphic terms, so the Mutazilites argued, had to be understood metaphorically rather than literally. More broadly, what distinguished the Mutazilites was their attempt to reconcile divine revelation with reason:

Classically, the Mu'tazilites are known for five points on which they reached consensus. The common denominator of these points is that they are all demonstrable by recourse to reason, quite independently of revealed knowledge.<sup>56</sup>

In the eighth and ninth century, that is, the Mutazilites attempted to do for Islam what Thomas Aguinas and the Scholastics tried to do for Christianity four hundred years later.

Under the early Abbasid califs the Mutazilites attracted many adherents among educated Muslims, and the califs themselves became supporters of this progressive "school" of theology. Although Harun al-Rashid was discreet in his support, his son was not: Abu Jafar al-Mamun (813-833) not only accelerated the translation of Greek philosophy into Arabic, but eventually decided to establish Mutazilite Islam by force. In 827 al-Mamun launched an inquisition known in Muslim tradition as the *mihna* ("ordeal"). The judges (qadis) of Baghdad and neighboring Iraqi cities were examined on their views of the Quran. Those judges who believed that the Ouran was secondary to God, having at some time been created by God, were confirmed in their position. On the other hand, al-Mamun cashiered those judges who believed that the Quran, like God, was itself eternal and uncreated. The orthodox gadis in turn were dispatched far and wide to perform the same tests on the judges in the provinces. Officials who failed the test were flogged, imprisoned or exiled. The *mihna* engendered much hostility, because most rank-and-file Muslims were opposed to Mutazilite theology. Nevertheless, the *mihna* remained in effect for twenty-one years, until its cancellation by the calif al-Mutawakkil. Beset by a revolt of his Mamluk troops, al-Mutawakkil needed support from the Muslim populace. clear break from his predecessors, in 848 al-Mutawakkil threw the weight of the califate behind the popular doctrine that the Quran - like God himself - had existed from eternity.

Despite their rebuff under al-Mutawakkil, the Mutazilites remained an influential school of theologians for another hundred years. Their decline was hastened in 913, when Abū al-Hasan al-Ash'arī, who was in line to become the head of the Mutazilites' theological school, broke with the school's rationalism and began articulating a "traditional" theology, which eventually became mainline Sunni theology.<sup>57</sup> The fundamental shift made by al-Ashari and his Asharite school was the subordination of reason to revelation and faith (the Mutazilites had reversed the relationship). On the matter of free will the Asharites also clearly differentiated themselves from the Mutazilites: whereas the latter had supposed that people have the freedom to sin or not to sin, the Asharites insisted that according to the Quran it is *qadar* - "divine decree" - that determines our fates, our actions and our beliefs. By the eleventh century Mutazilite rationalism was gone in Sunni Islam, although it remained influential among Shiites, and the doctrine of *qadar* was firmly established.

## **Islamic mystics: the early Sufis**

In reaction to Mutazilite intellectualism, to *kalam*, to philosophy, and to the Islamic sciences, some Muslims - whether Sunni or Shiite<sup>58</sup> - sought a more direct and less cerebral

avenue to God. By relying on the emotions and religious ecstasy, these mystics reached what they considered a union with God or the ultimate reality. The Islamic mystics are known as  $S\bar{u}f\bar{s}$ , and the cradle of Sufism may have been Iran. Their name probably comes from  $s\bar{u}f$ , the Arabic word for "wool." Renunciation of material goods was essential for a Sufi, and as a symbol of his poverty he wore a patched woolen cloak. The Arabic word for poverty is faqr, and the mendicant Sufi was often called a  $faq\bar{u}r$  ("beggar"). Sufis were ascetics, like the Christian monks whom the Muslims met by the thousands in all of the lands that they conquered. The Sufis' resemblance to Buddhist monks has also been noted. Unlike Buddhist or Christian monks, however, Sufis were not required to be celibate (although many of them were). For the last thousand years Sufism has been an important aspect of Islam, especially in lands where the vernacular is a language other than Arabic.

The typical Sufi worked himself into a mystical trance by chanting verses from the Quran, or by endlessly repeating - as he danced - traditional Arabic formulas or prayers. Because the words were all Arabic, they were often not well understood by a Sufi who spoke Persian or another Indo-European language. Although he could claim, with some plausibility, that his dance and his mysticism were indeed Islamic, the Sufi's understanding of "submission" to Allah was very different from that of most Muslims. He believed that on reaching ecstasy he had achieved annihilation of the self, and that he had now become united with God.

