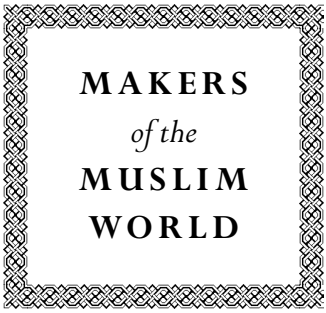
MAKERS *of the* MUSLIM WORLD

Al Ma'mun

Michael Cooperson

ONEWORLD



Al-Ma'mun

SELECTION OF TITLES IN THE MAKERS OF THE MUSLIM WORLD SERIES

Series editor: Patricia Crone,
Institute for Advanced Study, Princeton

'Abd al-Malik, Chase F. Robinson
Abd al-Rahman III, Maribel Fierro
Abu Nuwas, Philip Kennedy
Ahmad ibn Hanbal, Christopher Melchert
Ahmad Riza Khan Barelwi, Usha Sanyal
Al-Ma'mun, Michael Cooperson
Al-Mutanabbi, Margaret Larkin
Amir Khusraw, Sunil Sharma
El Hajj Beshir Agha, Jane Hathaway
Fazlallah Astarabadi and the Hurufis, Shazad Bashir
Ibn 'Arabi, William C. Chittick
Ibn Fudi, Ahmad Dallal
Ikhwan al-Safa, Godefroid de Callatay
Shaykh Mufid, Tamima Bayhom-Daou

For current information and details of other books in the series, please visit www.oneworld-publications.com/subjects/makers-of-muslim-world.htm

MAKERS
of the
MUSLIM
WORLD

Al-Ma'mun

MICHAEL COOPERSON

ONEWORLD
OXFORD

AL-MA'MUN

Oneworld Publications
(Sales and Editorial)
185 Banbury Road
Oxford OX2 7AR
England
www.oneworld-publications.com

A CIP record for this title is available
from the British Library

ISBN 1–85168–386–0

Typeset by Jayvee, India
Cover and text designed by Design Deluxe
Printed and bound in India by Thomson Press Ltd
on acid-free paper

NL08

FOR UZUZUM

CONTENTS

ACKNOWLEDGEMENTS

My interest in al-Ma'mun goes back to 1987, when I traveled to Egypt on a fellowship from the American University of Cairo's Center for Arabic Studies Abroad. On the Center's first guided tour, Dr. Shahinda Karim pointed out the place where al-Ma'mun forced his way into the Pyramid of Khufu. Since then, I have been writing about al-Ma'mun and his world almost continuously. Now, twenty years after my first visit to Egypt, it is a pleasure to thank Dr. Karim for sparking my interest in the scholar-caliph.

I am grateful to Novin Doostdar of Oneworld Publications for suggesting that I write a book for this series. In the course of writing it, I received invaluable bibliographic assistance from David Hirsch, Middle East bibliographer at the University of California, Los Angeles; and from my research assistants, Leyla Ozgur and Awad Awad. I also received help from experts in a range of fields: Ahmad Alwishah in medieval philosophy, Henry Mendell in observational astronomy, Hayrettin Yucesoy in messianism, Anila Daulatzai in Galenic medicine, and Jay N. Cooperson and Nasser Rabbat in architectural history. Pari Iranmanesh provided me with a copy of the Iranian television drama about al-Rida and al-Ma'mun, Mahsa Maleki helped me understand the Persian, Hamidreza Maleki helped me download images from the series, and Olga Davidson extended a generous invitation to speak about it at the Fifth Biennial Conference on Iranian Studies. An equally generous invitation from Antonio Loprieno to speak at the University of Basel provided the impetus for my inquiry into al-Ma'mun's Egyptian expedition. James Montgomery, Monique Bernards,

Josef van Ess, and Hayrettin Yucesoy all furthered, in various ways, my inquiries into the location of al-Ma'mun's tomb. Ali Anooshahr and Hassan Hussain supplied photos and personal accounts of important sites in Khurasan. Lital Levy, Carol Bakhos, Claudia Rapp, Ghazzal Dabiri, Amikam Elad, Hugh Kennedy, Joseph Lowry, Tahera Qutbuddin, Chase Robinson, Devin Stewart, Mairaj Syed, and Joshua Winters supplied important references and, in many cases, invaluable moral support. The external reader, John Nawas, offered many judicious suggestions and saved me from numerous errors. Victoria Roddam, Rebecca Clare, and Helen Coward led me patiently through the editing process, and Judy Kearns supplied expert copy-editing.

My most heartfelt thanks are to the series editor, Patricia Crone, who did not give up when the first draft turned out to be something quite different than what she expected. Instead, she announced that the job would have to be done again and better, making only modest suggestions about how that might be accomplished. She then read and re-read draft after draft, asking the tough questions that made this book into something quite different, and altogether better, than what I expected. I consider myself extraordinarily fortunate to have had such a reader. Thanks to her, I have finally understood al-Ma'mun and his world well enough to write a book like this.

The caliph al-Ma'mun (left) and his advisor al-Fadl ibn Sahl (right), as portrayed by Mohammad Sadeghi and Akbar Zanjanpur in the Iranian television series *The Rule of Love* (director Mehdi Fahimzadeh, Soroush Media Productions, 1996–2000).

Al-Ma'mun's short-lived half-brother al-Amin, as portrayed by the comic actor Rambud Javan in accordance with the image constructed by hostile medieval chroniclers.

Tahir ibn al-Husayn, commander of al-Ma'mun's forces, prepares to lay siege to Baghdad in *The Rule of Love*.

Ali al-Rida, the eighth of the Shiite imams and al-Ma'mun's heir apparent, as portrayed in *The Rule of Love*. The title of the series refers to Ali al-Rida's reign as imam, not al-Ma'mun's reign as caliph. Al-Rida's face is obscured by a halo because Iranian television forbids showing the features of the imams.

1

INTRODUCTION

In 832 CE, while on a visit to Egypt, the caliph al-Ma'mun decided to break into the pyramid of Khufu. At the time, it was among the largest man-made objects anywhere in the world. At 153 meters high, it was nearly three times higher than the tallest building in Iraq, where the caliph had come from. Even today, it dwarfs many of the best-known monuments in the modern world, including London's Big Ben and New York's Statue of Liberty. But because the highway from Cairo to Giza is now lined with billboards and high-rise buildings, today's tourists fail to realize how massive the pyramid is until they are standing beside it. In the ninth century, no building in Egypt or anywhere else was tall enough to block the view.

Besides being more impressive, the pyramids were also more mysterious. In al-Ma'mun's world, the only ancient Egyptian history that people knew about came from religion and popular mythology. As a result, people could only speculate about what the pyramids were. One legend claimed that they were the granaries Joseph had constructed for Pharaoh. According to the Bible, Joseph had "gathered up all the food of the seven years that were in the land of Egypt and laid up the food in the cities" (Genesis 41: 48–49). The Qur'an suggested a different explanation. According to the sacred scripture of Islam, Pharaoh had ordered one of his ministers to "build me a tower that I may reach the paths of heaven and look upon the God of Moses"

(Q. 40: 36–37). There were also legends dating back to Hellenistic times claiming that Hermes, the god of alchemy and astrology, had built the pyramids to keep his secrets safe from Noah's flood. In a world where so little was known about ancient history, such stories were perfectly believable.

The only way to learn about ancient Egypt would have been to decipher the hieroglyphs. In Baghdad, al-Ma'mun had found scholars who were able to translate Syriac and ancient Greek into Arabic. In Egypt, he set out to find someone who could do the same with ancient Egyptian. He was directed to a sage named Ayyub ibn Maslamah, who was reportedly an expert in ancient writing. On the caliph's orders, Ayyub copied inscriptions from pyramids, temples, and obelisks all over the country. He then translated the parts he could understand. Unfortunately, those parts were limited to inscriptions or graffiti in Greek and Coptic (the descendant of ancient Egyptian, written in a modified form of the Greek alphabet). He admitted that he could not make sense of the hieroglyphs, which, he said, were symbols based on the shapes of the stars and planets. Despite Ayyub's best efforts, then, al-Ma'mun was unable to learn anything from the ancient Egyptian texts.

AL-MA'MUN ATTACKS THE PYRAMID

Al-Ma'mun was accompanied on his visit to Egypt by a learned Christian: Dionysius, the archbishop of Antioch. On an earlier visit, Dionysius had noticed a tunnel in the north face of the pyramid of Khufu. He had entered the tunnel and followed it for a short distance before hitting a dead end. Since the structure all around him seemed to be solid, he had decided that the pyramids were not the granaries of Joseph after all. Rather, he had supposed, they were temples built atop the tombs of ancient kings. Acting, it seems, on the archbishop's report, the

caliph did not try at first to use the tunnel. Instead, he tried to punch the pyramid open, or knock it down, by battering it with a catapult. Since the pyramids are in fact largely solid, the pounding had no effect.

Unwilling to give up, the caliph decided to try the archbishop's tunnel. Although it appeared to be a dead end, it might simply be blocked. On this assumption, the caliph's workmen built a fire in front of the blockage, causing it to expand on one side and thus to crack. They may also have used vinegar to weaken the mortar that held the blocks together. After pulling the debris aside, they found that the tunnel continued deeper into the pyramid. An Egyptian author of the thirteenth century describes what they found inside:

> Inside the pyramid were passages leading up, and others leading down, all of them terrifying in appearance and difficult to get through. These passages led up to a cubical room eight by eight cubits in size. In the middle of the room was a basin made of marble. When the top was broken off, nothing was found inside but decayed human remains. At that point the caliph put an end to the expedition (Idrisi, 34–35).

In 1801, the French Orientalist Sylvestre de Sacy published an article arguing that al-Ma'mun cannot have entered the pyramid. But recent work by Egyptologists makes it clear that de Sacy was wrong. The original entrance, which had been covered over after the pyramid was built, would have been invisible. Later, however, Pharaonic-period tomb robbers had made their own tunnel. This tunnel, which had subsequently been blocked off to prevent another break-in, was the one the archbishop had ventured into. By unblocking it, the caliph's men gained access to the passages made by the original builders. As anyone who has visited the pyramid of Khufu knows, the Egyptian author's description of the interior is accurate: a series of narrow passages leads downwards and then upwards to the Great Gallery

and the burial chamber of the Pharaoh. Because the burial chamber had already been robbed in antiquity, there was nothing left for al-Ma'mun to find. But the caliph's expedition was not entirely fruitless: the entrance that he tore out of the rock is the one now used by millions of tourists every year.

Despite his discovery of the burial chamber, al-Ma'mun must have been disappointed. Based on his experience of Greek and Egyptian temples, he doubtless expected the pyramids to contain engraved tablets, books, or inscriptions. He may even have been looking for texts that would help Ayyub decipher the hieroglyphs. But as we now know, the Rosetta Stone, the bilingual inscription that would make the decipherment possible, would not be discovered for another thousand years. And even if they had had access to a Rosetta Stone, al-Ma'mun's translators would probably not have been able to reconstruct ancient Egyptian. The scholars of Baghdad were experts in Arabic grammar, and some were gifted translators of ancient Greek; but historical and comparative linguistics were disciplines centuries away from being born.

THE SCHOLAR-CALIPH

Although modern scholars have doubted the story of al-Ma'mun's Egyptian expedition, medieval Arabic chroniclers (that is, the historians of various ethnicities who wrote in Arabic) never did. For them, pyramid-breaking was behavior typical of a caliph famous for his love of learning and insatiable curiosity. Al-Ma'mun, they note, was among the caliphs who commissioned the translations of ancient philosophical works from Greek and Syriac into Arabic. His patronage of mathematicians and engineers produced several scientific breakthroughs, including the first treatise on algebra and a relatively accurate measurement of the circumference of the earth. He

himself had an expert's command of both the "Arab sciences," that is, grammar, poetry, and the like, and the "foreign sciences," that is, logic, mathematics, medicine, astronomy, statecraft, and other disciplines known through the translations from Middle Persian and Greek. Once a week, we are told, he would invite representatives of different religions and schools of thought to defend their positions, and he would often join in the discussions himself.

For a good many Arabic chroniclers, al-Ma'mun's learning was a dangerous thing. Unlike his predecessors, he was not content with the usual responsibilities associated with the office of caliph: collecting taxes, appointing governors and judges, safeguarding the pilgrimage route, and launching campaigns against the pagans and the Byzantines. Instead, he sought to revive the original meaning of "caliph": that is, God's deputy on earth. For him, this title meant that he was uniquely qualified to deliver the community from error in matters of religion. He seems to have adopted this conception of caliphal authority to justify his seizure of power in 813. But he must also have taken the idea seriously. Otherwise, there is no good explanation for the wildly controversial policies he adopted once his position was secure.

THE WORLD INHERITED BY ISLAM

As the caliph's fascination with the pyramids indicates, the world he lived in was already ancient. In that sense, it was very different from the European world of his older contemporary Charlemagne (d. 814, when al-Ma'mun was 28 years old). By the ninth century, Southwest Asia had already witnessed the rise of three generations of civilizations. The first was that of the ancient world. These civilizations included the Egyptian culture that had produced the pyramids, as well as the Mesopotamian

empires of Hammurabi, Sargon and Nebuchadnezzar, whose techniques of irrigation and mud-brick construction were still in use in the caliph's home region of Iraq. This first generation also produced the monotheistic religion of the Israelites. By al-Ma'mun's time, people had only the haziest knowledge of these civilizations, but their legacy was still alive, partly in inherited patterns of thought and ways of doing things (such as the techniques of irrigation and brick construction) that people were not conscious of owing to anyone and more particularly in the Hebrew Bible, which supplied the monotheist faiths with many of their fundamental stories and ideas.

The second generation was that of Greco-Roman civilization. At the time of the caliph's visit to Egypt, the only major city there was Alexandria, which had been founded by Alexander the Great. Alexander and his heirs had carried Hellenistic culture as far east as Afghanistan. Their successors, the Romans, controlled North Africa and the eastern Mediterranean coast, with occasional forays into the deserts of Syria and Arabia. It was under their rule that Christianity arose among the Jews of Palestine. In the fourth century CE, the Roman empire moved its capital eastward to Constantinople and adopted Christianity as its official faith. Though many of them eventually broke away from the Church of Rome, the Christians of the eastern part of the empire maintained the legacy of Hellenism. When the caliphs began looking for scholars who could translate ancient Greek, they found them among the Christians of Iraq.

The third generation was that of Islamic civilization, still in the process of formation but already recognizably something new. Islam, which eventually came to see itself as the successor to Judaism and Christianity, had arisen in Arabia, in the buffer zone between the Byzantine and Persian empires. After the death of the Prophet Muhammad in 632, the Muslim Arabs had emerged from their peninsula to conquer most of the

territories that had belonged to the first and second generation of Southwest Asian civilizations. These territories became the heartlands of the new dispensation, the empire established by the Arabs, except that they did not call it an empire. Rather, they saw it as a haphazard collection of territories united only by the fact that they had come to be ruled by a representative of God, called the caliph (from the Arabic *khalifat Allah*, "deputy of God"). His Muslim subjects constituted the *ummah* or community of believers. Other monotheists were called *ahl al-kitab,* "people with scriptures." Having submitted to Muslim rule, they were given status as *ahl al-dhimma* or "protected peoples;" they were to be taxed and tolerated. All other peoples were *mushrikun*, polytheists or pagans. It was obligatory for Muslims to fight them, and – in the opinion of some legal scholars – to force them to accept Islam. In practice, however, it seems that all conquered peoples were accepted as *ahl al-dhimma*.

In the time of al-Ma'mun, who lived from 786 to 833, the Hellenistic world still survived in the form of the Byzantine Empire. Though Greek speaking and Christian, the Empire still thought of itself as Roman and was acknowledged to be such by the Arabs, who called it *Rum*. By the early ninth century, it had lost North Africa, Egypt, Palestine, and Syria to the Arabs, and parts of Italy to the Lombards. Its territory was thus reduced to Anatolia (the Turkey of modern times) and parts of Italy, Greece, and the Balkans. But the empire survived, partly because its capital could not be taken. Constantinople was ringed by unbreachable walls and its defenders were equipped with "Greek fire," a flaming liquid that could be propelled great distances and burn even on the surface of water. Even so, the caliphs never renounced their hope of conquering Rum once and for all. For their part, the Byzantine emperors never gave up the dream of re-conquering their former provinces. This conflict of ambitions led to centuries of recurrent warfare in the frontier regions of Syria and Anatolia.

The Arab Muslim armies had been even more successful in the east, where in the short space of five years they had overthrown and overrun the entire Persian empire. Persian civilization had its roots in the first generation of civilizations in the region. Under the Achaemenid dynasty, Persia had taken over the Mesopotamian empires of Assyria, Babylon, and Elam. It was then conquered by Alexander the Great, and thus briefly exposed to Hellenism. After regaining its independence under the Parthians, it was eventually reunited by the emperors of the Sasanian dynasty. The Sasanian state religion, Zoroastrianism, was a dualist religion based on the worship of Ohrmazd, "the wise lord," a deity representing the forces of good against Ahriman, the deity representing evil. An important offshoot of the Judaic tradition in Iran was Manicheaism, a Gnostic religion that postulated a similar struggle between good and evil, but cast the cosmos as inherently evil. The Sasanian empire had been defeated by the Byzantines in 628 after a long war and had not yet regained its footing when the Arabs appeared on its doorstep. After the Arab conquest, Zoroastrianism was included among the protected faiths, although Manicheaism was persecuted as a heresy.

MUSLIMS: A DIVIDED MINORITY

Even after the conquests of the 630s and 640s, the Arabs constituted a small minority in their new territories: as few as 500,000 in a population of perhaps 30 million, according to one estimate. Thus, the vast majority of people who lived under Muslim rule were adherents of other religions. In the formerly Byzantine territories of Egypt and Syria, the population was overwhelmingly Christian. Iraq, which had been part of the Sasanian empire, was home to Jews, Christians, Gnostics, and pagans. In addition to housing the capital of the Abbasid

dynasty, it was the seat of the Exilarch of the Jews and the Catholicos of the Nestorian Church. Baghdad proper, as well as the territory around it, was dotted with churches and monasteries. Nearby also were the Talmudic academies of Sura and Pumbeditha, where the Jews had maintained centers of religious learning since the time of the Babylonian exile. Further east, in Persia proper, the majority religion was Zoroastrianism. There were also substantial communities of Jews, Christians, and Manicheans.

Just as Islam was a minority religion in Southwest Asia, so Arabic was a minority language. In Egypt, most Christians spoke Coptic, the lineal descendant of the language preserved in the hieroglyphs. Some also spoke Greek. In Syria-Palestine, too, there were speakers of Greek, although the majority of the population there and in Iraq used Aramaic, a Semitic language related to Hebrew and Arabic. One dialect of Aramaic, Syriac, served as the literary and liturgical language of the Eastern Christians. Further east, the dominant language was Persian, an Indo-European language entirely distinct from Arabic. Because its cumbersome scripts were known only to a relatively small number of specialists, the old written language of Iran, called Pahlavi or Middle Persian, eventually died out. But the spoken dialects remained in common use throughout the vast area once ruled by the Sasanians. In Baghdad, which had been built near the former Sasanian capital of Ctesiphon, many people (including, in all probability, al-Ma'mun) were more or less bilingual in Persian and Arabic.