Sufis claimed that their beliefs and practices began with Muhammad himself. Just as in Judaism the Kabbalists insisted, necessarily, that mystical Kabbalah had begun with Moses, so the Sufis were obliged to insist that their form of mysticism had from the beginning been an integral part of Islam. In any case, Sufism did not become visible until late in the ninth century, when it was articulated and brought to the fore by Junayd ibn Muhammad Abu al-Qasim, who died in 910 at an advanced age. Junayd was born to Iranian parents who had come to Baghdad from Nihavand. Over his lifetime Junayd won great renown in Baghdad and elsewhere as a holy man, the first of many Sufi saints. He taught that by renunciation and strenuous purification a man can obliterate his self and become united with God. Junayd's doctrines are contained in his letters ( $ras\bar{a}$ 'il), all in Arabic. Because Junayd declared that his mysticism was guided by the Quran and the Hadith he encountered little personal opposition among the faithful.

Not surprisingly, however, Sufism seemed to many Muslims a devaluation of traditional Islam, and to some it seemed an essentially different religion. So towering was the stature of Muhammad, the Seal of the Prophets, that even the modest elevation of another religious figure was unsettling. Holy men, or saints, had dotted the history of Christianity, but in Islam there had been no saints before Sufism. In addition, doctrines and sacred texts were for the Sufi indirect and insufficient paths to God. Regarding their mystical approach to God as the highest form of religion, some Sufis excused themselves from following Sharia and from making the arduous *hajj* to Mecca.

Junayd's successor as teacher of the Sufis was Mansur al-Hallāj. Al-Hallaj was from Persia (Fars), and was born to a family that had recently converted to Islam from Mazdaism (Zoroastrianism). As a teacher al-Hallaj was more radical and less self-effacing than Junayd had been. Al-Hallaj claimed that in his trances he was indeed united with God, and the many followers of al-Hallaj claimed that he worked miracles. The reputation and the claims of

al-Hallaj of course called into question the uniqueness of Muhammad, of the Night Journey, and of Quranic prophecy. Eventually al-Hallaj became the target of vehement criticism. The Abbasid calif al-Muqtadir imprisoned him in Baghdad and in 922 ordered his execution. For a time Sufism in Iraq was out of the public eye. In Iran, central Asia and northwest India (Pakistan), however, Sufism proliferated, and wandering Sufis played a very important role in the pervasive Islamizing of these lands.

In the event, the Abbasids' opposition to Sufism was temporary. Like mystics in other religions, the Sufis were scarcely a threat to the political order. In their everyday lives the Sufis were pacific and non-violent, urging love and service for other people (and even for animals) as the height of godliness. Many were regarded by the public as saints or holy men. To become a Sufi one sought the company of a Sufi teacher, and for years listened to his instruction and followed his example. In the eleventh century Abū Saʻīd ibn Abi '1-Khayr established in northern Iran a formal order of Sufis, with centers for instruction and indoctrination. This network he called *al-khanat*, ("the cells"). Other Sufis established other orders, the practice spreading from Iran and Iraq as far west as Morocco. Abd al-Qādir al-Jīlī (1077-1166) established what came to be known as the Qadiriya order of Sufis. His epithet, al-Jīlī, came from his homeland: the Iranian province of Gilan, on the southern shore of the Caspian. In reaction to the more extreme or "intoxicated" forms of Sufism, al-Qadir insisted that his followers strictly follow Sharia in their behavior, and he stressed the purification of the soul, minimizing its physical desires. This "sober" Sufism seemed innocuous to traditional Muslims, and the Qadiriya order flourished.

# The culmination and stagnation of Arabic philosophy

The rehabilitation of Sufism in the latter half of the eleventh century coincided with the demise of the Mutazalite school of Islamic theology, and was part of Islam's broader estrangement from philosophy and rationalism. Toward the end of the eleventh century the respect that al-Farabi, Ibn Sina and other philosophers had been shown by the court at Baghdad drew fire from an Islamic legal scholar, Abū Hāmid al-Ghazālī. Al-Ghazali (1058-1111) was born in the village of Ghazalah, near the city of Tus, now named Mashhad, in northeastern Iran. After several years as a celebrated jurist in the ulema at Baghdad, al-Ghazali suffered a physical and emotional breakdown, which was cured - so he believed - "by divine light reaching his heart." After this mystical experience al-Ghazali abandoned his legal profession in order to focus on philosophy and religion. His principal work was *The Revival of the Religious Sciences*, with special attention to Islamic jurisprudence, but al-Ghazali's importance stems more from his much shorter *On the Incoherence of the Philosophers*.