In the wake of the Arab conquests, many adherents of other religions converted to Islam. Customarily, the conquerors took non-Muslim prisoners of war as slaves, often transporting them far from their native regions. Cut off from their former languages and religious communities, the slaves adopted the ways of their masters, including Islam. Many of these slaves, or their children, were subsequently freed. According to Islamic law,

the manumission of slaves was a meritorious act. Moreover, it was possible for a slave to buy his or her freedom. Many freed slaves chose to remain in the service of their former masters, and the relationship between the two parties was often surprisingly warm. Even so, non-Arab converts were hardly welcomed with open arms. To an Arab Muslim of the first centuries of Islam, it was inconceivable that a freed slave could ever stand with him on an equal footing. The Umayyad dynasty, which ruled from 661 to 750, drew its fighting men from the Arab tribes, and almost all the commanders were Arabs. By contrast, the anti-Umayyad revolutionary movement that made its appearance in the mid-eighth century drew some of its leaders and many of its fighting men from the descendants of freedmen. As a result, non-Arab converts came to play a critical role in the establishment of the new Abbasid regime.

THE COMING OF THE ABBASIDS

In the decades that followed the death of the Prophet Muhammad in 632, the Muslim community was divided by differences of opinion regarding the nature of leadership. All factions agreed that the leader should serve as the community's imam, or guide to salvation. Therefore, any dispute over the identity of the leader implied the formation of a new religious community (even though all factions claimed to be upholding the one true and original faith). One of the most important divisions was between those who accepted the advent of the Umayyad dynasty in 661 and those who did not. Among the rejectionists were those who believed that the imam should be a member of the Prophet's clan of Hashim. (According to al-Ma'mun, who agreed with this position, God had caused the imams to be born into the Prophet's family in order to save believers the trouble of searching for them.) The two leading

families that met this criterion were the Alids, the descendants of Muhammad's cousin and son-in-law Ali; and the Abbasids, the descendants of Muhammad's uncle al-Abbas. The Umayyads, by contrast, were the descendants of the Prophet's fiercest enemies. When opposition to the Umayyad caliphate came out into the open, it took the form of a demand that the reigning caliph be replaced with "a member of the Prophet's family acceptable to all," a figure designated by the Arabic term *al-rida min al Muhammad*, commonly abbreviated to *al-rida*.

It was under this slogan that the Umayyad dynasty of Damascus was overthrown by a revolution that broke out in the eastern Iranian province of Khurasan. This province had been a large and powerful one in Sasanian times, and the first phase of the Arab conquests had done little to displace the local aristocracy. The Umayyads had later settled tens of thousands of Arabs there as permanent colonists. These settlers had intermarried with the local population and thus became to a certain extent Persianized in language and culture. At the same time, their dependents (that is, their slaves and freedmen) were becoming Islamized. Between them they formed a new demographic group: Muslims who stood out from the rest of local society by virtue of being Muslims, and from the rest of the Muslim population by virtue of being Khurasanis. Like many other inhabitants of the empire, the Khurasanis had grown to resent the Umayyads, who treated the province merely as a source of revenue. Stirred to action by missionaries who promised to bring *al-rida*, the Khurasanis overthrew the Umayyads and awaited the appearance of a new leader, apparently on the assumption that he would be chosen by consultation. In the event, a member of the Abbasid family had simply proclaimed himself caliph, narrowly beating out an Alid who was poised to do the same.

Once in power, the victors had to control the forces they had set in motion. To ensure the loyalty of their Khurasani supporters, the Abbasids settled them on plots of land in the new

capital of Baghdad. The descendants of Ali and their partisans, the Shiites (from the Arabic expression *shi'at Ali*, "the party of Ali"), were harder to placate. To counter Shiite claims that only a descendant of Ali could serve as imam, the Abbasids insisted that their own family was the one destined to usher in a new era of divinely inspired leadership. The dynasty's messianic pretensions are evident from the regnal titles adopted by the caliph. The first caliph of the new dynasty was called al-Saffah, a title whose precise meaning is a matter of debate. His successors were al-Mansur, "the one granted victory by God," al-Mahdi, "the rightly guided," al-Hadi, "the right guide," al-Rashid, "the righteous," and al-Amin, "the trusty." The Alids, however, were not impressed. Having fought the Umayyads longer than the Abbasids had, they felt pushed aside by the new regime. In response to Shiite uprisings, the Abbasids adopted a carrot-and-stick policy. Those Alids who remained quiet were granted stipends from the treasury or simply left alone. Those who urged their followers to rise against the government were ruthlessly suppressed.

The seventh caliph of the Abbasid dynasty was Abd Allah al-Ma'mun ("the trustworthy"), who came to power in 813 at the age of 27. To some extent, his career can be understood as an attempt to deal with the questions posed by the Abbasid revolution. Who is the legitimate leader of the Muslim community? What is the basis of that legitimacy? To whom might it be delegated? If it derives ultimately from God, what are its limits? Of course, such questions could not be answered in the abstract. Early in his career, al-Ma'mun had to justify his seizure of power not from an Umayyad or Alid rival but from his own half-brother. When al-Ma'mun did come to power, it was because he succeeded, like his predecessors, in mobilizing the province of Khurasan. Like his predecessors, too, he then had to master the forces he had set in motion. Unlike earlier caliphs, however, he used his power to propose radical new

solutions to the questions of legitimacy and religious authority. It cannot be said that his policies were successful, at least as short-term measures. But they proved extraordinarily important for the formation of the early Islamic community, if only because they demonstrated the limits beyond which even the deputy of God could not go.

THE PROBLEM OF THE SOURCES

Arabic chroniclers wrote thousands of pages about al-Ma'mun. At first glance, this material appears to contain a wealth of information. Like most early Arabic historical texts, the works that cover the caliphs are full of direct quotations from people who were supposedly present at whatever event is being described. When the eyewitness lived long ago or far away, the chroniclers will often explain how the report reached them: that is, they will name each of the intermediaries between the eyewitness and themselves. Here, for example, is a report about al-Ma'mun's personal appearance:

> Ali ibn Ahmad ibn Umar al-Muqri' reported to us that Ali ibn Ahmad ibn Abi Qays had reported that Ibn Abi Dunya had said: "Al-Ma'mun had a fair complexion with a yellowish cast. He was well built, with a handsome face and graying hair. His eyes were large, his beard was long and thin, and his brow was narrow. He had a mole on one cheek" (Khatib, s.v. 'Abd Allah ibn Harun).

According to the list of names at the beginning of the report, al-Muqri' faithfully reported to the author what Ibn Abi Qays had heard from a witness who had met al-Ma'mun face to face. For pre-modern audiences, this kind of disclosure was reassuring: it meant they could evaluate the report based on what they knew about the people who had transmitted it. Present-day historians like the name-lists too, for the same reason.

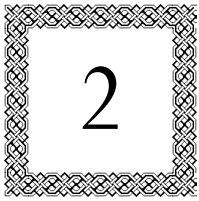
The sources also inspire confidence because they rarely report events that are unbelievable in themselves. Compared to some of their Byzantine and Western European contemporaries, the Arabic chroniclers of the Abbasid period have little taste for divine intervention or superhuman virtue. Most often, they seem to be reporting the equivalent of office gossip: who said what to whom, whose fault it was that something unpleasant happened, and how poor so-and-so got blamed for it. For this reason, their reports are not always easy to understand. But they do give the impression of being someone's idea of what really happened.

On closer investigation, one realizes the limitations of this sort of material. For one thing, the act of transmission itself inevitably distorts whatever report is being transmitted. For another, we know from other branches of Arabic literature that the citation of eyewitnesses and transmitters is no guarantee of authenticity: even bald-faced lies come with a list of authorities attached. Clearly, something is amiss when we find contradictory accounts of the same event in different sources, or even the same source. Often, too, the opposite problem occurs: accounts of supposedly unrelated events are reported in the same way. Too often for comfort, we find that all the reports dealing with a particular topic are composed according to a single model. For example, it may seem plausible that a ragged holy man once entered the caliph's palace to rebuke him and warn him of God's judgment. But when the same ragged man enters the palace of one caliph after another, it is clear that we are dealing with a literary device. As it happens, there is good reason to believe holy men rebuked rulers. But it is also clear that each such incident was remembered and retold with all of the others in mind. As a result, the reported details of any one incident are likely to be wrong.

In the case of a controversial figure like al-Ma'mun, the sources seem especially untrustworthy. During his career as

caliph, he managed to infuriate nearly everyone. As a rule, the chroniclers and their sources use supposedly factual narration to support a particular (and usually unstated) interpretation of his behavior. Consequently, we find contradictory explanations of the same event. For example, one set of chroniclers declares – without citing any eyewitness testimony – that al-Ma'mun's heir apparent died from eating too many grapes. A second group, citing several independent eyewitness reports, insists that he died because the caliph poisoned him. Finally, a third set of chroniclers merely reports that the heir apparent died, without elaboration (on this incident, see Chapter 4). It should now be clear why (as one modern scholar has put it) that a modern caliphal biography containing only established fact would run to no more than three pages.

This biography of al-Ma'mun will be a bit longer than three pages, mostly because a recital of the known facts will not mean very much without some explanation of the historical background. The next chapter will use an account of al-Ma'mun's education as a framework for presenting those elements of Abbasid culture that shaped his life. The following two chapters deal with the two crises of succession that marked his reign. Chapter 3 explains his revival of religious leadership and his use of it during his successful bid to overthrow his half-brother, and Chapter 4 deals with his nomination of an heir apparent who belonged to the rival house of Ali. The next two chapters treat different aspects of what has been called his penchant for rationalism. Chapter 5 surveys the activities of the astronomers, physicians, translators, engineers, and cartographers whose activities he sponsored. Chapter 6 describes the various manifestations of his absolutist ambitions during the last years of his reign, including his unprecedented attempt to use theology as a weapon against the scholars who threatened his religious authority. Finally, a brief epilogue will look at how later generations judged his role in Islamic history.



EDUCATION

Because of the nature of Abbasid family life, the story of al-Ma'mun's childhood features a large cast of characters. The male head of any household could have up to four wives and an unlimited number of concubines. A typical household would also include slaves, freedmen, and the descendants of freedmen, some of whom might be on intimate terms with the members of the family. The Abbasids furthermore had close relationships with other families, especially the Barmakis, whose senior men served them as viziers. The Abbasids and the Barmakis had for two generations followed the custom of nursing each other's children, a practice that created bonds of kinship between the caliphs and their advisers. For all these reasons, many people had important roles to play in al-Ma'mun's education and in the arrangements made for the caliphal succession.

PARENTS, STEP-PARENTS, AND FOSTER PARENTS

Al-Ma'mun was born in 786, the year his father, Harun al-Rashid, became caliph. His mother was a slave concubine named Marajil. According to one account, she had entered the caliphal household as a prisoner of war. Her father may have

been Ustadhsis, the leader of a sect that had split off from Zoroastrianism and adopted some elements of Islam. The members of the sect had rebelled in Khurasan and been defeated, and the surviving members of the leader's family had been sent to Baghdad. If Marajil was among the captives, she would have been raised in the caliphal household before being given as a concubine to al-Rashid. Such an account is plausible, at least as far as the treatment of non-Muslim prisoners of war is concerned. Even so, it may have been invented, possibly to discredit al-Ma'mun by making him the grandson of a heretic and a rebel. In any event, Marajil's connection to Khurasan was her major contribution to al-Ma'mun career. As a mother, she played no role in his life, since she died soon after he was born.

Bereft of his mother, al-Ma'mun appears to have received some attention from his father's wife Zubayda. In later days, the two had occasion to exchange lines of poetry in which she addresses him with obsequious flattery and he calls her "the best of mothers" (Ma'mun, 59). But these verses were composed during a political crisis when the two had practical reasons for cozying up to each other. During al-Ma'mun's childhood, Zubayda was more concerned with promoting the interests of her own son, al-Amin.

In 791, al-Rashid chose al-Amin, who was six years old at the time, as his heir apparent. According to some accounts, al-Amin was six months younger than al-Ma'mun. Other sources, however, suggest that he was older. The confusion on this point seems to be a result of later controversies over the legitimacy of the succession arrangements. What the sources do agree on is that al-Amin was of noble Arab descent on both sides: his father al-Rashid and his mother Zubayda were both members of the Abbasid family. Al-Ma'mun, on the other hand, was the son of a slave concubine. This circumstance did not disqualify him from becoming caliph, but it seems to have put him at a disadvantage with regard to his half-brother.

Following the foster-family arrangement, both al-Amin and al-Ma'mun were sent away to be raised by the Barmaki family of viziers. After what seems to have been a brief stay with a relatively obscure member of the clan, al-Ma'mun was placed in the care of Ja'far al-Barmaki, governor of the western provinces and close friend of al-Rashid. This change in venue suggests that the caliph had begun to think seriously about preparing al-Ma'mun for an eventual role in the succession. But it was not until six or seven years after the appointment of al-Amin (that is, in 798 or 799) that al-Rashid decided to name al-Ma'mun, who was then twelve or thirteen, as his second heir apparent. Such arrangements had been made before, and had on occasion even been respected. But the brothers' closeness in age, not to mention the possibility that al-Amin might alter the arrangement upon assuming office, offered little assurance that al-Ma'mun would ever become caliph.

TOPOGRAPHY AND DOMESTIC SPACE

Before discussing al-Ma'mun's education, it will be useful to look at the physical environment in which he and his contemporaries spent their lives. The residences of the Abbasid caliphs, along with everything else built in eighth- and ninth-century Baghdad, have disappeared without a trace. But the Arabic chronicles contain enough information about the city to give a sense of where its major features were located. There are ruins of Abbasid-period buildings in other parts of Iraq, notably in Samarra; and there are also enough examples of craftsmanship from the period to give an idea of domestic furnishings. Finally, the chronicles allow us a glimpse of what the ruling class spent money on and why.

The original caliphal residence in Baghdad was at the center of the Round City, a double-walled enclosure four miles

(6.4 km) across built by the second Abbasid caliph, al-Mansur, in 762. It was the symbolic center of the empire. However, none of the caliphs actually lived inside it for very long, preferring instead to build new residences alongside the nearby Tigris River. Al-Ma'mun was born in Yasiriya, on the east bank of the Tigris, where his father lived before becoming caliph. After assuming office, al-Rashid moved to the Palace of Eternity, which stood northeast of the Round City along the road that led to Khurasan. Just beyond the palace gardens lay the Tigris, which was spanned by a bridge made of boats lashed together with ropes or chains. A number of anecdotes show al-Ma'mun playing with his father, presumably in this setting.

Like all pre-modern buildings in Mesopotamia, Abbasid-period houses were made of mud brick, which is relatively cheap and easy to produce, and which is the staple building material in regions without easy access to timber. A mixture of soil, straw, and sand was shaped into bricks and dried in the sun or (to make a more durable product) fired in a kiln. Mud brick can be used to build large structures quickly and efficiently. But it deteriorates rapidly in comparison with stone, which is why very few of these structures remain intact today. Those that have survived are palaces and barracks, all of which are square or rectangular in plan. The basic unit of design is a block of rooms built around an open space, with several such blocks arranged around a central courtyard. The small inner courts were the major source of natural light and ventilation: even where rooms adjoined an outer wall, there were few windows. Upper-storey rooms may have been cooled using a shaft ventilation system and ground-floor ones with canvas sheets soaked in water. In the summer, residents slept on the roof. In winter, they generated heat with braziers (pans filled with burning coals), which were also used to fumigate the rooms with incense.

Most of the information we have about how the common people lived comes from written accounts, including one in

which the essayist al-Jahiz (d. 868) adopts the voice of a landlord. The building that he owns is a multi-storey structure built of plastered mud brick with floors made of palm trunks and reeds. He complains that his tenants cook on the roof, where only a thin layer of clay protects the wooden joists and reed thatch from fire. They also reduce the value of the property by clogging the drains, yanking on the doors and breaking the locks and hinges, and pounding their laundry on the plaster floor instead of on the stone provided for that purpose. Their children dig holes in the courtyard, drive sticks into the walls, break the wooden shelves, and roll toy carts along the floor. When they move out, the tenants steal everything they can carry, including the ladders, the water jars, and the sticks of wood used to bar the doors.

What we know about the residences of the wealthy comes from archaeological evidence as well as written descriptions. The walls were covered in stucco, which was molded, carved, stamped, or engraved in decorative patterns. They might also be draped in tapestries, decorated with fresco paintings, or covered in gold leaf, lapis lazuli, and imported teak. The floors were paved in marble or mosaic, or covered with glass or ceramic tiles. Wooden furniture did exist, but people seem mostly to have sat on rugs, mattresses, or cushions. People drank water or wine (but not coffee or tea, both of which were still unknown in Southwest Asia) from glass jugs and goblets, and served their meals on ceramic plates and bowls painted with animal or vegetal motifs. In the caliph's household, utensils were made of gold or silver, which explains why al-Ma'mun's valet was reportedly in the habit of stealing his master's washbowls.

In Abbasid-period society, public displays of wealth were thought to invite trouble. Indoors, however, one was expected to put on a show to honor one's guests and patrons – that is, the men of standing who had contributed to one's prosperity. Al-Ma'mun's foster father Ja'far al-Barmaki was famous for his

extravagance, which he justified as a display of loyalty to the caliph. A visitor who needed money to pay a debt or purchase property had only to mention the matter in Ja'far's presence. When the guest returned home, he would find that the debt had been paid or the property purchased on his behalf (sometimes with the caliph's money). Not surprisingly, Ja'far's protégé al-Ma'mun was later to gain a reputation for liberality. (When, for example, he discovered that the servant was stealing his washbowls, he jokingly offered to buy them back.) If Ja'far taught him to spend freely, it was a useful lesson: there was no better way for a caliph to ensure the loyalty of his dependents than by displaying an extravagant concern for their welfare.

ELEMENTARY EDUCATION

The sources do not explain exactly what al-Ma'mun's program of study was. They do, however, provide an account of the curriculum followed by his half-brother. Al-Rashid's instructions to al-Amin's tutor run as follows:

> Have him [al-Amin] read the Qur'an and study the reports [of historical events]. School him in the recitation of poetry, teach him the practices of the early Muslims, and instruct him in the forms of speech and extemporaneous address. Forbid him to laugh except when laughter is appropriate. Teach him to show respect for the senior members of the family of Hashim when they visit him, and to seat the generals appropriately when they attend him. Let no hour pass without giving him the benefit of some new piece of knowledge, but don't let him be bored or overwhelmed. Don't go too easy on him, and don't allow him to enjoy being idle. Try to discipline him by winning his heart; but if that doesn't work, be stern and harsh with him (Mas'udi, ¶ 2523).

More specific information about the curriculum can be gleaned from a contemporary list of subjects taught to children.

The list mentions reading and writing, arithmetic, the Qur'an, calculation of inheritances, grammar, poetry, prosody, and historical reports. The ordering of these items appears to reflect the order in which they were taught. Reading, writing, and simple calculation came first, followed by the memorization of the Qur'an. The latter is no mean feat, since the text is approximately 6300 verses long and must be recited with precise attention to elision, vowel length, and grammatical inflection. In traditional Qur'an-schools today, students learn the text by writing each verse and learning it by heart before wiping the slate clean and moving on to the next. The same method may have been used in al-Ma'mun's time as well. But knowing the text still meant being able to recite it (which al-Ma'mun reportedly always did in a very loud voice because his first teacher had been hard of hearing).

The memorization of the sacred text set the stage for the next item, the calculation of inheritances. Among the verses of the Qur'an are several that specify how legacies are to be divided. These verses were used as a basis for teaching simple algebra. Al-Ma'mun was reportedly able to perform complex calculations of this kind with surprising ease. On one occasion, for example, a woman complained that her brother had left an inheritance of six hundred dinars but she had received only one. Al-Ma'mun replied that if the deceased had been survived by his mother, his wife, two daughters, and eleven brothers, then the woman's share would indeed be one dinar.