Al-Ghazali regretted that educated Muslims - unlike the uneducated masses - seldom had a strong religious faith. Perhaps he was correct in attributing this religious diffidence among the educated to the growing influence of Plato, Aristotle and especially Neoplatonism, which had become the great favorite in Arabic *falsafah*. Because he was a skilled debater and had devoted much study to philosophy, al-Ghazali was well positioned to point out its weaknesses. *On the Incoherence of the Philosophers* was first of all a demonstration that the ancient Greek philosophers frequently disagreed with each other, but it was also a broad attack on many of the conclusions on which the philosophers more or less did agree. 62

That the world had no beginning and would have no end, that physical resurrection was impossible - these and other philosophical tenets were indefensible, so argued al-Ghazali. His criticism of the philosophers and his emphasis on revelation as the necessary source of truth were not immediately influential, but over the course of the twelfth and thirteenth centuries his book attracted increasing attention, both the Arabic original in the Dar al-Islam and a Latin translation in western Christendom. Although it was eventually forgotten in Europe, its influence on Islam has been lasting. In the short run al-Ghazali made Sufism and other forms of Islamic mysticism respectable. More consequentially, and somewhat paradoxically, his writings discouraged not only Neoplatonism but the entire study of philosophy in the Dar al-Islam.

A younger contemporary of al-Ghazali was Ibn Bajja (Latinized as "Avempace"), who was on the opposite end of the philosophical spectrum and came from the opposite end of the Dar al-Islam. Ibn Bajja was born in Spain, perhaps at Saragossa, ca. 1080 and was murdered at the Almoravid court in 1138. Very little of his voluminous writing survives, most of it having been burned, but in intellectual history he is recognized as the pioneer of Arabic philosophy in Spain. Without "Avempace," it is doubtful that either Averroes or Maimonides would have attempted what they so brilliantly accomplished. Ibn Bajja rejected the Quran and other "divine revelations," and had no patience with the Heaven and Hell of popular religion. A second philosopher in Arabic Spain was Abu Bakr Ibn Tufail (ca. 1105-85), who became "Abubacer" in Latin Christendom. Late in life Ibn Tufail was invited to the court of Abu Yaqub Yusuf, the Almohad calif of Muslim Spain. His most influential book was a philosophical romance - based on a similar work by Ibn Sina - about a toddler washed ashore on a deserted island in the Indian Ocean. There the child matures and attains complete wisdom, without ever encountering the scriptures of the revealed religions.

The classical period of Arabic philosophy ended with Ibn Rushd of Cordoba, whom Christians knew as "Averroes" and who was a contemporary of Maimonides, the great Jewish thinker and writer who was also a native of Cordoba. Ibn Rushd and Maimonides were both physicians and both spoke and wrote in Arabic, although Maimonides' wrote his Arabic with Hebrew rather than Arabic characters. Ibn Rushd's inherited religion was Islam and Maimonides' was Judaism (we shall return to him in Chapter 24), but even in their theological and metaphysical views they had much in common.

Ibn Rushd (1126-1198) came from a distinguished Muslim family in Cordoba, and while still a young man made a name for himself both as a physician and as a scholar. The first Almohad rulers of Andalusia found his teachings and writings at odds with their own rigid brand of Islam, but later Almohad califs - Abu Yaqub Yusuf and Abu Yaqub al-Mansur - admired and supported him. Ibn Rushd became their court physician, and was also made a judge  $(q\bar{a}d\bar{t})$  at Seville. His great fame comes neither from his judicial nor his medical practice and writings, but from his commentaries on those works of Aristotle that were available to him. It was Ibn Rushd who was responsible for introducing Aristotlelianism to Muslim Spain, whence it was transmitted to western Christendom. Eminently qualified to be both an interpreter and a critic of Aristotle, Ibn Rushd "grasped most faithfully and firmly what Aristotle meant by his analysis of being." Aristotle's *De anima*, a treatise on the intellect and "soul," was one of the works on which Ibn Rushd's commentary was especially important. Aristotle's speculation in the third book of the *De anima* was extended by Ibn Rushd, who argued that the individual human