GRAMMAR

The next item in the curriculum was grammar. In a process that was nearing completion during al-Ma'mun's childhood, scholars had developed a sophisticated set of terms and concepts for describing and analyzing the Arabic language. They could find the roots of words, use the principle of analogy to

explain word-formation, and describe the relationship between the form of a word and its meaning. They could explain how sentences work and they could account for exceptions by postulating that certain elements had been omitted by the speaker. They could discuss utterances with reference to the speaker's intentions and to the context of utterance, and they could even describe what happens when a speaker makes a mistake and starts over. These achievements, which may have been inspired by contact with the Greek school tradition, were exceptional for their time and place. Many literate cultures never subjected their own language to systematic analysis. Rabbinic Judaism, for example, had to borrow the categories of Hebrew grammar from books written about Arabic.

The reason for studying grammar was that it was indispensable for a precise understanding of the Qur'an. One report of a quiz organized by al-Rashid illustrates how the sacred text was used to convey grammatical principles at the elementary level. In the presence of his sons, the caliph summoned a grammarian and asked him how many pronouns there are in the expression *fa-sa-yakfikahum* (Qur'an 2:137), which means "then He shall protect you from them." The grammarian explained that there are three: 'He' referring to God, 'you' referring to the Prophet, and 'them' referring to the unbelievers (Tabari, 3, 759). This answer agreed with what the princes' tutor had taught them, and al-Rashid pronounced himself satisfied.

The insistence on grammatical training reveals some of the differences between Muslim and European Christian attitudes toward their sacred texts. In Europe, one did not learn to read by studying the Bible. The only available translation was in Latin, and only clergymen were permitted to read it. As late as the sixteenth century, translating the Scriptures into a language that laymen could understand was punishable by burning at the stake (as happened to William Tyndale in England in 1536). Among Muslims, on the other hand, education began with the

Qur'an, and even small boys were expected to be familiar with the original text of the revelation. This was less of a challenge for them than it would have been for their counterparts in Europe, since the Qur'an was written in a language similar to the one that many people spoke. Those who did not know Arabic were encouraged – and often indeed forced – to learn it. With the additional advantage of grammatical training, al-Ma'mun felt fully qualified to make his own judgments about the meaning of the Qur'an. It is hard to imagine his older contemporary Charlemagne doing the same thing with the Bible. In this respect, al-Ma'mun stood closer to the Byzantine emperors, most of whom could read the Gospel and the Church Fathers in the original, than he did to the kings of Europe.

POETRY

After grammar came poetry and prosody (that is, the rules of poetic meter). In addition to sharpening one's appreciation for the language of the Qur'an, poetry was thought to embody the history of the Arabs before and after Islam. The Arabs had used it, and were still using it, to express praise of their chiefs, contempt for their enemies, admiration for their lovers, and grief for their dead. Therefore, it provided a stock of appropriate sentiments for all occasions. As one famous Baghdadi poet had sarcastically pointed out, the Abbasid court bore little resemblance to the Bedouin environment where the best poetry was said to have been produced. But the caliphs nevertheless maintained the ancient Arabian custom of paying for poems of praise and congratulation. If they did not pay, poets were certain to pronounce memorable lines of invective. Among educated people, moreover, the ability to quote – or better yet, compose – a line of poetry that expressed the essence of a scene or event was counted among the social graces.

Al-Ma'mun was an avid student of poetry. One anecdote of his childhood shows him scribbling poetry on a wall, much to his father's amusement. In later life, he could quote appropriate verses for any occasion. One court poet told the following story about him: "I recited for al-Ma'mun an ode of my own composition, one hundred lines long, containing praise of him. But as I recited the first half of each line, he would recite the second half before I could, using the same rhyme-word I had in mind" (Tabari, 3, 1151). This feat is not as unlikely as it may appear, since classical poetry tends to run in certain formulaic patterns. Given the meter, rhyme, and meaning of a poem, a competent poet could draw on a reservoir of stock phrases to complete any given half-line. Even so, to complete one hundred lines in a row off the top of one's head was a feat worthy of a professional poet.

In addition to completing other people's poems, al-Ma'mun was skilled at composing verses of his own. Many of the poems credited to him were supposedly spoken in the course of his relationships with one or another concubine. Several play on the conceit that the woman, though a slave, has enslaved the caliph. For example:

> What harm will it do to speak a word?
> Will you suffer if you greet me?
> I do suffer, though I am king,
> When you so cruelly treat me (Ma'mun, 99–100).

Such verses need not be taken as evidence for al-Ma'mun's state of mind. Indeed, the fact that this poem was preserved suggests that it was composed not in the heat of passion but rather as an exercise. Moreover, classical Arabic compilers tended to attribute poems to the person they thought likeliest to have composed them. Therefore, a poem whose speaker claims to be a king might have been attributed to al-Ma'mun whether he composed it or not. This particular poem may

nevertheless be authentic, since his name appears in it (the original says "I am the king al-Ma'mun," which unfortunately spoils the meter of the translation).

HISTORY AND HADITH

The next item mentioned in the ninth-century curriculum is *akhbar* or "historical reports." The term *akhbar* refers to knowledge of the past, which included pre-Islamic Arabian lore and Sasanian dynastic history as well as the events of early Islam. It can also refer to reports about the Prophet, his contemporaries (called the Companions), and the early Muslim community in general. To the extent that such reports were treated as history, they were called *akhbar*. But when reports about the Prophet were used to establish doctrine and law, they were called Hadith. Al-Ma'mun is said to have "heard Hadith": that is, to have sat with teachers who recited reports of what the Prophet had said or done, along with a list of transmitters for each report.

The Abbasids, who were descended from the Prophet's uncle, are said to have favored Hadith reports transmitted by their ancestors. The following story from al-Ma'mun's later life gives an example of one such text, along with the appropriate occasion for citing it. The narrator is Yahya ibn Aktham, the chief judge, who had the unusual privilege of sleeping in the same room as the caliph:

> Once I spent the night at the caliph's residence and felt thirsty in the middle of the night. I got up, and al-Ma'mun said, "Can't you sleep?" I told him I was thirsty, and he told me to stay where I was. Then, by God, he got up, went to the water jug, came back with a cup of water, and stood by me as I drank. I protested: "Commander of the Faithful! Aren't there any servants around?" He told me they were asleep. "But I could have gotten the water myself," I said. "A guest," he replied, "should never have to serve

himself." Then he said: "Yahya, let me recite a Hadith for you. Al-Rashid related to me, having heard it from al-Mahdi, who heard it from al-Mansur, who heard it from his father, who heard it from Ikrimah, who heard it from Ibn Abbas, who heard it from Jarir ibn Abd Allah: 'I heard the Prophet, may God bless and save him, say: "The lord of a people is their servant" ' " (Khatib, sv. Abd Allah b. Harun).

As this text illustrates, one did not simply quote the Prophet. Rather, it was necessary to report the name of each person who had transmitted the Hadith. In this case, al-Ma'mun is claiming to have heard the report from his father, who heard it from *his* father, and so on, all the way back to an eyewitness who was present when the Prophet made the statement. As we have seen, chroniclers used a similar format to present reports about historical events.

As it happens, this anecdote may be spurious. All the stories that show al-Ma'mun reciting Hadith can be traced back to one source, Yahya ibn Aktham, the narrator of the anecdote given above. Yahya was a believer in Hadith, and may have done his best to make the caliph seem to be one also. But, as will become evident, al-Ma'mun had serious reservations about the usefulness of Hadith as a means of solving religious questions.

LEARNING TO THINK

"Memorization," says one ninth-century author, "produces nothing but imitation, while learning to draw conclusions for oneself leads to certainty and confidence" (Jahiz, *Rasa'il* 3, 29). Much of al-Ma'mun's education, and indeed much of the learning current in his day, was based on memorization. Two fields, however, were not. The first of these was *kalam*, meaning the technique of dialectical argumentation ("If your opponent says X, you should say Y") as well as the field that used it, namely

theology. The second field of rational inquiry was philosophy. Its technique of argument was syllogistic rather than dialectical: that is, it was based on Aristotle's rules for drawing valid conclusions from a given set of premises. The subjects explored by the *kalam*-debaters and the philosophers often coincided, but their respective approaches were different. A *kalam*-debater might ask, for example, whether God can break His promises to reward the righteous and punish the wicked. A philosopher, on the other hand, would seek to determine the nature of good and evil, or ask whether the existence of an afterlife could be proven on some basis other than the scriptures. Among Muslims, philosophy was still in an embryonic stage during the early Abbasid period. Its heyday was to begin at the end of al-Ma'mun's reign, after many Greek philosophical works had become available in Arabic translations. *Kalam*, on the other hand, had appeared early in Islamic history, evidently through contact with Syriac Christianity. Al-Ma'mun may have been exposed to it through his foster family, the Barmakis, who reportedly sponsored gatherings of *kalam*-debaters.

Several of the *kalam*-debaters associated with the Barmaki family of viziers and later with al-Ma'mun are specifically identified as belonging to a group known as the Mu'tazilis. Among other things, the Mu'tazilis believed that God did not resemble human beings in any way. This position required them to interpret the Qur'an metaphorically. For example, there are two passages that describe God as holding something in His hand (Q. 2: 245 and 39: 67). According to the Mu'tazilis, "hand" in these passages means "power." By a similar process of reasoning, they rejected the literal interpretation of the passages where the Qur'an describes itself as "the speech of God" (2: 75, etc.) and "a word from God" (3: 39, etc.). God, they said, does not speak, at least not in the same way human beings do. Rather, his speech is something He brings into being in the same way he creates objects in the world. By extension,

they said, the text of the Qur'an, like everything else in the world, is an object that God has created.

In later life, al-Ma'mun was to push vigorously for general acceptance of precisely this doctrine. But this does not mean that he necessarily endorsed all the opinions of the Mu'tazilis, as some modern accounts describe him as doing. For example, he reportedly rejected the idea of free will, which was a common Mu'tazili tenet. If anything, his later opinions appear closest to those of the *kalam*-debaters known as Jahmis. Historically, the Jahmi school of thought was associated with the ideas that all human actions are determined by God; that God, far from having a body or any human attributes, is "mixed in with His creation" (van Ess, 2, 501); and (in an apparent contradiction) that everything other than God, including the Qur'an, is a created object. In the works of later chroniclers hostile to *kalam*, the term "Jahmi" is loosely used as a term of abuse for anyone who believed the Qur'an was created. In that sense, it is frequently applied to al-Ma'mun and the scholars he supported.

Also among the Barmakis' associates were scholars described as Shiites. As we have seen, members of this group believed that the only legitimate leaders of the community were certain male descendants of Ali, the Prophet's cousin and son-in law. Al-Ma'mun is unlikely to have accepted this position, which implied that his own Abbasid family had no right to rule. Nevertheless, he may have been influenced by the Shiites' doctrine of the imamate. This doctrine claimed that Ali's descendants – one in each generation – had privileged insight into religious matters. All the caliphs, whether Umayyad or Abbasid, had also believed this about themselves, so the idea itself was not new. But it never seems to have amounted to very much in practice. Among Shiites, on the other hand, the imams were treated as authoritative sources of law. That is, they were expected to be able to answer questions about doctrine, ritual,

and other legal matters. This definition of the imamate is largely the same as the one put forward later by al-Ma'mun.

One of the things *kalam*-debaters, Shiite or not, had in common was a skeptical attitude toward Hadith. Proponents of Hadith argued that it, along with the Qur'an, supplied believers with everything they needed to know about faith and practice. Therefore, speculative reasoning was unnecessary. *Kalam*-debaters naturally disagreed with this conclusion. But they did not limit themselves to advocating rational inquiry. When confronted with Hadith-reports containing positions they could not accept, they argued that the reports had been fabricated. In some cases, they invented absurd reports (such as one saying that God had created Himself from the sweat of a horse) to ridicule the proponents of Hadith. Naturally, the two parties often quarreled. *Kalam*-debaters called their opponents "weeds" and "stuffers" (apparently meaning that they had stuffed their heads with trivia); while the literal-minded Hadith scholars called the theologians unbelievers, heretics, and pagans.

We know from al-Ma'mun's later statements that he believed in the createdness of the Qur'an and took a skeptical view of Hadith (or, more precisely, of literal-minded Hadith-scholars). We also know that he was sympathetic to the political claims of the Alids (as Ali's descendants are called), at least to the extent that he considered them, along with the Abbasids, as legitimate candidates for the office of caliph. Finally, he appears to have been influenced by the teachings of the Shiites regarding the imamate. It is unlikely that he picked up these opinions from his father, who as far as we can tell was decidedly unsympathetic to all of them. It is more likely that al-Ma'mun first came into contact with *kalam*-debaters, Alid sympathizers, and Shiites as a result of his association with the Barmaki family of viziers. Significantly, all these positions represented forms of disagreement with majority opinion. They encouraged their adherents

to question received wisdom and, in some cases, to advocate political arrangements quite different from those already in place.

THE LEGACY OF IRAN

In the mid-eighth century, Iranian scholars began translating the literature of the pre-Islamic Sasanian empire into Arabic. This set of texts had been written in Pahlavi (Middle Persian), and included historical epics, books of advice for kings and courtiers, and the religious writings of the Zoroastrians and Manicheans. Although few of the translations (and even fewer of the originals) have survived, they are frequently quoted in Arabic literature, and were widely read in Abbasid times. Many of the most famous items – including the *History of the Persian Kings* and the *Kalila and Dimna*, a collection of animal fables – were available when al-Ma'mun was a child. He is also likely to have been exposed to Pahlavi books during the ten years (from 809 to 818) he spent in Marv, the capital of the Iranian province of Khurasan. According to one report, the last Persian emperor had left his library there as he fled from the Arab invasions. One of al-Ma'mun's associates, al-Attabi, is described as having transcribed or translated certain books from this library. Asked why he had done so, he replied: "Is there anything of interest anywhere else? We [the Arabs] have the words, but they [the Persians] have all the ideas" (Ibn Abi Tahir, 87).

Al-Ma'mun evidently took advantage of the translations. "Following the practice of ancient Sasanian monarchs," says one source, he "devoted himself to the reading and intense study of ancient books, and attained expertise in understanding them" (Mas'udi, ¶ 3453). Not all the ancient books were necessarily Persian, but some of them must have been. In another report, al-Ma'mun uses the Persian word *ayin*, "the right way of doing

something," which was also the title of a Sasanian work of advice dealing with court protocol, battlefield tactics, archery, polo, divination, and probably cookery (in the report, he is concerned with the correct way to serve sheep's heads).

At some point in his later career, al-Ma'mun asked his nephew's tutor to teach him the *Testament of Ardashir*, a work of advice for princes attributed to the founder of the Sasanian dynasty. Like other works of its type, the *Testament* explains how a ruler should instill respect for kingship and enforce loyalty on the part of his subjects. It emphasizes that he must not alienate intelligent men, who will express their resentment by speaking out against him. If they attack him in the name of religion, they will attract a popular following. The *Testament* therefore pleads with the ruler not to allow dissidents to become learned in religion lest they hijack it to undermine his power. This was a lesson that al-Ma'mun was to take very much to heart.

THE QUESTION OF THE LAW

A term occasionally used in reference to al-Ma'mun's education is *fiqh*, a term which in the non-technical sense means insight into the meaning of the Qur'an, and in a technical sense means the derivation of legal rulings. According to Muslim belief, the law covers all areas of human behavior and responsibility: not only civil and criminal law but also such matters as doctrine, prayer, and diet. It originates with God, who has periodically revealed parts of it to the prophets. Even so, human beings do not always know what the law is in a particular case. Although the Qur'an contains some 500 verses of a legal character, it does not provide a ruling for every contingency. Therefore, legal reasoning of some kind is still necessary.

To find answers to their questions about faith and practice, early Muslims would ask a fellow believer who had a reputation

for knowing the law and was willing to offer an opinion based on his or her sense of what was right. The practice of consulting *fuqaha'* (as possessors of *fiqh* are called) probably began when converts turned to more experienced Muslims for elementary instruction in the faith. As we have seen, Muslims were a small minority in most of the conquered territories. Of these Muslims, relatively few had reliable information about the practices of the Prophet's community. Therefore, it is not surprising to find the inhabitants of each region of the empire turning to local *fuqaha'* for guidance. In places with larger and better-informed Muslim populations, the experts often disagreed among themselves, or concurred in disagreeing with the verdicts of the *fuqaha'* from other regions. Such disagreements provoked discussions among the *fuqaha'*, and it is in the course of these discussions that Islamic law in the classical sense of the term was formed.

In retrospect, the most important point of disagreement among the *fuqaha'* was the basic question of how to derive rulings in cases not directly covered by the Qur'an. At first, there was no particular method for doing so: a *faqih* (the singular of *fuqaha'*) simply exercised his best judgment. This kind of *ad hoc* reasoning was associated with Abu Hanifa (d. 767), a jurist famous for his ingenuity in solving legal problems. But his approach was later criticized by *fuqaha'* who believed that verdicts should be based on the practice of the Prophet and the early Muslims. All legal questions, these scholars believed, could be solved by recourse to the Hadith. Although the verdicts of the two parties often coincided, their approaches were quite distinct. The difference emerges clearly from the discussion of a certain Hadith-report according to which the parties to a sale are free to cancel it until the moment they take leave of one another. After hearing this report, the notoriously clever Abu Hanifa asked what would would happen if the two parties happened to be on a boat: "How then can they part?" When he

learned of his predecessor's comment, the Hadith-scholar Ibn Hanbal (d. 855) retorted that it was wrong to make up hypothetical cases in order to test the words of the Prophet (Melchert, 10).

The split between the jurists who preferred independent reasoning and those who preferred Hadith largely corresponded to the split between the *kalam*-debaters and the literalists. Scholars who took a certain position in one field usually took a similar position in the other. For example, the independent-minded Abu Hanifa believed in the createdness of the Qur'an while the Hadith-oriented Ibn Hanbal emphatically denied it. Even so, there were many scholars who professed an eclectic mix of views, and some who shifted positions in the course of their careers from one orientation to another.

During the early Abbasid period, most of the jurists employed by the government as judges or advisers were practitioners of the Hanafi method (that is, the one associated with Abu Hanifa). Al-Ma'mun himself is said to have been trained in it. The method would have been congenial to him: it made little systematic use of Hadith, and its practitioners were sympathetic to *kalam*-debate. As caliph, nevertheless, he was markedly disrespectful of the Hanafi *fuqaha'* who served him as judges. On one occasion, he overturned a verdict against a Shiite, allegedly because of procedural irregularities on the part of the judge. On another occasion, he simply ordered a judge to issue a particular ruling and punished him when he refused. Evidently, al-Ma'mun believed that the caliph, in his capacity as imam, could overrule the verdicts of other *fuqaha'*. The belief itself was not new, but al-Ma'mun was to go further than any of his predecessors in living up to it.

So long as al-Ma'mun was studying law with his tutors, or discussing theology with *kalam*-debaters, his opinions were of importance only to him. Moreover, he probably had little sustained exposure to the representatives of hostile schools of

thought. When, however, he became caliph, his opinions became those of the head of state. Had he been less interested in intellectual matters, he might have kept his opinions to himself. Instead, however, he proclaimed them to be the only basis of right belief. By the time of his accession, he had adopted a view that antagonized even the Hanafi jurists: namely, that the caliph was to have the last word in matters of faith. His preference for independent reasoning may have been a result of his education, his personal inclinations, or both. In any event, it was to place him in a very small minority, especially when he found himself in a position to impose his views on the entire Muslim community.

AN INSCRUTABLE PERSONALITY?