intellect is a pale reflection of the single and perfect "Active Intellect" that had been a fixture in Arabic philosophy since the time of al-Farabi. <sup>65</sup> Ibn Rushd went on to write two tracts of his own, both preserved in Latin translations, on the union of the Active and the Passive Intellects. Siding with al-Farabi and against Ibn Sina, he argued that when a person dies his intellect, or soul, merges with the Active Intellect of the universe: the immortality of the individual human soul, as Ibn Rushd saw it, was a religious belief but not a philosophically tenable conclusion. Belief in a physical resurrection was for Ibn Rushd a useful myth because it encouraged good behavior.

Just as influential as the commentaries of "Averroes" on Aristotle were two works that argued strongly for the place of reason in humankind's search for the divine. In one of these, *On the Harmony of Religion and Philosophy*, Ibn Rushd stated his conviction positively. The other was an attack. In response to al-Ghazali's *On the Incoherence of the Philosophers*, Ibn Rushd wrote *The Incoherence of the Incoherence*. In this book he took up each of al-Ghazali's arguments in order, and tried to show that they were unfounded.

Ibn Rushd was the last major figure in the long line of classical Arabic philosophy. That he had no continuators was in part the result of a growing opposition between Islam and philosophical speculation. The decline of Arabic philosophy was also the result of the military and political collapse of much of the Dar al-Islam in the thirteenth century. By 1220, as we shall see in Chapter 25, the Middle East was facing the onslaught of Mongolian invaders, and by 1258 lay in ruins. At the same time, almost all of Muslim Andalusia was conquered by Ferdinand III and so was removed from the Dar al-Islam. Coincident with and subsequent to these military and political disasters was a change in outlook by those learned Muslims who survived. The change was in part due to the disasters themselves, but more important than the physical damage was the widespread belief that the disasters were God's punishment of the Dar al-Islam for neglecting the Quran and the Hadith. Such a theocratic interpretation of events found support in the anti-intellectualism that had been articulated by al-Ghazali. Coincident with an allowed the content of the part o

The anti-intellectual movement that grew among educated Muslims in the twelfth and thirteenth centuries bears some resemblance to what educated Christendom had experienced in Late Antiquity, as the Roman empire was being overrun by Germanic raiders and invaders. When Origen wrote his defense of Christianity in the early third century he conceded that despite Paul's dismissal of "the wisdom of the Greeks" - reason and philosophy provided the surest road to truth, and Origen went on to present Christianity and faith as necessary short-cuts for the masses who had neither the leisure nor the resources for extended study. <sup>68</sup> But in the late fourth century, as disasters accumulated, such respect for philosophy and rationalism came under ridicule in the Church, and Origen's own writings were condemned. Ambrose, Jerome and Augustine - each of whom had a fine education in the ancient classics - urged their readers to put away the books of Vergil and Cicero and to limit themselves to the Holy Scriptures. Augustine's City of God instructed Christians that the Roman empire, recently reduced to ruin, was of little importance compared to the Church. At the same time, Greek-speaking Christians in Antioch were receiving the same message from John Chrysostom, who had learned his skill as a debater from the pagan philosopher Libanius. Chrysostom urged the intellectually ambitious that they could learn far more from the fishermen of Galilee than from the philosophers of Athens. The "closing of the Western mind" during the disasters of the fourth and fifth century

was to last for eight hundred years.<sup>69</sup> In the Dar al-Islam the disparagement of rationalism, which became a serious project in the twelfth century and was accelerated by the Mongolian devastation in the thirteenth, has had equally durable consequences.

- 4. Goodman 1990, pp. 478-79.
- 5. Goodman 1990, pp. 479-80.
- 6. Goodman 1984, p. 472.
- 7. Freeman 2002, pp. 313 ff. It is of course a simplification to identify Christianity with faith and Hellenism with rationality. As we have seen in Chapters 15 and 16, by the fourth century the Greek philosophic tradition had been narrowed to Neoplatonism, and people who called themselves Hellenes were more attracted to mysticism, magic and the irrational than to empirical science and skepticism. Christianity was more the beneficiary than the cause of the decline of reason.
- 8. Isaacs 1990, p. 344.
- 9. Hill 1990 B, pp. 336-37.
- 10. Hill 1990 B, p. 337.
- 11. Hill 1990 A, p. 255.
- 12. The Arabic original of al-Khwarazmi's treatise was lost, but survives in several Latin translations, one of which (from the 13<sup>th</sup> century) is titled, *Algoritmi de numero indorum*. The title of this manuscript was intended to mean, "This is Algoritmus's [book] on the Indians' numbers," the translator approximating al-Khwarazmi's exotic personal name as "Algoritmus." But the genitive singular of this personal name was read as the nominative plural of an exotic abstract noun, and the title was erroneously taken to mean, "Here are some *algoritmi* on the Indians' numbers." Thus did misconceptions once again enrich the European languages. For the 13<sup>th</sup>-century ms. see Hill 1990 A, p. 255.