Because al-Ma'mun was such a controversial figure, many of the reports of his early years are unreliable. Even so, by comparing these reports with more reliable ones from his later career, we can identify some recurrent elements in his personality (or at least in the personality that the sources chose to construct). Al-Ma'mun comes off as a quick learner who had gained a real mastery of all the best that had been thought and said in the world, at least by the standards of the Abbasid court. His training in Qur'an and Hadith equipped him to engage in the religious debates of his day, and his exposure to *kalam* and *fiqh* contributed to his penchant for independent reasoning.

At the same time, it was unclear whether he would have any role to play in the future government of the empire. His half-brother al-Amin had been named heir apparent, and his own tardy appointment as second heir seems to have come as an afterthought. Given the uncertainty of his position, it may well be, as some modern historians have suggested, that he allowed himself to be led by ambitious advisers who had a more secure

grasp on practical politics than he did. It is equally possible, as other scholars believe, that he learned to keep his own counsel and manipulate others to get his way. If it is any consolation to modern readers, the Arabic chroniclers themselves were unable to decide which description is the more accurate.

THE FIRST SUCCESSION CRISIS

According to legend, the caliph al-Rashid agonized over the question of whom to appoint as his heir apparent. In a tenth-century chronicle, he is imaginatively made to say that he prefers al-Ma'mun, "whose judgment is sound and whose conduct is pleasing." Unfortunately, the Abbasid nobility favors the "frivolous, headstrong, and wasteful" al-Amin: "If I appoint al-Ma'mun, I will anger the family; but if I appoint al-Amin, I may be doing my subjects a great disservice." He then recalls the botched successions of the first decades of Islam, which brought civil war and the usurpation of the caliphate by the Umayyads. Taking the fratricidal squabbling of the early Muslims as a precedent to be avoided, he reluctantly agrees to appoint the candidate his relatives prefer. But he also decides to hedge his bets by naming al-Ma'mun as heir to the throne after al-Amin (Mas'udi, ¶2525).

In reality, al-Rashid designated al-Amin as heir apparent in 791, and did not give al-Ma'mun any role to play in the succession until 798 or 799. Therefore, this anecdote cannot be authentic. But its purpose is not to report historical fact. Rather, it is an attempt to justify al-Ma'mun's later rebellion against his brother. In 809, al-Rashid died and was duly succeeded by al-Amin. Al-Ma'mun, who had been appointed governor of Khurasan, recruited an army and marched against the

capital. In the ensuing civil war, al-Amin was killed and al-Ma'mun assumed the office of caliph. These events naturally called the latter's legitimacy into question. How could al-Ma'mun depose, kill, and replace a duly appointed caliph to whom the Muslims had sworn binding oaths of loyalty?

The answer, according to the anecdote, is that al-Ma'mun should have been caliph from the beginning but his father chose al-Amin instead. How could al-Rashid, who claimed to be guided by God, make such a grave mistake? The anecdote does not answer this question directly. But it does point out that even the pious early caliphs had made bad decisions in similar circumstances. Those bad decisions had resulted in the enthronement of a dynasty of usurpers: rulers who claimed to be caliphs but were in fact illegitimate. Fortunately, the Umayyad usurpers had eventually been overthrown. This retelling of Islamic history makes sense of al-Ma'mun's conduct: just as the Abbasids had been justified in rising against the Umayyads, so too was al-Ma'mun justified in overthrowing al-Amin.

Like the anecdote about al-Rashid, many of the accounts of the conflict between al-Amin and al-Ma'mun are products of historical revisionism. As a result, it is impossible to know exactly how al-Ma'mun justified deposing his half-brother. However, evidence from coins as well as written sources suggests that he did so by presenting himself as an imam – that is, as the person responsible for ensuring just rule according to God's law. In a letter addressed to the army after his brother had been deposed, al-Ma'mun explains what seemed in retrospect to have been a predestined victory:

> It is necessary to have a leader to keep religion and justice on the right road, protect the rights of all Muslims, and lead campaigns against pagan enemies. It is also necessary that believers choose one of the heirs of the Prophet as their leader. God, in His compassion and wisdom … has spared human beings

> the trouble of having to go in search of their leaders. He has designated them Himself and honored them by making them descendants of the Prophet …Thus, the imams have followed in unbroken succession, passing their hereditary privilege from father to son until it reached the Commander of the Believers [al-Ma'mun] at the time of his residence in Khurasan, the seat of his call to allegiance. There, surrounded by his partisans, he was examined by the notables, who concluded that their affairs would prosper under his leadership, and that his case against his enemy [al-Amin] was irrefutable (Arazi and El'ad, 2, 56).

Normally, if one accepted the legitimacy of the Abbasid dynasty, one was bound to assert that the caliph and the imam were the same person. To justify overthrowing al-Amin, al-Ma'mun had to adopt the view that the imam might be someone other than the person generally recognized as caliph. The Shiites, who believed that the only true imams were the descendants of Ali, already held such a view. The Abbasid revolutionaries, similarly, had argued that the descendants of al-Abbas, not the Umayyad caliphs, were the true imams. A less partisan view, and the one adopted by al-Ma'mun, was that the legitimate imam was the most learned and pious member of the Prophet's family at any given time. The imam might be an Alid or an Abbasid; all that mattered was personal merit and the capacity to deliver justice.

Originally adopted as war propaganda, al-Ma'mun's theory of the imamate took on a life of its own. It made it possible for him to take the radical step of appointing an Alid heir apparent (as described in Chapter 4). It also created the framework within which he could see himself as responsible for shaping the faith of the Muslim community. Like many other Muslims, he "credited the imam with a divine inspiration that made him the ultimate arbiter of right and wrong" (Crone, *God's Rule*, pp. 130–31). Unlike previous caliphs, however, he actually behaved as if this were true. As far as we can tell, this ambitious

claim to authority first emerged during the struggle between himself and al-Amin. The story of the war between the brothers is therefore also the story of how al-Ma'mun came to see himself as the living source of right guidance for the Muslim community.

THE SUCCESSION TO AL-RASHID

In choosing two successive heirs, al-Rashid was following Abbasid family tradition. The first Abbasid caliph, al-Saffah, had designated one of his brothers, al-Mansur, as his first successor and one of his nephews, Isa ibn Musa, as his second. When al-Saffah died, al-Mansur had forced Isa ibn Musa to abdicate in favor of his own son. He had also crushed a rebellion led by one of his uncles who claimed the throne by virtue of his seniority. When the next caliph, al-Mahdi, had acceded to the throne, he had also named a first and second heir apparent. Upon his death, the first heir, al-Hadi, had tried to exclude the second, al-Rashid, but had died before he could carry out his plan. The Abbasid practice of appointing two heirs apparent thus cannot be said to have worked flawlessly. However, there was no obvious alternative. In contemporary Western Europe, the king's oldest legitimate son was his legal heir. In Muslim states, no such rule existed; any male relative might claim the throne. To exert some measure of control over what might well become a free-for-all, the Abbasid caliphs named their successors, extracted solemn oaths of loyalty from relatives and supporters, and hoped for the best.

Al-Rashid, who had narrowly escaped being deposed by his brother al-Hadi, went further than any of his predecessors in trying to ensure that no conflict would erupt between his heirs. In 802, he wrote up documents to be signed by his sons in which each committed himself to respect the succession arrangement. In the form that has come down to us today, the

documents say that al-Amin was to succeed his father as caliph. If he died before ascending the throne, al-Ma'mun was to replace him as heir apparent. If al-Amin were to die while in office, al-Ma'mun would immediately become caliph.

The documents also say that al-Ma'mun, in addition to being his brother's heir, was to govern Khurasan (in effect, the eastern half of the empire). In Sasanian times, the heir to the throne had customarily been appointed governor of that province, but no Abbasid prince had ever formally held the title. Khurasan was where the Abbasid revolution had gotten its start, and it was the ancestral territory of the *ahl al-dawla* or "People of the Revolution," the families who had lent their support to the Abbasid cause. As late as al-Rashid's reign, the caliphs were still recruiting soldiers there. According to the succession documents, al-Ma'mun was to have full authority to rule the province without interference by his brother.

This last clause is unusual and modern scholars have offered different explanations for it. One historian has suggested that al-Rashid predicted that his sons would come into conflict and therefore tried to arrange matters so that al-Ma'mun would win. Another historian considers this part of the document to be a forgery. The best evidence for this argument is that the restrictions placed on al-Amin's power seem to have been written to criminalize his behavior in retrospect. That is, his later conduct so specifically violates certain terms of the agreement that the relevant sections must have been composed later and inserted into the record. If this interpretation is correct, al-Rashid did not divide the empire, as modern works sometimes describe him as having done. Rather, he intended al-Amin to have full and undivided authority as caliph.

Although the state of the sources makes it impossible to know what really happened, it appears that al-Rashid put al-Ma'mun in charge of Khurasan as a means of assuring that he could defend his rights against al-Amin. If this is so, the

anecdotes about al-Rashid's preference for al-Ma'mun may have a basis in fact. But it is also clear that the arrangements for the succession left al-Ma'mun in an unusual position. Unlike al-Amin, who enjoyed the backing of the Abbasid family and the army, al-Ma'mun does not seem to have had any natural base of support. Yet he was to have control over half the empire, including the traditional recruiting grounds of the Abbasid army. Perhaps al-Rashid's succession arrangements were intended to create a balance of power between his heirs. In the event, they laid the groundwork for a second Khurasan-based revolution.

AL-MA'MUN LEFT IN THE LURCH

Al-Rashid announced the succession arrangement while in Mecca during the pilgrimage of 802. Shortly after returning to Iraq, he abruptly ordered the arrest of the Barmaki viziers and the execution of al-Ma'mun's tutor Ja'far. Some modern historians have suggested that al-Rashid deposed the Barmakis to ensure that they would not interfere with the arrangements he had made for the succession. If this was indeed his aim, it was to be thwarted by one of Ja'far's protégés, an Iranian named al-Fadl ibn Sahl. During the days of the Barmaki ascendancy, al-Fadl had made a name for himself as a translator from Persian to Arabic. To further his career, he converted from Zoroastrianism to Islam at the hands of al-Ma'mun. After the fall of the Barmakis, al-Fadl remained in al-Ma'mun's service and soon became his most trusted adviser.

In 805, a rebellion broke out in Khurasan, apparently because the governor, Ali ibn Isa ibn Mahan, was taxing the province into the ground. The rebel leader, Rafi' ibn al-Layth, was particularly threatening because he had won the loyalty of many traditional supporters of the Abbasid regime. Al-Rashid

eventually decided that the uprising warranted his personal attention. In 808, he and al-Ma'mun set out for the east. The journey meant crossing hundreds of miles of desert, mountains, and steppe, and al-Rashid, who was ill when the trip began, died during a stopover in the town of Tus (in the northeast of what is today Iran). Al-Ma'mun, who had gone on ahead to deal with the rebellion, returned to the provincial capital of Marv (today Mary, the capital city of Turkmenistan) to assume his duties as governor.

Before his death, al-Rashid had ordered the troops who were with him to remain in Khurasan in order to assist al-Ma'mun. These troops, like most of the field army at the time, were descendants of the Khurasanis who had brought the Abbasid dynasty to power sixty years before. That first generation of fighters, known as the People of the Revolution (*ahl al-dawla*), had been rewarded with plots of land in the new capital of Baghdad, where they had settled with their wives and children. Their descendants, who were called the Sons of the Revolution (*abna' al-dawla*), had come to think of Baghdad as home and were averse to long campaigning in the provinces. Soon after al-Rashid's death, many of the Sons who had accompanied him to Khurasan announced that they were returning home to their families.

Without an army, al-Ma'mun could not defeat the rebellion that had brought him to Khurasan in the first place. Nor could he maintain his authority in the province, many parts of which were only nominally loyal to the central government. Meanwhile, the Iranian and Turkish kingdoms on his borders were throwing off their allegiance, withholding their tribute, and preparing to raid Muslim territories. "I can think of nothing to do," he reportedly said, "except give up my position and seek refuge with Khaqan, the king of the Turks" (Tabari, 3, 815). The exclamation may not be authentic, but it does reflect al-Ma'mun's predicament accurately enough. If he was to

maintain his position, he was going to need help from people other than the Sons of the Revolution.

A NEW FORCE IN KHURASAN

At this juncture, his adviser al-Fadl ibn Sahl is supposed to have saved the day by suggesting a new policy that turned the tide of events. The first part of the policy involved the acquisition of religious legitimacy:

> You have read the Qur'an, heard Hadith, and learned *fiqh* [legal reasoning]. What you should do is call in the jurists and encourage them to do the right thing by acting in accord with the Sunna [that is, the practice of the Prophet and the early Muslims], and you should hold audiences sitting on a cloth of felt and satisfy anyone who complains of injustice (Tabari, 3, 774).

By presiding over the grievance court in person, al-Ma'mun was to gain a reputation for just rule. The cloth of felt was intended to cast a glow of ascetic piety over the proceedings. In this connection, we are told that al-Ma'mun kept his entourage in shabby condition. This may have been a matter of necessity: he is said to have left his money in Baghdad. But there are also indications that the appearance of pious austerity was carefully engineered by al-Fadl. In one anecdote, he rebukes al-Ma'mun for drinking wine, playing chess, and enjoying the company of a slave woman. "We've been claiming that you spend your time praying and fasting, and here you are indulging yourself . . . You'll never wrest the caliphate from your brother if you carry on like this!" (Sabi', *Hafawat*, 251). This anecdote is one of many to depict al-Fadl as plotting from the start to overthrow al-Amin.

In addition to supporting religious scholars, dispensing justice, and making a display of piety, al-Ma'mun and al-Fadl did several other things to strengthen their position in Khurasan.

First, they reduced the tax assessment of the entire province by a fourth. This move was particularly welcome, as the previous governor had been notorious for his rapacious tax gathering. Then, they made overtures to the petty kings of the region. Some of these kings were nominally subject to the Abbasids, while others had maintained their independence by playing the Muslims off against the Turks. Al-Ma'mun sent letters to the subject kings affirming their authority in their countries. With the others he exchanged gifts and embassies and was rewarded with promises of loyalty. After decades spent resisting the expansion of the caliphate, the kings welcomed the appearance of al-Ma'mun, whom they thought of as "an Islamic leader whom they could manipulate in their own interests" (El-Hibri, 29).

The next step was to create an army. Al-Fadl's first impulse was to recruit those Sons of the Revolution who were based in Khurasan. At first, they reportedly refused to betray a caliph to whom they had sworn an oath of loyalty. Eventually, however, many did agree to throw in their lot with al-Ma'mun. The Abbasid regime had not treated the province kindly, and those Sons who had remained in Khurasan may have felt that their fellows in Baghdad had forfeited any claim to their allegiance. Still, it cannot have been a simple matter for the Sons to take sides against their relatives in Baghdad. Many seem to have avoided choosing sides until the last possible moment.

Having achieved only limited success with the Sons, al-Fadl then turned to the local kings and princes. Here his arguments proved more successful. The petty rulers of the east seem to have been eager to exchange their tenuously maintained independence for the chance to participate in a movement that seemed poised to overthrow the Baghdad regime. In any case, it was they who filled the ranks of al-Ma'mun's army by supplying their own subjects to serve as soldiers. These new recruits were "unassimilated, half-converted, or unconverted Iranians" and Turks

(Crone, "'Abbasid Abna'," 14); observers in Baghdad were later to describe them as "barbarians" (Ibn Abi Tahir, 16). By bringing such people into the army, al-Ma'mun and al-Fadl were doing something similar to what the Abbasid revolutionaries had done sixty years before: that is, they were accepting help from anyone who was willing to offer it, regardless of ethnic origin.

Al-Fadl's policy of piety, diplomacy, and recruitment paid off. The locals began referring to al-Ma'mun as "son of our sister," a reference to his mother's Khurasani origins. They also called him "the nephew of the Prophet," a sign that his claims to religious leadership were being taken seriously. Rafi' ibn al-Layth, the rebel leader whom he had been sent to subdue, was reportedly so impressed with his good conduct that he agreed to surrender. (More to the point, perhaps, he realized that he and al-Ma'mun were now on the same side.) The brilliant field tactician Tahir, a Khurasani Son of the Revolution who had briefly joined forces with the rebels, accepted a commission as the head of al-Ma'mun's guards. In a few short years, the new governor of Khurasan had gained effective control of his province. But he did not do so in the name of the central authority in Baghdad. Rather, he did so in the name of Islam and of local Khurasani interests.

THE CIVIL WAR

In Baghdad, al-Ma'mun's growing power was viewed with dismay. Al-Amin may have been aware of reports that his brother's right-hand man had already begun canvassing the Khurasanis to ensure their support should his master decide to break with Baghdad. Prompted by his advisers, al-Amin tested the waters by asking for the income from certain estates in Khurasan and the right to appoint governors and intelligence officers in those areas. According to the succession agreement as we have it, such appointments were a violation of al-Ma'mun's rights as

governor. But if the text we have is a forgery, then al-Amin was merely exercising his rights as caliph. Either way, al-Ma'mun's response was provocative: he refused his brother's requests and sealed the border. Al-Amin then retaliated by naming his own infant son as heir apparent. This was a clear violation of the succession agreement and was widely condemned as such. Even so, it came only as a response to perceived violations on the part of al-Ma'mun.

Al-Ma'mun responded to the announcement by escalating his bid for religious authority. In an inspired moment, he proclaimed himself imam, the implication being that he was a rightly guided leader while his brother was not. At first, the implication was only an implication: since he was not calling himself a caliph, he could not be accused of challenging his brother directly or of dividing the community of believers. Indeed, his supporters are quoted as offering disingenuous protests when observers expressed surprise at the new title. "Perhaps he only means that he's the prayer leader of mosque or tribe," one partisan reportedly said, playing on another common meaning of the term imam (Tabari, 3, 779). But after his brother formalized the new succession arrangement, al-Ma'mun upped the stakes again by calling himself *imam al-huda*, "the imam of right guidance." Now there could be no question that he was offering an Islamic alternative to the central authority in Baghdad. Following the precedent of the original Abbasid revolutionaries, he was issuing a call to allegiance based on the idea that his movement aimed to restore just government under the leadership of a learned and pious kinsman of the Prophet.

Studiously ignoring the ideological challenge to his own authority, al-Amin decided to treat al-Ma'mun as a rebellious subordinate. He reappointed Ali ibn Isa, the former governor of Khurasan, and sent him to reclaim the province. In one respect, Ali was a poor choice: he was famous for his brutal

treatment of the locals during his term, and his reappointment could only rally the opposition. Even so, he was being placed in command of an army numbering in the tens of thousands while Tahir, who commanded al-Ma'mun's border force, reportedly had less than four thousand men under arms. And, apart from questions of numerical superiority, the Baghdad regime was confident that the Sons of the Revolution could defeat any collection of Turks and Iranians from the frontier.

The two armies met near Rayy (modern Tehran), where Tahir, against all expectations, won the day with a bold charge against the center of Ali's forces. In hindsight, it seemed that the Sons who had settled in Baghdad had become accustomed to urban warfare and had lost the ability to fight in the field. As one ninth-century military analyst put it: "In this regard [i.e., fighting on horseback with lances] the Sons cannot match the Khurasanis and the Turks. The Sons are used to fighting with swords in trenches and alleys. The Khurasanis and the Turks, on the other hand, are horsemen, and it is with cavalry tactics that battles are won" (Jahiz, *Rasa'il*, 1, 53). The urbanized Sons may also have been intimidated by the sight of their wild and woolly cousins from the frontier. One Khurasani is quoted as describing his people as follows:

> When you see us approach on horseback with our retinue and our special banners, you realize that we were created for one purpose: to overthrow dynasties, to obey the caliphs, and to support authority … We have huge terrifying drums, and banners, and horse-armor, and bells, and mantles and long gowns of felt, and curved scabbards, and tall caps, and fine horses, and truncheons and battle-axes and daggers. We sit smartly on horseback, and our shouting is enough to cause a miscarriage … (Jahiz, *Rasa'il,* 1, 19–20).