<sup>1.</sup> For the survey, and an explanation of why so little is known about the economic history of the Islamic world before Ottoman times, see Lewis 1997, pp. 157 ff.

<sup>2.</sup> Lewis 1997, pp. 158-59.

<sup>3.</sup> Beeston 1983, p. 23. Ideological factors, however, were perhaps more important in delaying the inception of a literary culture to the late eighth century.

- 13. Hill 1990A, pp. 255-56.
- 14. Ochsenwald and Fisher 2004, p. 100.
- 15. Goodman 1990, p. 483.
- 16. Zimmerman 1990, p. 368. Zimmerman's article provides a comprehensive account of al-Kindi's writings.
- 17. McNeill 1963, p. 436.
- 18. Mahdi 1990, pp. 78-79.
- 19. Goodman 2003, p. 154,
- 20. Goodman 2003, pp. 154-56. For full discussion see Goodman, *Avicenna* (London and New York: Routledge, 1992).
- 21. On the *Nachleben* of Ibn al-Rawandi's writings see Stroumsa 1999, pp. 168 ff.
- 22. Stroumsa, p. 47.
- 23. Stroumsa 1999, p. 93.
- 24. Stroumsa 1999, pp. 97-98.
- 25. Nogales 1990, p. 1: "The closest equivalent to 'theology' in Arabic is *kalām*."
- 26. Zimmermann 1990, pp. 367-8.
- 27. On which see Wolfson 1979.
- 28. See Guillaume 1956, pp. 130-31 for the analogy with the Christian *logos*.
- 29. Jubilees 15:25-26 (here, specifically about God's law on circumcision).
- 30. Quran 17:1 (Dawood). The word translated by Dawood as "temple" is *masjid*, literally the "place of prostration" but ordinarily translated as "mosque."
- 31. See Ibn Ishaq 1955, pp. 181-82 (the *isnād* goes back to Aisha, the Prophet's wife), for the story of the journey on Burāq; and pp. 186-87 on the reduction of the number of required prayers.
- 32. Ibn Ishaq 1955, p. 72 (the *isnād* goes back to Muhammad himself).
- 33. A metaphor in the Quran that may have inspired the story is Quran 94:1 (Dawood): "Have we not lifted up your heart and relieved you of the burden which weighed down your back?"
- 34. From the Figh Akbar II, as translated at Guillaume 1956, p. 119. More generally, see

Guillaume's good analysis (pp. 118-20) of the elevation of Muhammad in the Sunni tradition.

- 35.On Sa'adya see Adang 1996, pp. 82-83.
- 36. Adang 1996, pp. 19-20.
- 37. The same was true, *mutatis mutandis*, a thousand years later, when Muslims in the Ottoman empire spoke Turkish and Arabic, but seldom any language spoken by "infidels." On Ottoman insularity see Lewis 2002, p. 37: "In these circumstances it is not surprising that there was virtually no knowledge of Western languages. Only Italian had some currency in the Eastern Mediterranean, and served as a medium of communication between East and West. But even this involved Eastern Christians and Jews and rarely, if ever, Muslims."
- 38. For the Quran as God's revelation in Arabic see Sura 26:195: "The faithful Spirit has brought it down into your heart, that you may give warning in eloquent Arabic speech." See also 46:12.
- 39. Schoeler 1996 and especially Schoeler 2002.
- 40. Schoeler concludes that after the Quran the first Arabic text that was written with the intention that it would be published was Sibawayhi's *kitāb* on Arabic grammar, at the end of the eighth century.
- 41. Burton 1990, p. 43.
- 42. *The History of Al-Tabari*. *An Annotated Translation*, published by the State University of New York at Albany, from 1985. A 39<sup>th</sup> volume presents al-Tabari's biographies of various Muslim figures, and the 40<sup>th</sup> volume is an index of the massive work. Volume 5 deals with Sassanids, Byzantines, Lakhmids and Yemen, and the rest deal with Muhammad and the Islamic period, providing historians with much of what is known about the political and military history of the period.
- 43. Burton 1990, p. 45. A story of Jesus' heavenly table is briefly told at verses 113-114 of the Quran's "Table" Sura (Quran 5). Quran 18:8-26 told the Christian myth of the Seven Sleepers.
- 44. Thucydides 2.37.
- 45. This usage follows the glossary provided by Beeston et al. 1983, p. 523.
- 46. On the development of Islamic jurisprudence see Baker and Edge 1990.
- 47. See Makdisi 1981, p. 8: "Islam is, first and foremost, a nomocracy. The highest expression of its genius is to be found in its law."
- 48. Makdisi 1981, p. 282. See also his comments on p. 281: "Education was directed toward religious ends: the salvation and eternal happiness of men and the glory of God. It was directed towards the establishment of God's government on earth. The society at which it aimed was one with God as its leader; the culture it aimed at developing was one inspired by the sacred