When the news of the victory, accompanied by the enemy commander's severed head, reached al-Ma'mun in Marv, he

proclaimed himself caliph. In many of the provinces, including the symbolically important territories of Mecca and Medina, local governors ratified the regime change by substituting al-Ma'mun's name for al-Amin's in the Friday sermon. To publicize and justify his victory, al-Ma'mun issued new coins bearing the following verse from the Qur'an: "The matter belongs to God first and last; and on that day the believers will rejoice in the victory granted by God" (30: 3–5). This verse was normally understood to have predicted a Byzantine victory over the Sasanians, or a Muslim victory over the Byzantines. On al-Ma'mun's new coins, it announced that his triumph had been the result of divine intervention on behalf of the entire community of believers.

THE SIEGE OF BAGHDAD

In a series of hard-fought battles near Hamadhan (some 250 miles, or 400 km, east of Baghdad), the Sons of the Revolution were again routed by Tahir's Iranians and Turks. In desperation, al-Amin sought to recruit new troops, going so far as to seek help from the traditionally hostile province of Syria. Resentful of the largesse showered on the new recruits, the Baghdad soldiery fought only half-heartedly for al-Amin. At one point, he was deposed and imprisoned by his own commanders, only to be released when the mutineers fell to fighting among themselves. Tahir, meanwhile, had resumed his march toward the capital. He was joined there by Harthama, one of the few members of the old guard who had thrown his lot in with al-Ma'mun. Harthama was willing to wait for his former comrades to realize the weakness of their position. But the Baghdadis were having none of it: when Harthama left his camp to talk peace, he was greeted with curses. Realizing that the capital would not surrender without a fight, Tahir determined to take it by force.

The symbolic center of Baghdad and of the caliphate was the walled Round City. To the north, west, and south was the city proper, consisting of residential neighborhoods and markets built along irrigation canals. To the east was the Tigris River, with further urban construction on the opposite bank. Tahir began his assault by setting up catapults to bombard the neighborhoods on the west bank of the Tigris. As each neighborhood surrendered, his troops would fortify it with walls and ditches and then begin bombarding the next one. When the assault approached the walls of the Round City, al-Amin responded by torching the neighborhoods that stood between him and the attackers. "The catapults pounded away on both sides … and fire and destruction ravaged Baghdad, Karkh, and other places on both sides of the river," says one chronicler. "The glories of the city fell into ruin … People fled from place to place, and fear was everywhere … The mosques were left empty, and prayer stopped" (Mas'udi, ¶2660–61).

Although many of the caliphal commanders had withdrawn from the fighting in response to Tahir's threats to confiscate their estates, the city was by no means defenseless. The chroniclers are particularly taken with the valor of the "street vendors, naked ones, people from the prisons, riffraff, rabble, cutpurses, and people of the market" (Tabari, 3, 873; tr. Fishbein) who took up arms to defend their neighborhoods. Called "naked" because they dressed in rags and fought with homemade weapons, they captured the imagination of observers by defeating the well-armed Khurasanis in several pitched battles. In the end, Tahir was able to crush the resistance only by prodding his reluctant colleague Harthama to take a more active role in the fighting. In the last stages of the assault, the besiegers cut the bridges that spanned the Tigris, thereby trapping the defenders in their positions. They also stopped river traffic into the city, effectively depriving the Baghdadis of food and supplies. Even so, Tahir's

troops had to fight their way to the very gates of the Round City.

Given the symbolic importance of the capital, it is difficult at first to account for the savagery of Tahir's assault. According to his proclamations, the Baghdadis deserved to suffer because they had proclaimed their allegiance to a false imam. More to the point, his troops had completed a long march through hostile territory and suffered heavy losses in their battles with the Sons. By the time they reached the capital, they were eager for plunder and revenge. The new recruits, many of whom were probably pagans or nominal converts, doubtless thought of the capital as enemy territory and treated it accordingly. Finally, much of the destruction was caused by the "naked ones" who figure so prominently in the accounts of the siege. Besides attacking the besiegers, the popular militias also took the opportunity to rob and pillage, and their depredations are cited as the reason for the decision taken by the merchants of Karkh (the commercial district south of the Round City) to throw their lot in with Tahir.

THE DEATH OF AL-AMIN AND THE CRISIS OF LEGITIMACY

After fourteen months under siege, al-Amin, his mother Zubayda, and what was left of their entourage took refuge in the Round City. Properly supplied and defended, the walled and gated compound could have withstood a major assault. But al-Amin had neither troops nor food. Desperate, he agreed to surrender to Harthama, who as a veteran Abbasid general was "like a father" (Tabari, 3, 480) to him. On the night of September 25, 813, he left the Round City and rode out to the bank of the Tigris, where Harthama's boat stood waiting. No sooner had he boarded it than the boat began to sink: Tahir, suspecting treachery, had sent men into the water to drill through the hull. Thrown

overboard, al-Amin came ashore south of the Round City and was taken captive. After a night in confinement, he was beheaded.

Again, a severed head and a letter of congratulations were dispatched to al-Ma'mun in Marv. This time, however, the occasion was a somber one. The sources offer contradictory accounts of al-Ma'mun's response to his brother's death. In one account, he bursts into tears, disclaims all responsibility, and curses Tahir. At first glance, this account seems plausible because it fits in with al-Ma'mun's seeming non-involvement in the conduct of the war. On closer examination, however, the idea that Tahir went ahead and killed al-Amin without permission is unlikely. It would not have been difficult to keep the deposed caliph under arrest, or even send him to Marv (as was done with his children). Instead, he was killed shortly after being identified. On this basis, some modern historians have argued that al-Ma'mun must have ordered his murder. Some ninth-century observers seem to have reached the same conclusion. "What's done is done," they depict Ma'mun as telling al-Fadl, "so start thinking about how we're going to explain it" (Tabari, 3, 950).

The slaying of al-Amin was a profound shock to those who believed in the legitimacy of the Abbasids. He had been appointed by due process of law and his subjects had given binding oaths of loyalty to him, either directly or through their governors. Now the Muslim community was being asked to pay homage to his killer. One of al-Ma'mun's partisans argued that al-Amin's violation of the Mecca agreements made the former oaths of loyalty null and void: "One cannot obey someone who disobeys God" (Tabari, 3, 951). Another representative explained that al-Ma'mun had "spared no effort to achieve peace and reconciliation" before finally "reaching a point where, for the sake of the faith, he could make no more concessions; and thus took upon himself to assume the destiny ordained for him by God" (Arazi and El'ad, 2, 57). But many Muslims, especially

those who had suffered during the civil war, were not persuaded. During the siege of Baghdad, one poet declared:

> Let me live, and I won't give a damn
> So long as I'm here, which one is imam! (Tabari, 3, 890)

As if sensing that he would not be welcome in the capital, al-Ma'mun continued running the government (or what was left of it) from Marv, the administrative center of Khurasan, where he was to remain for the next five years.

Eventually, the chroniclers were to paper over the crisis of legitimacy by arguing that al-Amin had lost his office and his life because of his own bad conduct. The sources are full of stories depicting him as a glutton, a drunkard, and a pederast. Allegedly, he had spent vast sums on pleasure boats in the shape of marine animals; set fire to piles of tax records laboriously assembled for his inspection; and spent the siege of Baghdad drinking, fishing, and listening to music. Although some of these stories may have a basis in fact, they clearly represent efforts to justify his assassination. At the same time, the depiction of any caliph as a drunken despot could not be carried too far without making a mockery of the caliphate itself. As if to counterbalance the scurrilous gossip purveyed at al-Amin's expense, the sources preserve what is clearly an undercurrent of sympathy for him. In the reports of his last days, we are given a glimpse of the personality behind the caricature, as when he is shown weeping and embracing his children before riding out to meet Harthama on the Tigris. By lending dignity to his final hours, these reports reflect a sense that the murder of a caliph, even one as frivolous as al-Amin, is a desecration of the office.

If chronicles written centuries after the civil war can still betray uneasiness about the death of al-Amin, the discomfort experienced in 813 must have been acute. During the ensuing five years, Iraq lapsed into anarchy and Shiite uprisings broke out in Kufa, Mecca, Medina, and the Yemen. Having promised

a restoration of just government, al-Ma'mun was now presiding over the dissolution of the empire. During this period, the tendency to provincial independence that was to characterize the later history of the Abbasid caliphate began to make itself felt. Given the heavy-handed rapacity of imperial government, local autonomy was doubtless a good thing. However, Muslims had not yet accustomed themselves to the withering away of the caliphate, and most continued to think of al-Ma'mun as the only legitimate imam and the only source of effective authority. Certainly, he thought of himself that way. But he was now cut off from his Abbasid relatives, the only people who shared his caliphal lineage. He was, in other words, a ruler without a dynasty. This situation does not seem to have troubled him unduly at first. Eventually, however, he resolved to address it, proposing a solution entirely unprecedented in the annals of the Abbasid caliphate: the nomination of an heir apparent from the rival family of Ali.

4

THE SECOND SUCCESSION CRISIS

Al-Ma'mun had ridden to power on the coat-tails of a dubiously Muslim frontier army assembled by al-Fadl, who according to the Iraqis was nothing better than a Zoroastrian. He had deposed and killed his duly appointed predecessor, broken the power of the Sons of the Revolution, and inflicted grievous suffering on the capital. To make matters worse, he had then decided to remain out of sight in Marv. Despite its symbolic importance – it was there that the Abbasids had first unfurled the black banners of the 750 revolution – the Khurasani capital was too far to the northeast and too geographically isolated to serve as the capital of an empire that extended from Libya in the west to Yemen in the south.

In the absence of any credible central government, the provinces of the empire began to fall away. The rebellion that made the greatest impression on contemporaries was the uprising of Abu al-Saraya in Kufa. Abu al-Saraya was a disaffected Abbasid commander who had sworn allegiance to an Alid notable whom he declared to be *al-rida min al Muhammad*, "a member of the Prophet's family acceptable to all." Inspired by the success of Abu al-Saraya, other Alids seized control of Mecca, Medina, and the Yemen. In Mecca, one had declared himself "commander of the faithful," a title reserved for the caliph.

From al-Ma'mun's point of view, the uprisings in Iraq and Arabia were particularly threatening because they made their appeal using the same language that had brought his own family to power. The call for *al-rida* had been the slogan of the Abbasid revolution of 750. At the time, *al-rida* was understood to mean a member of the Prophet's family who would be chosen by consensus once the Umayyads had been overthrown. In the event, an Abbasid and not an Alid had become caliph in 750. But there was no particular reason – other than the contingent fact that the Abbasids had an army and the Alids did not – why that should have been so. It is true that Abbasid partisans worked hard to invent reasons, but these do not seem to have been persuasive in the community at large. Now, the provinces were reviving the call for *al-rida*, whom they declared to be an Alid.

In March of 817, with the empire falling to pieces around him, al-Ma'mun made the stunning decision to nominate an Alid as his heir apparent. In his announcement of the designation, the caliph claims to have surveyed all the living kinsmen of the Prophet and found no one more pious and learned in God's law than one Ali ibn Musa, a senior member of the Alid family. He has therefore decided to name him as his successor. As it happens, Ali ibn Musa was the brother of the Alid who had rebelled against al-Ma'mun in the Yemen and the nephew of the one who had proclaimed himself caliph in Mecca. The caliph's announcement makes no mention of these awkward connections. But the echo of Abu al-Saraya's uprising comes through in the heir apparent's new title: *al-Rida*, short for *al-rida min al Muhammad*.

In preparation for this announcement, al-Rida (as it will now be convenient to call him) had been escorted from Medina to Marv and provided with his own residence and personal guard. The caliph's generals and courtiers had been given a week to dispose of their traditional black costumes and replace them with new ones made of green. Green was a neutral color, as

opposed to the Abbasid black and the Alid white; it may also have been a millennial reference to paradise. On the day of the accession ceremony, the assembled dignitaries swore oaths of allegiance to the new heir apparent. Sacks of coins were handed out to those in attendance, and orators and poets praised the caliph and his appointee. Al-Rida was engaged to one of al-Ma'mun's daughters and his son was engaged to another. Coins were struck in the name of al-Rida and al-Ma'mun, and letters were sent to the provinces announcing the designation of a new heir apparent.

Not everyone was pleased. Al-Rida himself had reportedly been unwilling to accept the appointment. Asked to speak during the ceremony, he gave a speech that was short to the point of rudeness: "We have claims on you by virtue of our kinship to the Prophet, just as you have claims on us. Do your part, and we will do ours" (Isfahani, 564). Al-Ma'mun's vizier al-Fadl had misgivings about the nomination, so much so that he asked for, and got, a letter from al-Ma'mun saying that if he (al-Fadl) decided to resign, he would be given property and a guarantee of safe conduct. Several generals reportedly refused to swear allegiance to al-Rida, and the governor of Basra deliberately omitted his name from the Friday sermon. In Khurasan, the Sons of the Revolution denounced the appointment as a plot to restore the Sasanian empire. In Baghdad, the Abbasids assembled to depose al-Ma'mun and elect one of themselves as caliph.

A year later, al-Rida was dead. Al-Ma'mun had decided to return to the former capital of Baghdad and had brought the heir apparent with him on the journey. During a stopover near the town of Tus, al-Rida had fallen ill and died, ostensibly from natural causes. Al-Ma'mun is said to have marched bareheaded in the funeral procession, crying out: "Whom will I turn to now?" (Ya'qubi, 2, 550–51). For three days, he sat beside the grave eating only bread and salt. But some observers thought

the display of grief was only for show. The caliph, they claimed, had poisoned his heir apparent in order to pave the way for a reconciliation with the Abbasids in Baghdad. "I do not know," one poet exclaimed, "whether it was natural death or poisoning; but either way, it was certainly convenient" (Isfahani, 571).

For contemporary observers, al-Ma'mun's nomination of al-Rida was not a startling concession by the Sunnis to the Shiites, as modern-day Muslims sometimes imagine. In the ninth century, Sunnism and Shiism were still works in progress; and al-Ma'mun was anything but a Sunni caliph. But it was a startling concession from one family to another. Never before had a caliph freely transferred, or promised to transfer, the throne to one of his rivals. The Abbasids had spent the previous seventy years arguing that their claim was superior to that of their cousins the Alids. At a stroke, al-Ma'mun tossed those arguments out the window. Meanwhile, the Alids had spent almost two centuries arguing that they had a better right to rule than the Umayyads or the Abbasids. But then a leading member of the family agreed to play an official role in a government headed by an Abbasid caliph. No less shocking for many observers was al-Rida's subsequent death under suspicious circumstances, an event that still occupies an important place in the popular memory of modern-day Shiites.

AL-RIDA'S CLAIM TO THE IMAMATE

Al-Ma'mun's presumed successor was not just any Alid. Although the announcement of his appointment makes no mention of the fact, al-Rida was believed by many Shiites to be the imam of the age. As far as we can tell, he held a position of authority in actual fact. This does not mean all Shiites recognized him as imam: many did not. Nor does it mean that he was planning to break with the government. On the contrary: he

had done nothing to help his rebellious relatives, perhaps because, as a self-proclaimed imam, he did not acknowledge their right to lead. Rather, he was content to remain in Medina, answer questions about Islamic faith and practice, and collect donations from his followers. After his death, he was to be proclaimed an imam by the largest of the Shiite sects. During his lifetime, however, his standing was still undecided.

Nearly all Shiites believed that the leader of the Islamic community should be a direct descendant of the Prophet, specifically the children of his daughter Fatima and her husband, the Prophet's cousin Ali ibn Abi Talib. (Some Shiites believed that Ali's child by another wife was also qualified to lead.) But Shiites did not agree on which Alid was the imam at any given time. Some said that it was the most pious and learned member of the family, while others said that it was any meritorious Alid who took up arms against the government. Many Shiites eventually agreed on a single line of imams descended from Ali's son al-Husayn, who had been killed by the Umayyads in 680. Each imam of the line had possessed a superior understanding of belief, ritual, and law, and had passed this understanding on to one of his sons. In an ideal world, all of them would have been caliphs. Similarly, the current imam, whoever he happened to be, should be caliph. Given, however, the Abbasids' unwillingness to let this happen, the imam was not expected to endanger himself by rising against the government. Rather, he was to expound and exemplify the law for his followers and intercede in their favor on the Day of Judgment.

Al-Rida was descended from the Husayni line of imams recognized by many Shiites. But not all Shiites acknowledged him as the imam of the age. Those most inclined to give him a chance were the ones who had recognized his father as imam. His father had been a quietist, and al-Rida did not have to take up arms to establish his qualifications. Rather, he had to prove his superior knowledge of the religious law, which he could do by

answering any question visitors cared to pose. Some of his visitors reportedly asked about legal matters such as the marriage of orphans, the ban on gold and silver vessels, and the permissibility of drinking beer. Others posed hostile questions about vexed points of doctrine, such as God's culpability for the death of innocent children in Noah's flood. Only one man is said to have been unsophisticated enough to ask him outright whether he was really the imam: a question, which, if answered in the affirmative, amounted to rebellion against the government. At one point, al-Rida rebuked a group of visitors who had posed questions intended to trip him up: "[You] only want to test me and find a path to doubt and misbelief … Don't you see that I answer your questions even though I could remain silent instead?" (Kashshi, 603).

Al-Rida's efforts to make his case were only partially successful. The most troublesome skeptics were those who believed that the line of imams had already come to an end. His father, they said, had been the last imam, and he had not died but rather gone into hiding. (According to the biographers, the skeptics made this argument in order to retain control of the father's property, which they could only do by asserting that he was still alive.) To make matters worse, al-Rida was for many years unable to produce a male heir. When he finally did, he was accused of adopting a child for that purpose. His status was still in dispute when, in 817, he was unexpectedly summoned to Marv to assume the post of heir apparent to al-Ma'mun.

THE END OF THE WORLD?

At the time of his designation, Ali al-Rida was some twenty years older than al-Ma'mun, and therefore unlikely ever to succeed as caliph. Why then was he appointed? There are political explanations, of course, and they will be examined in a

moment. First, though, it is worth looking at an explanation of a different kind: namely, that al-Ma'mun expected the world to end in the very near future. In a letter he is said to have written to his Abbasid relatives after al-Rida's death, he explains that he had read a prediction to the effect that the seventh Abbasid caliph (that is, himself) would be the last of the line. Believing that the collapse of the dynasty was imminent, he had decided to square himself with God by making restitution to the Alids, who for generations had been cheated of their right to rule.

In the letter, al-Ma'mun tells his relatives that Alids were the first and greatest allies of the Prophet Muhammad. The Abbasids and the Alids were a single party until God gave the caliphate to the Abbasids, who proceeded to terrorize and massacre their cousins. To redress this injustice, he nominated al-Rida, in the certainty that "no one of clearer excellence remained on the face of the earth." He defends having passed over his own son, al-Abbas, who, he says, was too young and "had not yet acquired learning in religion." Then, with apparent reluctance, he divulges the prediction: "Al-Rashid [had] informed me on the authority of his ancestors and of what he found in the *Book of the Reign* … and elsewhere that after the seventh of the descendants of al-Abbas no pillar would remain standing" for the Abbasids. By giving the succession to the Alids, he hoped to "gain safety and escape from fear on the Day of the Greatest Fright," meaning the Day of Judgment. For all these reasons, he says, "I do not deem that I have ever done a deed which is better in my opinion than the pledge of allegiance" to al-Rida (Madelung, "New Documents," 340–44).

This letter may be partly or entirely fabricated. But the anxiety it expresses is very much in the spirit of the age. At the time of al-Ma'mun's accession, the year 200 AH (= 816 CE) was only a few years away. Prophecies of apocalyptic upheaval tended to favor multiples of one hundred, and many such prophecies were in circulation in the period before 200 (and afterwards as

well, with the date of the apocalypse moved forward). It is not clear exactly when al-Ma'mun decided to appoint al-Rida, although he seems to have done so during the year 200. The accession ceremony itself took place in 201, but this did not necessarily matter. Al-Ma'mun had been on the throne during the fateful year, and its apocalyptic effect would presumably remain in force until the end of his reign.

In addition to the general feeling that something big was likely to happen in 200, there were specific predictions about the end of the Abbasid dynasty. Early Abbasid propaganda had described the family's turn in power as a prelude to the end times. After the reign of the last Abbasid, a titanic struggle between good and evil would take place, followed by the Day of Judgment. Some of the caliphs themselves had behaved as if these predictions were true. For example, the third caliph reportedly believed that his successor would be the resurrected Jesus. Al-Ma'mun seems to have been equally susceptible to doomsday scenarios, especially when they were supported by astrology. An early tenth-century source notes that "at the beginning of his reign, when he was under the sway of al-Fadl ibn Sahl and others, he made use of astrological predictions and felt compelled to heed their dictates" (Mas'udi, ¶ 3453). Unfortunately, there is not enough evidence to say more about his state of mind. But millenarian anxiety was common in the period around 200, and it would be odd indeed for him not to have been affected by it.

AN APPEAL TO IRANIAN MUSLIMS?

In addition to preparing for the end of days, al-Ma'mun may have been hoping for short-term political gain (and the two motives are not mutually exclusive). He may, for example, have been trying to win over the Shiites who had rebelled in Arabia

and the Yemen. Admittedly, most of the rebels had been subdued by the time the announcement was made. But al-Ma'mun must have realized he could not continue sending armies to the provinces every time an independence movement broke out. In distant Yemen, he had been forced to recognize one of the Alid rebels as governor. Placating the Alids and their Shiite partisans may have seemed a reasonable strategy, especially since he had few allies outside Khurasan.

Besides offering something to the Alids and their partisans, the nomination may have been intended to appeal to non-Arab Muslims, especially in Khurasan. Iranian Muslims were uncomfortable with an Islam that required reverence for Arabs as such. But they could learn to revere the Alids and the Abbasids, whose connection with the Prophet set them apart from all people, Arab or non-Arab, and made them an acceptable focus of loyalty for Muslims of diverse backgrounds. For these reasons among others, many Khurasanis had supported the revolutions of 750 and 813. Presumably, they would be especially sympathetic to a regime that included an Alid.

A sense of how Khurasanis were supposed to feel about Alids emerges from the following description of what happened when al-Rida set out to perform the Friday prayer in Marv. The narrator is a member of his entourage, and the manner of dress described is supposed to be that of the Prophet:

> Men, women, and children sat waiting for al-Rida in alleyways and on rooftops, and the generals were gathered outside his door. At daybreak, he rose, washed, and put on a turban of white cotton, draping one end over his chest and the other down his back. He rolled up his sleeves and trousers and said to his servants: "Do as I do." Then he took up his staff and went out barefoot, and we followed him …
> When the people saw us, and saw al-Rida stop outside the door and pray, all of Marv wept and shouted; the generals fell from their horses and tore off their boots. Every ten steps,

> al-Rida would stop and say "God is great" four times; and it seemed to us that the sky, the earth, and the walls answered him ('Utaridi, 1, 74–75).

In Shiite chronicles, accounts like this are used to explain why al-Ma'mun poisoned al-Rida: he found him threatening. Whether he really did or not is unknown. But some people certainly were threatened, namely the Baghdadis, who considered the nomination to be an unholy alliance between Iranian heresies and Alid revolutionary aspirations.

THE PROTO-SUNNI RESPONSE

Among the first to denounce al-Ma'mun's initiative were the Abbasids and the Sons of the Revolution. Both these groups had themselves come to power as the result of a revolutionary religious movement based in Khurasan. But they were unwilling to be pushed aside by a second movement of the same kind. For them, al-Ma'mun's policies represented a specifically Iranian attempt to undermine Islam. After al-Rida was nominated as heir apparent, one of the Sons accused al-Fadl of seeking to establish a new Sasanian dynasty: "All you want to do is take kingship away from the Abbasids and give it to the Alids, and then connive against them to make [the Sasanian emperor] Chosroes king again!" (Jahshiyari, 313). Another of the Sons boldly addressed al-Ma'mun as "commander of the infidels" (Ya'qubi, 2, 546) and was immediately beheaded.

If the Sons who were on the spot felt this way, the Abbasids in distant Baghdad must have had even more lurid ideas about what was happening in Khurasan. A sense of their reaction is conveyed by a late Abbasid chronicler's account of al-Rida's conduct of the Friday prayer in Marv:

> Al-Rida went out wearing a white shirt and a piece of white cotton fabric on his head. As he walked between the rows of

> worshippers, he said: "God, I ask you to bless and save me and my forefathers Adam, Noah, Abraham, Ishmael, Muhammad and Ali." When al-Ma'mun's troops saw him, they dismounted and prostrated themselves before him (Ibn al-'Imrani, 98–99).

This version of the story brushes aside al-Rida's supposed ability to dress in the same manner as the Prophet. More importantly, it has him include himself and his ancestor Ali ibn Abi Talib among the prophets (something that he never does in Shiite sources). Even more distressingly, it says that al-Ma'mun's troops revered him as if he were a god. If this is what the Baghdadis thought was going on in Khurasan, it is no wonder they were horrified.

After learning of al-Rida's appointment as heir apparent, the Abbasid princes deposed al-Ma'mun and installed one of his uncles, Ibrahim ibn al-Mahdi, as counter-caliph. Whether from expediency or conviction, Ibrahim made the most of the wave of popular revulsion not only for Shiism but also for doctrinal innovation. During his brief reign, a local Shiite with ties to Ali al-Rida was executed, and a *kalam*-debater was nearly lynched for arguing that the Qur'an was created. Politically, the opposition to al-Ma'mun was grounded in the Baghdadis' resentment of their loss of privilege. Religiously, it was grounded in the piety of the literalists who opposed *kalam*-debate, opinion-based jurisprudence, and Shiism. This increasingly powerful literalist movement eventually developed into what is today called Sunnism. For this reason, its ninth-century representatives are often called proto-Sunnis in modern historical literature.

As we have seen, the proto-Sunnis believed that everything a believer needed to know had been spelled out in the Qur'an and the Hadith. They denied that an imam, whether Alid or Abbasid, could dictate the law. They also denied that Ali ibn Abi Talib had been cheated of his rights by the first three caliphs and the Umayyads. The proto-Sunnis thus had every reason to mistrust al-Ma'mun, who differed from the Shiites only to the extent

that he claimed the status of imam for himself. Moreover, they had plenty of evidence that his rightly guided imamate was anything but. In a few short years, he had overthrown and killed a reigning caliph, brought hordes of barbarians to wreck the capital, and then nominated an heir apparent who claimed to know the law better than the scholars did. As far as the proto-Sunnis were concerned, al-Ma'mun was an enemy of the faith.

Even the chaos that reigned in Baghdad after the civil war enhanced the appeal of the proto-Sunni view of the world. The proto-Sunnis denied the caliphs any special religious privileges and rejected the idea of an imam, at least in the traditional sense of a single living guide to right conduct. Instead, they believed that the responsibility for upholding God's law had fallen to the community of believers. During the period of anarchy, the citizens of Baghdad put these ideas into practice by taking the administration of justice into their own hands. Two local leaders issued a call to "command good and forbid evil," that is, to ensure order by thrashing or imprisoning troublemakers. One of the vigilante leaders, Sahl ibn Salama, went so far as to say that he would carry out the religious obligation to enforce the law even against al-Ma'mun.

A REVERSAL OF POLICY?

Back in Marv, al-Fadl was working with increasing desperation to keep al-Ma'mun in the dark about what was happening in Iraq. The vizier feared a return to the former capital, where the Abbasid establishment would doubtless demand his replacement. When Harthama came to Khurasan to warn al-Ma'mun against letting "Zoroastrians" (Ya'qubi, 2, 546) run the government, al-Fadl convinced the caliph to fling the veteran general into prison. As we have seen, the vizier had also extracted a promise of safety from the caliph should he choose to resign.

But he still had reason to worry, especially when al-Ma'mun learned, reportedly from al-Rida, that the Baghdadis had elected a counter-caliph.

After confirming the report, al-Ma'mun set off for Baghdad. Apparently, he also rid himself of al-Fadl. During a stopover in the town of Sarakhs, the vizier was stabbed to death in a bathhouse. The caliph professed outrage and ordered the execution of the assassins, who protested to the last that they had acted on his orders. He did not, however, purge the vizier's entire family, as his father had done with the Barmakis. Rather, he allowed al-Fadl's brother, al-Hasan, to retain command of the army in Iraq. He even married al-Hasan's daughter Buran in a ceremony that became a byword for extravagance. Even so, al-Hasan seems to have remained suspicious of his master, and to have suffered or feigned a nervous breakdown and thus to have kept himself out of harm's way.

Al-Ma'mun and al-Rida then resumed their journey to Baghdad. A short time later, during a stopover near the town of Tus, al-Rida suddenly fell ill and died, reportedly after eating too many grapes. Modern historians are inclined to think that he, like al-Fadl, was murdered in order to pave a way for a reconciliation with the Abbasids. But the case is hardly straightforward. In the letter he reportedly wrote to his Abbasid relatives at the time, al-Ma'mun praises the Alids, insults the partisans of al-Amin, and insists that his decision to appoint an Alid heir had been a good one. But, he says, "the Commander of the Faithful wanted one thing and God wanted another, and his command could not forestall the command of God" (Madelung, "New Documents," 342, translation modified). The letter contains little indication that the caliph was trying to win over his relatives: on the contrary, he calls them malicious, stupid, and disgraceful. Again, the letter may not be authentic. But it does accord with al-Ma'mun's reported behavior at the time. After an ostentatious display of grief over al-Rida, he continued to use the green uniforms and banners he

had adopted in place of the Abbasid black. Moreover, he reportedly sought to recruit another Alid to fill the post of heir apparent.

Given the bitter controversy that later broke out over the issue, it is striking that several early sources say nothing to suggest that the caliph murdered his heir apparent, or even that he was suspected of having done so. What the sources do remark on is his apparent determination to stay the course. Even so, not everyone was convinced of his sincerity. The proposed Alid replacement is said to have rejected the offer out of hand: "Do you think I haven't heard what you did to al-Rida?" he wrote to al-Ma'mun, later mentioning "the grapes you used to poison him" (Isfahani, 628). In later Shiite accounts, it became a matter of faith to insist that al-Ma'mun murdered al-Rida. At the time, however, it seems that observers were genuinely uncertain as to what had happened. The most commonly cited eyewitness, Abu al-Salt al-Harawi, seems to have claimed that al-Rida was murdered, but not by the caliph. Unfortunately, his testimony has been so thoroughly distorted by later Shiite transmitters that it is difficult to be sure what he really said. But the idea that someone other than the caliph was responsible appears in other sources. One ninth-century chronicle mentions a rumor that the culprit was Ali ibn Hisham, a Khurasani supporter of al-Ma'mun who was later executed, ostensibly for financial misconduct. As far as we know, Ali ibn Hisham was not in Tus when al-Rida died. But others who had an interest in removing the heir apparent were there at the time. For example, the Sons of the Revolution, one of whom served as the head of al-Rida's ceremonial guard, may have taken the initiative to dispose of him.

AL-MA'MUN'S RETURN TO BAGHDAD

Even with al-Fadl and al-Rida out of the picture, there was little reason to expect a warm welcome in Baghdad. But the

caliph was confident that he could win over the capital. "There are only three kinds of people there," he told one of his partisans. "Enemies, sufferers, and people who fall into neither category." His enemies, he said, would be anxious to secure his forgiveness. The sufferers would profess loyalty in the hope of being compensated for their losses, while those in neither category would simply stay at home (Ibn Abi Tahir, 11). According to the narrator of this report, the caliph's assessment proved to be accurate.

Some Baghdadis, it seems, were genuinely excited to witness the caliph's return. One eyewitness describes the event as follows:

> I saw al-Ma'mun when he came from Khurasan. That was in the year 204 [= 819 CE]. He had passed through the Iron Gate and was moving toward al-Rusafa, and people were lined up in two rows as far as the mosque. My father was carrying me, and when al-Ma'mun went by, he lifted me up and said: "That is al-Ma'mun, and this is the year 204." I still remember him saying that. I was four years old at the time (Ibn al-Nadim, 74).

His optimistic prediction notwithstanding, al-Ma'mun embarked on a carefully considered campaign to win over the capital. The campaign began with gestures of deference to his family. Shortly after his return to Baghdad, he restored the traditional black uniforms and banners. Much to the admiration of the chroniclers, he wrote a letter of consolation to Zubayda, the mother of al-Amin; pardoned the counter-caliph Ibrahim ibn al-Mahdi; and allowed his half-brother's former vizier to retain a position (albeit a humble one) at court. The chronicles represent these gestures as manifestations of gratitude to God, which they doubtless were. But the large number of reports about them suggests that they were deliberately publicized as part of an effort to improve his reputation.

Less extensively reported are the measures he took to ensure the loyalty of the military, the bureaucracy, and the common citizens of Baghdad. The militia had gone unpaid since the fall of al-Amin, and seems to have survived by plundering the population. When the matter was brought to al-Ma'mun's attention, he paid the soldiers their salaries. After some hesitation, he also allowed the bureaucrats to remain at their posts. (Here, we are told, he was only making a virtue of necessity: his Khurasanis were apparently no good at administration.) As for the common people, he reportedly won their approval by establishing standard weights and measures to prevent cheating by the merchants. Of course, not everyone was reconciled: one anecdote has a Tigris boatman shout out: "How can I respect a man who kills his own brother?" as he passes the caliph's riverside pavilion (Khatib, s.v. 'Abd Allah b. Harun).

Even as he was pursuing a policy of reconciliation, al-Ma'mun was also taking steps to ensure his own security. Shortly after his return, he paraded his Khurasani troops through the city in a massive display of military might. He put Tahir in charge of the Baghdad police and the ceremonial guard, dismissing the Sons who had traditionally controlled those offices. He also established an extensive network of spies, who were employed to infiltrate dissident circles and keep an eye out for expressions of anti-regime sentiment. This force, which reportedly included many old women, had a great reputation for efficiency. Bureaucrats, Hadith-scholars, and *kalam*-debaters alike are commonly described as attacking al-Ma'mun in private only to have their comments repeated back to them by the caliph during their next encounter. As these reports suggest, not everyone was happy to see al-Ma'mun back in Baghdad. But the period from 813 until the caliph's death in 833 was peaceful, at least in comparison to what had gone before.

AL-MA'MUN'S LATER PRO-ALID POLICIES

During his campaign to win over the Baghdadis, al-Ma'mun soft-pedaled his radical opinions. Once he felt secure, however, he began to assert them once again. At one point, probably toward the end of his reign, he proposed the public cursing of Mu'awiya, the founder of the Umayyad dynasty, who had wrested the caliphate from Ali ibn Abi Talib. In 827, he issued a public announcement that "Ali ibn Abi Talib is the best of men after the Prophet" (Tabari, 3, 1099). At some point after that, he proposed the legalization of fixed-term marriage, a practice associated with Ali. He also ordered the army to shout "God is great" four times instead of three on ceremonial occasions, in the Shiite manner. Finally, he restored to the Alids the Arabian palm grove of Fadak, which had been taken from them after the death of the Prophet. These steps, along with his reported deathbed exhortation to his successor to treat the Alids kindly, have been cited as evidence for his Alid sympathies, and by extension as evidence for his innocence in the death of al-Rida.

Upon closer examination, however, it is clear that al-Ma'mun waited a good long time before announcing his pro-Alid policies, and even then stepped back from positions that were guaranteed to antagonize the proto-Sunnis. His early proposal to have Mu'awiya publicly cursed was shot down by an adviser who warned that "the common people will not stand for it, and the people of Khurasan [that is, the Sons of the Revolution] might rebel" (Ibn Abi Tahir, 54). The proposal to legalize temporary marriage was also dropped, probably for the same reason. The only policies that did go through were relatively benign. The announcement of Ali's superiority, while provocative, was less inflammatory than the cursing of Mu'awiya would have been. The return of Fadak doubtless seemed a charitable act, and the four-fold cry of "God is Great" affected only the army, which was at least to some extent composed of Khurasanis loyal to al-Ma'mun.

To explain these policies, the chroniclers have al-Ma'mun express passionate sympathy for the sufferings of the Alids. But the policies can also be understood as a response to his proto-Sunni opponents. By standing up for the Alids, al-Ma'mun was affirming that the religious and political leadership of the Muslim community belonged to the family of the Prophet. By cursing Mu'awiya (or proposing to), he was affirming that any caliph who was neither an Alid nor an Abbasid had indeed been a usurper. By reviving fixed-term marriage (or proposing to), he was affirming Ali ibn Abi Talib's right to declare what the law was. At the same time, not coincidentally, he was affirming his own right to do the same.

Even though al-Ma'mun never committed himself to an extreme pro-Alid policy, the parts of it that did become public (and, no doubt, the rumors of his more radical proposals) were extremely trying for the literalist proto-Sunnis. Fortunately for al-Ma'mun, the leaders of the movement happened to be quietist. Although they no longer wanted an imam in the sense of a ruler who defined law and doctrine for them, they did acknowledge the need for government. Moreover, they deplored conflict among believers. Accordingly, they exhorted their followers to obey the authorities, even unjust ones, for the sake of civil order. Al-Ma'mun thus had little reason to fear that the proto-Sunnis would take up arms against him. The one who came closest to doing so, the vigilante leader Sahl ibn Salama, meekly ceased his activities after the caliph's return to Baghdad. Even so, al-Ma'mun must have realized that the proto-Sunnis accepted him for reasons that had little to do with his self-proclaimed status as imam.

LATER SHIITE RESPONSES

For Sunni chroniclers, the heir apparency of al-Rida is a minor episode. They are more interested in the civil war between

al-Amin and al-Ma'mun and in the inquisition that al-Ma'mun was to launch at the end of his reign (see Chapter 6). For Shiite chroniclers, on the other hand, al-Rida's appointment and death are major events. For millions of Shiite believers even today, they are moments of profound significance. To understand why this is the case, it will be necessary to look briefly at the later development of Shiism and the evolution of its attitudes toward al-Rida and al-Ma'mun.

At some point before the year 900, mainstream Shiites concluded that there had been twelve imams and that al-Rida had been the eighth. Biographers who belonged to this so-called Twelver sect then retold the life stories of the imams in a manner consistent with their new understanding of how imams behaved. In the case of al-Rida, biographers set out to show that he had never wanted to be heir apparent and that he accepted only because he knew that he was fated to do so. They also set out to show that he had been poisoned by al-Ma'mun. The resulting version of events became standard among Twelver Shiites, and remains so today.