scriptures."

- 49. Carter 1990, p. 120.
- 50. Carter 1990, p. 122.
- 51. Carter 1990, p. 123.
- 52. See, for example, Quran 4:88; 5:40-42; 6:59 and 125; 9:51; 10:99-100; 11:34 and 117-119; 17:16; 42:44; 81:28-29.
- 53. I repeat, from Chapter 20, the observations of Gregory Newby (Newby 1988, p. 150, n.2) about this all-important position: "The Arabic term *khalīfah*, 'successor,' has the original sense of riding behind someone on an animal or following behind someone. It starts as an indistinct term, for there was no designated 'office' of calif. The political history of Islam after Muhammad is, in large part, an attempt to define and legitimize the office."
- 54. Nogales 1990, p. 4.
- 55. The Hadith, according to Guillaume 1956, p. 132, "do not contain a single saying of Muhammad's which leaves freedom of action to man. Everything is predestined from the first and a man's fate is fixed before he is born. There are good reasons for believing that these traditions were forged at a time when the controversy was at its height, and their chief value lies in the way they illustrate how far the orthodox were prepared to go in defence of their tenets and the statements in the Qurān."
- 56. Nogales 1990, p. 5.
- 57. On the Asharites see Nogales 1990, pp. 7-9. On *kalām*, Islamic dialectical theology, and on the *mutakallimūn* who practiced it, see Goodman 2003 p.83.
- 58. On the relationship between Shiah Islam and Sufism see Nasr 1970.
- 59. On the beginnings of Sufism see Karamustafa 2007. The bibliography on Sufism is massive. For a helpful introduction to the topic see Schimmel 1975, Shah 1964, or Chittick 2000.
- 60. On the central role of faqr (poverty) in Sufism see Schimmel 1975, pp. 120-24.
- 61. Diyab 1990, p. 426.
- 62. For the twenty chapter headings of the work see Guillaume 1956, pp. 137-38.
- 63. See Diyab 1990, p. 424: "the man who influenced Islamic thought after the sixth/twelfth century more than any other was Abū Hāmid al-Ghazālī."
- 64. Goodman 2003, p. 141.

- 65. On the very complex subject of "the Active Intellect" in Arabic philosophy see Davidson 1992.
- 66. See Goodman 2003, pp 142-43: "Averroes's metaphysical stance is clearly the reflex of the distancing he saw between the spirit of philosophy and the spirit of Islam." Ibn Rushd's Aristotelianism and especially his embrace of Aristotele's understanding of God as the Prime Mover of an eternal universe (rather than the creator and terminator of a temporal universe) was ultimately incompatible with Islam. "Few Muslim writers after Averroes openly and confidently offer to declare, out of reason and critical thought alone, the true character of reality at large."
- 67. In a recent assessment of al-Ghazali and his influence on Islamic philosophy, Professor Adīb Diyāb concluded that al-Ghazali's "conservative attitude had a negative effect on the philosophic movement; after his death it lost its brilliance and independence as the philosophical works of thinkers like Ibn Rushd were exposed to much open hostility." See Diyab 1990, p. 445.
- 68. Origen, Against Celsus 9-10.
- 69. On which see especially Freeman 2002, pp. 221-256 and 301 ff.