According to al-Rida's leading Twelver biographer, Ibn Babawayh (d. 991), al-Ma'mun nominated al-Rida in order to discredit him in the eyes of his followers. When al-Rida tried to refuse the appointment, the caliph threatened to kill him. Al-Rida finally accepted, though he refused to take any responsibility for the conduct of affairs. Invited to debate with Jews, Christians, and Muslim heretics, he demonstrated his perfect knowledge of the religious law by defeating them all. Realizing that his plan to discredit the imam had backfired, al-Ma'mun had him poisoned. One account says this was done by infusing poison into grapes by using needles; another says that it was done by having a servant peel a pomegranate with poison under his fingernails. When the heir apparent died, al-Ma'mun is supposed to have made a show of grief but to have privately mocked al-Rida's followers for putting their faith in a false

imam. Later, he is said to have realized the error of his ways when various miracles occurred during al-Rida's funeral.

Why was it so important to make a case for al-Ma'mun's guilt? The answer is that Shiites had by the tenth century developed a doctrine to the effect that all their imams had been murdered. This doctrine, which was inspired by the fact that the first imam had been assassinated and the third killed in battle, seems to have been used as a way of sorting out who the true imams really were. To make a case for a particular candidate, his partisans found it useful to claim that he had been killed, just as the first and third imams had been. In his biography, Ibn Babawayh has al-Rida quote the third imam to the effect that "all of us will be murdered" (Ibn Babawayh, 2, 203–204). In al-Rida's case, having him die by foul play also helped acquit him of any suspicion that he had willingly accepted the heir apparency.

More than one Shiite scholar found Ibn Babawayh's take on the episode unconvincing. The first to do so was one of his students, al-Shaykh al-Mufid (d. 1032), who was famous for his rational turn of mind. Being killed, he argued, is a chance event; it has nothing to do with the essential qualities of knowledge and justice that make an imam an imam. To prove that al-Rida was murdered, one has to study historical reports, not make assumptions on the basis of doctrine. A later scholar, Radi al-Din ibn Tawus (d. 1266), took up the invitation to look more closely at the evidence. For him, the critical document is the letter al-Ma'mun wrote to explain why he had nominated al-Rida. In the letter, the caliph praises the heir apparent and heaps insults on the Abbasids. How, asked Ibn Tawus, could the man who wrote this letter have poisoned the imam? A third scholar, Ali ibn Isa al-Irbili (d. 1317), says that al-Ma'mun's "kindness to and affection for [al-Rida], and his appointment of him at the expense of his own relatives and children, all support and confirm" the suspicions of Ibn Tawus (Irbili, 3, 112–13).

But these expressions of skepticism were not enough to turn the tide. The view eventually adopted by the vast majority of Shiites was that Ali al-Rida "died a martyr, poisoned by al-Ma'mun" (Majlisi, 12, 311).

THE PILGRIMAGE TO MASHHAD

Unlike the other events described in this book, al-Ma'mun's encounter with Ali al-Rida is alive and well in popular memory. For modern-day Shiites, it exemplifies the oppression their imams suffered at the hands of the caliphs. For Iranian Shiites, who constitute the majority of Shiites in the world today, al-Rida holds a particularly important place because he is buried in their country. Al-Rida died near Tus, in the north-eastern part of what is today the Islamic Republic of Iran. Once he attained his retrospective designation of imam, pious Shiites began visiting his tomb. Eventually a shrine was built there, and enlarged and restored in the course of the ensuing centuries. The town that grew up around the shrine was given the name Mashhad, which means "place of martyrdom" and thus "shrine" in Arabic and Persian. Folk poetry depicts the imam as "the king of Khurasan," with the shrine as his court, and declares that a visit to the tomb is worth a thousand pilgrimages to Mecca.

Today, Mashhad is one of the leading pilgrimage sites in the world. Every year, millions of Shiites travel there to visit the shrine, which is housed in an imposing building glittering with blue tiles and topped by a golden dome. Inside stands his tomb, which is enclosed in a cage of gold. For centuries, the custom was to walk around it; but now a Plexiglas barrier divides the tomb-chamber into two spaces, one for men and one for women. On both sides, visitors recite prayers and weep. Many push their way through the crowd to the tomb, where they cling to the bars of the cage and address al-Rida. They ask him

to admit them to Heaven, find them a job or a spouse, or heal their children. They also come to thank him for granting their wishes, in which case they leave money, carpets, or furniture as a donation to the shrine. The pilgrims' contributions, along with the revenue from properties dedicated to the shrine, have made its governing body the fourth-largest corporation in Iran.

The flip side of reverence for al-Rida is hatred for al-Ma'mun. When they enter the shrine, many pilgrims pronounce a curse on him. During the yearly celebration of the imam's birthday, the citizens of Mashhad dress a volunteer in a bright red gown and turban, drape him with costume jewelry, and seat him inside a box. Fastened on the front of the box is a placard reading "The Accursed Ma'mun." The mock caliph is lifted into the air and marched through the streets, where onlookers shower him with insults. Al-Ma'mun also figures prominently in a recent Iranian television series about the career of al-Rida. In *The Rule of Love*, the caliph is depicted by the talented actor Mohammad Sadeghi as an intelligent and sensitive figure who sincerely admires the imam. In the end, however, he succumbs to the dictates of *Realpolitik* and does away with him. In the final scene, he forces him to drink poisoned pomegranate juice.

In the period before the Islamic revolution of 1979, popular grief for the imams served as a vehicle of protest against the secularist and authoritarian regime of the Shah. Since the revolution, the Islamic government has tried to capitalize on popular religiosity to shore up its claims to legitimacy: hence the architectural improvements to the shrine of al-Rida, and the production of a hagiographic television program about his career. The widespread disaffection with the regime has not, however, detracted from the devotion many Iranians feel toward the imams. Despite the attempts at co-optation by the regime, al-Rida and the other imams continue to serve as symbols of moral triumph against oppression and injustice. Of

course, the story of any such triumph requires a villain. Of all the Abbasids, al-Ma'mun was probably the one with the greatest sympathy for the Alids. But for millions of Shiites, he is remembered first and foremost as the murderer of the imam al-Rida.

5

SCIENCE AND RATIONALISM

After his return to Baghdad in 819, al-Ma'mun was able to devote himself to the business of government. He was also able to promote *kalam*-debate and other kinds of rational inquiry. "He held sessions with *kalam*-debaters and experts in disputation and speculation," says one source. "He made a practice of meeting with religious and literary scholars, whom he brought from provincial cities and supported with regular stipends, thereby stimulating interest in speculative reasoning" (Mas'udi, ¶ 3453). While in Marv, he had revived the Barmaki practice of inviting representatives of various schools of thought to present their points of view. He continued this custom in Baghdad, where scholars were offered elaborate hospitality:

> Every Tuesday, al-Ma'mun would invite the *fuqaha'* and the representatives of other schools of thought to debate with him. The guests would be shown into a carpeted room and invited to remove their shoes and their heavy headgear. They would then be given food and drink. After eating and performing their ablutions, they were fumigated with incense and aromatics. Then they went to see the caliph, who gathered them close to him and debated with them fairly and without coercion (Mas'udi, ¶ 2726).

One set of scholars did not participate in these sessions: the literalist scholars of Hadith. As we have seen, the literalists

believed that everything revealed by God (which for them included the Hadith) should be taken on faith whether it made sense or not. What made them worrisome to the rationalists is that they were popular: well-known teachers of Hadith could draw crowds reportedly numbering in the thousands. From the caliph's point of view, such gatherings did nothing but lead the common people astray. Instead of learning religion from their imam (that is, himself) or some other reliable source, the "ignorant rabble" (as he called them) were being taught simple-minded credence in anything and everything the Prophet was supposed to have said. Most infuriatingly, the Hadith-men abhorred *kalam*-debate, meaning that he had little opportunity to talk them around to his point of view.

Eventually al-Ma'mun decided to confront the Hadith-men head on. In the meantime, however, he contented himself with offering as much support as he could to rational inquiry. In addition to surrounding himself with *kalam*-debaters, he sponsored the activities of translators, astronomers, mathematicians, engineers, physicians, and other practitioners of what today would be called the sciences. He was not the first caliph, or the last, to support scientific activity. But he did so with more personal enthusiasm than any other caliph before or since. Today, the political crises that marked his reign are only dimly remembered. But the scientific breakthroughs that took place at the same time have become part of the global heritage. Although al-Ma'mun was not personally involved in all the intellectual activities that he supported, no account of his reign would be complete without them.

There is, by the way, no completely accurate way to refer to the scientific activities that took place in Southwest and Central Asia, North Africa, and Spain beginning in the mid-eighth century. "Islamic science" is misleading because, apart from a few astronomical techniques – the fixing of prayer times, the determination of the direction to Mecca, and the calculation of the new moon – these activities had nothing to do with Islam as such.

Also, many practitioners were Christians, Jews, or pagans, especially in the early period. "Arab science" is also wrong, since most of the men involved were Iranians or Arameans. For our period, "Arabic science," meaning scientific work described in the Arabic language, is the most accurate, although it does not apply to later times, when scientific books were also written in Persian.

THE ANCIENT SCIENTIFIC LEGACY

Arabic science drew on several traditions, of which the most important was the Hellenistic one. The Greek-speaking philosophers of Alexandria and other eastern Mediterranean cities had cultivated rational inquiry as a way of approaching the divine. Knowledge, they believed, could make a man into something like a god. Building on the work of their ancient Greek predecessors, they produced treatises on logic, mathematics, geometry, astronomy, medicine, and other subjects. In certain important ways, their efforts were not scientific in the modern sense. For one thing, they were more interested in the ideal form of things than the imperfect versions of that ideal that existed in the real world. They did not place a premium on observation, nor did they practice controlled experimentation in order to achieve repeatable results. Furthermore, they were only occasionally interested in using scientific discoveries to serve practical ends. As a result, much of Greek and Hellenistic science strikes us today as fanciful speculation or mystical mumbo-jumbo. Arabic-speaking scholars inherited these limitations, and much of their work may seem misguided by modern standards. But they also inherited the idea that systematic human inquiry could grasp truths about the world. To the extent they worked from this premise, their efforts can properly be called scientific.

Arabic-speaking scholars got only bits and pieces of the Greek and Hellenistic tradition, and had no idea at first how the

bits and pieces were related to each other. Often, too, the texts they read had been translated from Syriac, the language used by the Christians of Syria and Iraq. Even so, the ideas quickly struck deep roots in Abbasid intellectual life. Given the difficulty of translating Greek into Arabic, not to mention the novelty and complexity of the ideas being transmitted, it is striking to see how readily Arabic-speaking scholars took up the so-called "sciences of the ancients" and made them their own. But the ancient traditions had not simply vanished after the Muslim conquests. They had remained alive among the Greek-speaking populations of Egypt and Syria, in the churches and monasteries of the Christians, and among the pagan Sabeans of Harran. Arabic-speaking scholars must have learned a great deal through informal contacts with representatives of these traditions. Unfortunately, there are few records of this process.

Besides appropriating the Greek tradition, Arabic science also drew lessons from India, and to a much lesser extent from Iran. Early mathematical astronomy was based on works translated from Sanskrit. The so-called Arabic numerals, as well as the system of decimal placement, also came from India. But no scholar active in al-Ma'mun's time could read Sanskrit, as far as we know. Many could read Middle Persian, but there was little science for them to translate from that language other than a few works on astrology. On the other hand, Iranian traditions were influential in the area of patronage. The Barmaki viziers sponsored translations from Greek and Syriac; and the House of Wisdom, as the caliphal library in Baghdad was called, may have been modeled on a Sasanian predecessor.

THE TRANSLATION MOVEMENT

By al-Ma'mun's day, some Greek and Indian material was already available in translation. For example, the *Sindhind*, an

Indian work of mathematical astronomy, had been partially translated from Sanskrit; Aristotle's *Topics*, on logic, had been translated from Syriac; and Ptolemy's *Almagest*, another work of mathematical astronomy, had been translated twice, once from Syriac and again from the original Greek. During al-Ma'mun's reign, many more works were translated for the first time, while others were retranslated to make them more readable and accurate. One of his younger contemporaries, the Mu'tazili essayist al-Jahiz, proudly proclaimed that

> the books of India have been translated, and the wisdom of Greece and the traditions of Persia likewise, losing nothing in the process, and often indeed emerging superior to the original …These books have been transmitted from one nation to another, from one generation to the next, and from one language to another before reaching us; we are the latest to inherit them and examine them (Jahiz, *Hayawan*, 2, 75).

Al-Jahiz goes on to cite the opinion of an unnamed skeptic who finds it hard to believe that the works of the ancients could be transmitted without crippling errors on the part of the translators and copyists. To this objection he replies that foreign works "are widely considered to be informative, despite what has been lost in translation." The popularity of translated literature, and the astonishing quality of many of the surviving translations, bears out this verdict. In fact, the Arabic versions were so good that readers took them for granted. As far as we know, no Muslim scholar ever bothered to learn Greek in order to read foreign texts in the original.

The achievements of the translators can best be appreciated by looking at an example of their work. For this purpose, only a bad translation will do: turned into English, a Greek original and a good Arabic version of it will look practically the same. Fortunately, there exists a bad translation of Aristotle's

Rhetoric, a study of the means of persuasion. In the following passage, the ancient philosopher defines the good:

> Let us assume good to be whatever is desirable for its own sake, or for the sake of which we choose something else; that which is the aim of all things, or of all things that possess sensation or reason, or would be, if they could acquire reason (Aristotle I, vi, 2, tr. Freese).

The anonymous Arabic translator renders this as follows:

> Good is what is chosen for its own sake, or for the sake of which we choose something else, and what is desired by everyone endowed with sensation or understanding (Aristutalis, 27).

Here, at least, the supposedly bad translation is actually quite good. The translator omits the last part of Aristotle's definition, but he does not do so arbitrarily. The original says "the aim of all things, or of all things that possess sensation or reason." The translator evidently decided to skip the discussion of "things," since only human beings have sensations and reason, and wrote "everyone" instead.

Elsewhere, though, the translator knew too little about ancient Greece to understand the text properly. The result is language that cannot have made much sense to anyone. At one point, for example, Aristotle describes how actors modulate their voices while performing on the stage. This kind of dramatic delivery, he says, "only made its appearance late in tragedy … for at first the poets themselves acted their tragedies" (Aristotle, III, i, 3). For Arabic speakers, who had no tradition of playwriting, the passage must have been utterly mysterious. But the translator gave it his best shot: "The assuming of faces … has been done in *taraghudiyyat* … only recently" (Aristutalis, 182). "Assuming faces" is a literal translation of the Greek *hypokrisin*, which refers to the practice of wearing masks on the stage. "Tragedy," however, made no sense to him at all,

so he simply transliterated the Greek word *tragodia* into Arabic letters. (In his commentary on Aristotle's *Poetics*, the twelfth-century philosopher Ibn Rushd writes that "tragedy" means "invective poetry," a misunderstanding immortalized in a short story by the Argentinian writer Jorge Luis Borges.)

At this point, one may wonder how Europeans, who were equally distant from ancient Greek culture, managed to understand passages like this. At first, they did not. European scholars originally became interested in the Greek legacy during the eleventh century. At that time, however, the only available texts were in Arabic. Many of these texts were heroically translated into Latin, often with the help of Jewish scholars who knew Arabic or had access to Hebrew translations. Not until the Renaissance did Europeans approach the Greek originals, which they did by going to study with Byzantine scholars. In this manner they became directly acquainted with parts of the Greek legacy unknown to their Abbasid predecessors, including the epic and the drama. (The Baghdad translators had heard of Homer, but only one seems to have read him.) After the fall of Constantinople to the Turks in 1453, the Byzantine scholars took refuge in Italy, bringing their expertise with them. Of course, the Christian Byzantines did not necessarily understand everything in the pagan texts either. Since the nineteenth century, Western translations (such as the one of Aristotle cited above) have drawn on historical linguistics and archaeology to clear up textual problems. Even today, however, many passages of ancient Greek literature remain obscure.

In the course of translating Greek works on a variety of subjects, ninth- and tenth-century scholars added a vast number of new words and expressions to the Arabic language. Confronted, for example, with the word *logike*, "logic," the translators looked at the root, which is *logos*, meaning "reason" or "utterance." To translate "logic" they therefore used *mantiq*, then a relatively uncommon word meaning "manner of

speech." Particularly troublesome were Greek compounds such as *atomon*, "atom," literally "non-divisible." For this Arabic scholars used a four-word expression meaning "the part that cannot be divided," although some later opted for a single word meaning "speck of dust." In many cases, Greek terms appeared in transliterated form (such as *diyaliqtiqiya* for "dialectics") before a proper translation was found (in this case *jadal*, meaning "disputation"). In other cases, such as *jughrafiya* and *musiqa*, the Greek word became naturalized in Arabic. The meanings of these new words may not have been perfectly clear to first-time readers in the ninth century, but they soon became familiar, and many of them remain so today.

MEASURING THE EARTH

Al-Ma'mun took a lively personal interest in scientific activity. He was particularly attracted to astronomy, which in his day overlapped with astrology. Following the Greek astronomer Ptolemy (d. 150?), Arabic-speaking scientists believed that the universe consisted of a giant sphere, which contained a smaller sphere, and so on for a total of eight spheres, with the earth in the center of the whole assembly. The sun, the moon, the planets, and the stars were embedded in the spheres, which rotated around the earth. It was commonly believed that the motion of the spheres influenced human activity. The *kalam*-debater Abu al-Hudhayl (d. 841?) reportedly denounced this idea as deterministic and absurd. Al-Ma'mun, however, seems to have taken it seriously, or at least pretended to in the following poem:

> Sleepless, I watch the heavens turn
> Propelled by the motion of the spheres;
> Those stars spell out (I know not how)
> The weal and woe of future years.

> If I flew up to the starry vault
> And joined the heavens' westward flow
> I would learn, as I traversed the sky,
> The fate of all things here below (Ma'mun, 75).

If this understanding of the cosmos seems odd, it should be contrasted with the way the Hadith-minded literalists imagined the universe:

> The lower part [of the world], which was created first, consisted of an original earth which God then split into seven. The seven earths are arranged one above another like a stack of plates; we inhabit the top one and the devil the bottom one, which is hell. Above the earths God placed an analogous stack of heavens; the lowest heaven is our own sky, the topmost in Paradise (Cook, 26).

Among other things, al-Ma'mun's astronomers knew the earth was round. Thanks to him, they also arrived at a fairly good idea of how large it was. In a work by Ptolemy, the caliph had read that the circumference of the earth was 180,000 *stadia*. Unfortunately, he did not know how long a *stadion* was, and the translators he consulted were not sure either. Frustrated, he ordered his astronomers to measure the earth themselves.

To carry out this assignment, they adopted a method similar to those used before them by the Greeks. The earth's circumference, like any circle, can be divided into 360 degrees. If one can determine the length of one degree in terms of distance on the ground, one can multiply the result by 360 and derive the circumference. To determine the length of a degree, the astronomers traveled to the conveniently flat plain of Sinjar in northwest Iraq. There they marked the spot where they happened to be standing when the sun was directly overhead. Then they split up into two teams. One team traveled directly north and the other directly south, with each taking periodic readings

of the position of the sun. At a certain point, each team appeared to have moved one degree – measured in relative terms – away from the sun, which was treated as a fixed point by correcting for the distance it had traveled across the sky during the march. The average of the distances traveled by the two teams was 56 miles (90 km). This, then, was the length of one degree. Multiplied by 360, it yielded a figure of 20,160 miles (32,444 km) for the circumference of the earth. This figure was known to Christopher Columbus, who found it cited in the work of the Spanish Muslim scholar al-Farghani. According to modern calculations, the correct figure is 24,901.55 miles (40,075.2 km), although it is not clear whether the miles involved are exactly the same length (the *stadion* problem again).

Al-Ma'mun must have understood the method, because he himself chose the place where the astronomers were to make their observations. He also realized that the figure was likely to be inaccurate due to the crudeness of the available instrumentation. In the last years of his reign, he ordered the construction of a giant brass ring for tracking the movement of the sun. After the ring was installed at the observatory in Damascus, the astronomers noticed that its shape changed during the course of the day. This alteration made the ring less reliable for observational purposes. Informed of the problem, he commissioned the construction of another instrument, a giant iron column. But this too changed shape, as he himself learned when he measured it against a marble pillar. Admitting defeat, he quoted Ptolemy: "We have measured the circuits of the sun as accurately as possible, using whatever techniques have come to us since the days of the [Greek astronomer] Hipparchus [d. 120 BCE]. Those who follow us must do the same and correct whatever inaccuracies they find without condemning them, because there is no such thing as a perfect observation" (Langermann, 121).

True to the spirit of Ptolemy, al-Ma'mun never stopped trying to determine the size of the earth. During a campaign

against the Byzantines, he commissioned a measurement using a different technique. The necessary observations could only be performed at an elevated place near the sea, and the rugged coast of Cilicia (in what is today Turkey) afforded many such places. The caliph ordered one of his astronomers, Sind ibn Ali, to measure the height of a convenient peak and then climb to the top of it. From there, Sind measured the angle of the line between his position and that of the setting sun, relative to the straight line between his position and the center of the earth. Having ascertained this angle, as well as his elevation above sea level, he could estimate the size of the earth by using trigonometry. Unfortunately, the sources do not record his result. But it is striking that al-Ma'mun, even in the middle of a military campaign, was still concerned about the size of the earth. From this report, too, it is clear that he understood how the technique was supposed to work.

GREEK MEDICINE IN BAGHDAD

Like astronomy, the field of medicine illustrates the extent to which the "sciences of the ancients" had become naturalized in ninth-century Baghdad. In the early Abbasid period, the most celebrated physicians were Nestorian Christians from Iran. The Nestorian church had preserved numerous writings in Greek which, in addition to being the language of the Church Fathers, was also the language of Hippocrates and Galen, the two great physicians of antiquity. Although few medical students could read Greek, they studied the ancient texts with the help of commentaries and translations in Syriac, the literary language of the church. Because Syriac was unknown to outsiders, the Christian doctors were able to maintain a near monopoly on medical knowledge for almost two centuries after the Muslim conquests.

According to Hippocrates and Galen, there are four basic properties in nature: heat, cold, moisture, and dryness. The four basic substances in the body – blood, phlegm, black bile, and yellow bile – contain these properties in different proportions, and their relative quantities determine the "humor" or dominant property of the body as a whole. Being healthy is a matter of maintaining an appropriate balance among the four key substances. Illness, conversely, is a result of a severe imbalance in the system. Asked to describe his qualifications, one of al-Ma'mun's doctors declared that he knew how to "cool the body, warm it up, moisten it, or dry it out, depending on where the excess is," these four skills being "all a physician needs to know" (Ibn Abi Usaybi'a, 167).

To balance their humor and prevent disease, patients were urged to keep a careful eye on their diet. Al-Ma'mun was reportedly an expert in the humoral properties of various foods, as one of his guests reports:

> One day we had lunch with him, and there must have been three hundred different dishes on the table. Every time a dish was served, he would look at it and say that it was good for this or beneficial for that; or that anyone with a moist and phlegmatic humor should avoid this; or that anyone who was bilious or melancholic should have some of that; or that if we wanted to gain weight, we should eat this; or if we were trying to eat less, we should try that. He had something to say about every dish that was served, and continued in this manner until the table was cleared (Ibn Abi Tahir, 36).

Although their theories may seem odd to us, the physicians prided themselves on their rational approach to health and healing. To appreciate their position, it is useful to recall that the alternative to humoral medicine was not modern medicine but rather the folk cures available in the ninth century. Besides home remedies (about which there is little information, except to the

extent that physicians adopted the ones that seemed to work), the most common recourse was to faith healing and magic. These involved praying or reading the Qur'an over the sick, handling relics, and visiting the tombs of holy men. Al-Ma'mun himself would buy up relics of the Prophet and stroke them when he was ill, although he admitted that he did so for sentimental reasons. One of his attending physicians, Yuhanna ibn Masawayh, was even more dismissive of such practices. When he himself fell ill, he refused to allow visitors to pray at his bedside, commenting that a tablet of rose extract would do him more good than all the prayers in the world.

Humoral therapy is still practiced in the Indian subcontinent, where it is called "Greek medicine." As its advocates point out, many of its recommendations are based on the sound notion of preventive medicine. Precisely because the determination of hotness, coldness, and the like in the body and in food is arbitrary (by current Western standards, anyway), the theory can be stretched to account for any perceived connection between ingestion and health. With centuries of accumulated clinical experience to draw on, practitioners of "Greek medicine" may know a great deal about the effect of foods and activities on the body. In the ninth century, the insistence on treating a patient by modifying his diet was especially sensible. Although they did not understand the nature of infections, physicians knew from experience that making incisions, leaving them open, and inserting foreign objects into the body were all dangerous procedures to be embarked on only as a last resort. Bloodletting, cupping, and the other operations that followed from the humoral theory were not very intrusive, and surprisingly few patients seem to have died from them.

Not everyone believed the humoral theory was valid. Warned not to eat fish together with yogurt, al-Jahiz (the essayist cited above on the subject of translation) objected with a *kalam*-style argument. "Either the fish and the yogurt share a

single property, and eating some of both will have the same effect as eating more of either one; or they have opposite properties and will cancel each other out" (Ibn Abi Usaybi'a, 230). Because this story is reported by a biographer who was a physician himself, the skeptical al-Jahiz is stricken with paralysis when he ignores the doctor's advice. But not even the doctors believed everything they read in the works of the ancients. From the biography of another of al-Ma'mun's physicians, Mikha'il ibn Masawayh, it seems that strict adherence to ancient practice was a curiosity:

> [Mikha'il] took no pleasure in professional conversation and would never adduce evidence for the things he said. He rejected everything that had been invented in the past two hundred years, and would dispute with any physician who disagreed. Once he was asked what he thought of plantains, and he said: "I have seen no mention of them in the books of the ancients, and so I never eat plantains and I never feed them to patients" (Ibn Abi Usaybi'a, 232).

The reference to "the past two hundred years" shows that physicians considered their profession to be one where clinical experience was cumulative. Al-Ma'mun encouraged his doctors to contribute to the development of their field by writing books. Among the works dedicated to him are two by Jibra'il ibn Bakhtishu', one on food and drink and the other on the compounding of incense. Of the other books composed by the leading physicians of the period, many were doubtless summaries used for teaching purposes. Others, however, were the results of original research. For example, Yuhanna dissected a monkey and wrote a treatise on its anatomy. He admitted that Galen had done the same thing, but his own work, he said, was "like nothing before it in Islam" (Ibn Abi Usaybi'a, 227) – a striking comment from a Christian, even one who had no faith in the power of prayer.

In al-Ma'mun's time, there was no formal procedure for licensing doctors or regulating the practice of medicine. On one occasion, however, the caliph was inspired to test the honesty of pharmacists. After an alchemist complained that the materials provided by druggists were not always genuine, al-Ma'mun sent messengers to the shops to ask for a fictitious item called *saqtitha* (the name of a town near Baghdad). The pharmacists sent back a variety of substances, including seeds, bits of stone, and goat hair. The caliph apparently did not punish the offenders, although he did reward the alchemist. Later, however, this story was brought to the attention of the field commander al-Afshin, who tested his pharmacists by choosing random names from the military rolls and sending messengers to fetch drugs by those names. The druggists who professed ignorance were given permanent posts in the army, while those who claimed to have the substances in question were banished from the camp and disgraced by public proclamation.

THE BOOK OF INGENIOUS DEVICES

Despite its achievements, medicine was limited in its development because it had to labor under the burden of an inherited and largely unquestioned theory about how the world works. In fields where theory was ignored, applied scientists came up with techniques still in use today. One example is in the field of mechanics, to which al-Ma'mun made an important if indirect contribution. During his residence in Marv, he had employed an astronomer named Musa ibn Shakir. When Musa died, al-Ma'mun took responsibility for the education of his orphaned children Muhammad, Ahmad, and al-Hasan, who were called the Banu Musa ("the sons of Musa"). "Their condition was shabby and their allowances small," one biographer reports, "but this was true of everyone in al-Ma'mun's

entourage, and of the people of Khurasan in general" (Qifti, 442). When the court moved to Baghdad, the Banu Musa continued their studies of the mathematical sciences, which, following the Greek curriculum, included geometry, astronomy, and music. During the next several decades, they applied their knowledge of mathematics to such practical matters as digging canals and estimating the size of armies. In the process, they earned enough money to figure as major patrons of the translation movement. Their careers continued well after al-Ma'mun's death. One source reports that Muhammad, the eldest brother, died in 873.

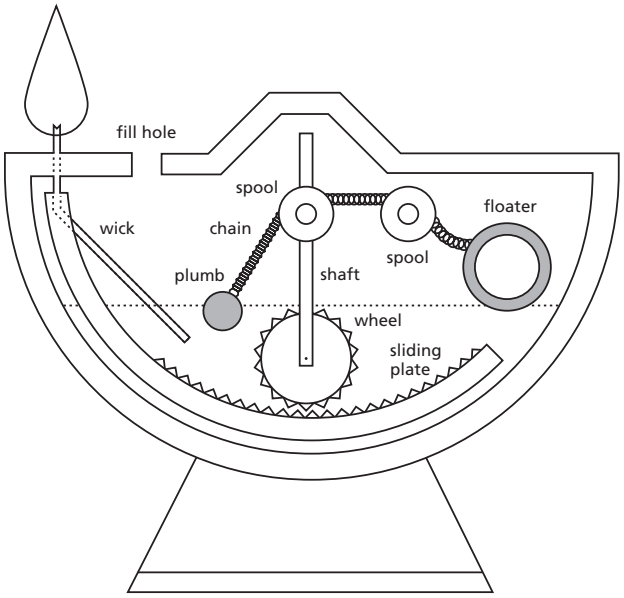
The Banu Musa were familiar with ancient studies on mechanics, particularly the treatise by Hero of Alexandria, which had been translated into Arabic by Qusta ibn Luqa. But their major work on the subject, the *Book of Ingenious Devices,* makes no mention of Hero or anyone else. Strikingly, too, it contains no discussion of the natural laws that allowed mechanical devices to work. While they obviously understood the relevant principles, the Banu Musa did not discuss them for their own sake, at least not in the books that have survived. The reason may be that Greek texts on mechanics are concerned only with building working models, not with developing a general theory of physics, which was the province of philosophers. This was doubtless a good thing: as we have seen in the case of medicine, reliance on ancient theories did not always make for good science.

The *Book of Ingenious Devices* contains descriptions and diagrams of one hundred mechanical gadgets. Many, such as the vessel that whistles when immersed in water, were obviously meant for entertainment. Others, however, were designed for practical purposes. These include a wind-proof torch, a spill-proof jar, and a dredging machine. More important, however, than the stated purpose of each apparatus is the mechanism it illustrates. All of the mechanisms adapted or invented by the Banu Musa are still in use, and they fall into two basic types. The

first type harnesses natural forces such as gravity, atmospheric pressure, and flotation to create motion. The second type transfers that motion from one part of the system to another. One such mechanism, the crankshaft, would not appear in Europe for five hundred years.

An example that combines both types is Device No. 96, where the Banu Musa use a plumb bob and a cogwheel to produce a self-regulating oil lamp. In a conventional lamp, the wick burns down to the point where it emerges from the lamp. When this happens, the flame goes out. The Banu Musa's self-regulating lamp is designed to push out more of the wick and thus keep the flame burning. It can be diagrammed as shown below:

The lamp consists of a hollow metal body. Along the bottom is a curved strip of metal that slides back and forth. The wick runs through a hole at one end of the strip. Attached to the top



(Adapted from Banu Musa, 365–67)

of the lamp on the inside are two spools and a chain. At one end of the chain is a plumb (a small lead weight). At the other is a hollow bob or floater twice the weight of the plumb. The lamp is filled with oil through the hole at the top. As the level of oil rises, the floater rises with it, allowing the plumb to pull down on the chain. The chain turns the spools and the attached shaft counterclockwise. As the shaft moves, it carries the wheel with it. The teeth on the wheel catch the teeth on the curved strip and slide it counterclockwise, pulling the wick down. As the level of oil drops, the whole process runs in reverse: the floater sinks and pulls the chain clockwise, the wheel turns, and the wick is pushed out.

We are told that the Banu Musa's inventions were famous. But there is no evidence that they were used for practical purposes. This indifference to utility may strike us as odd, but there were good reasons for it. Given the expert craftsmanship required, it would have been difficult to mass-produce and sell machinery at a price that would make it a viable alternative to slave and animal labor. The same was true everywhere in the world in the ninth century, and the situation did not change until the advent of industrial capitalism and the consequent interest in efficiency. The inventions of the Banu Musa came about because there was enough of an agricultural surplus to allow a handful of people to tinker with the fascinating gadgets they had read about in books. But the results could not lead to a technological revolution, nor were they intended to.

BREAKTHROUGHS IN MATHEMATICS

The case is rather different in another field, that of mathematics. In the first Arabic book on algebra, the author, Muhammad

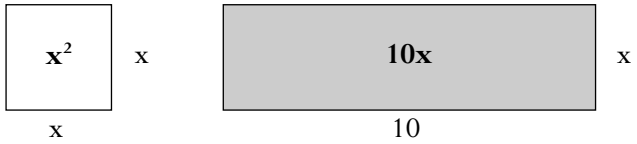
ibn Musa al-Khwarizmi, declares that his purpose is to help people with "inheritances, bequests, tax assessments, legal verdicts, commercial transactions, land surveying, water rights, and *handasa,*" a term that refers to any activity requiring geometrical calculation, including the construction of buildings and the digging of canals (Khwarizmi, 16). As we have seen, complex calculations were necessary in the case of inheritances, where the Qur'an stipulates that, after debts and bequests have been deducted from the legacy, the amount be divided among the parents, siblings, spouse, and children of the deceased, in fixed proportions (see Chapter 2).

By the ninth century, problems dealing with unknown quantities were not new. Such equations had been solved by the seventh-century Indian astronomer Brahmagupta, whose *Sindhind* had been translated into Arabic around 770. Closer to al-Ma'mun's time, al-Hajjaj ibn Matar produced a translation of Euclid's work on geometry, which contains algebraic problems. But the first scholar to deal thoroughly and systematically with the subject was al-Khwarizmi, who in the introduction to his book thanks the caliph for his support:

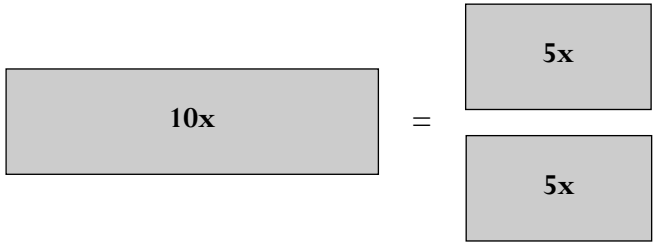
> God has honored the imam al-Ma'mun, the Commander of the Faithful, by conferring upon him the noble legacy of the caliphate; and, most encouragingly for me, by instilling in him a love for the arts and sciences and a wish to promote and support the efforts of scientists to clarify obscure problems and find solutions to them (Khwarizmi, 15).

Al-Khwarizmi's book is called *al-Jabr wa l-muqabala*, "Reducing the terms of an equation by addition and subtraction." He begins by defining three kinds of quantities: simple numbers, squares, and square roots. He spells out the different types of equations that can be constructed using these elements, and gives examples of each. Then he shows how to solve the equations using geometry. For example, to solve

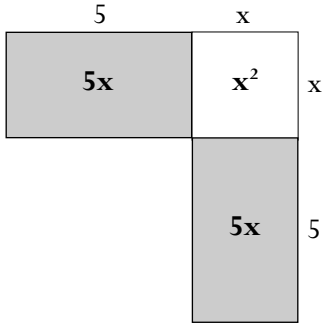
$x^2 + 10x = 39$, he begins by representing x^2 as a square and $10x$ as a rectangle:



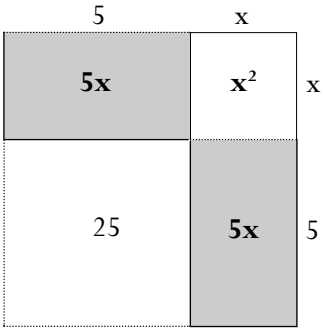
He then divides the rectangle in half, producing two rectangles of dimensions 5 by x.



Next, he attaches the two rectangles to the square by bringing together the sides that have a length of x:

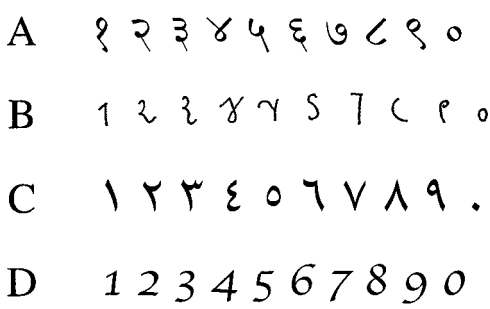


He then encloses the area defined by the two rectangles. This results in the creation of a square with an area of 5 times 5, that is, 25, which completes a large square measuring $5+x$ by $5+x$:



Since we know that $x^2 + 10x$ (the original square plus the two rectangles) equals 39, we can calculate the area of the large square as 39 plus 25, that is, 64. The square root of 64 is eight. Therefore, the large square measures eight by eight. We know that part of the side is five units long; the remainder must be three units long. Therefore, x must be 3.

In his book on algebra, al-Khwarizmi writes out all the numbers in full. In a later work, he introduced the Indian system of notation (shown in A, below) on the basis of sources unknown to us. The Indian system included symbols for the numbers and for zero, along with the convention of using decimal places. It now seems obvious to us that three hundreds and six tens and five ones should be written as 365, using particular symbols in a particular order, but the convention is ingenious and hardly self-evident. It was not adopted immediately; most figures in al-Ma'mun's time and afterward were either written out in words or abbreviated using letters. In later centuries, as the idea caught on, the symbols were often altered (as in B, which shows the numerals as they appear in a tenth-century Arabic manuscript). The notation spread to North Africa and from there to Europe, with the symbols again being turned or modified in various ways. These parallel developments resulted in two distinct systems: the one used in the Middle East today (C) and the so-called 'Arabic numerals' used in most other parts of the world (D):



(Adapted from Soussi, 468–69)

There is some disagreement about whether the Indian system presented by al-Khwarizmi is the direct ancestor of the one adopted by later Arabic-speaking scientists. But there is no doubt that his algebra is the ancestor of ours: the name of the technique in Western languages comes from the twelfth-century Latin transliteration of the title of his book, *al-Jabr wa l-muqabala*. (The author's name survives, by way of another Latin transliteration, in the word "algorithm," meaning a standard procedure for calculating something.) And, whatever the extent of al-Khwarizmi's personal contribution, it is generally accepted that Arabic-speaking mathematicians are responsible for transmitting and developing, on the basis of Indian and Greek sources, three of the basic tools of modern life: algebraic calculation, numerical symbols, and decimal notation.

THE MAP OF THE WORLD

Al-Ma'mun's mathematicians, astronomers and craftsmen combined their skills to complete one of the most spectacular projects undertaken during his reign: the mapping of the world. Here again, the scientists were building on an earlier tradition. Cartography was known to the ancients, and a world

map had been prepared during the reign of al-Rashid. However, al-Ma'mun's scientists had good reason to think that they could improve on previous efforts. They had a translation of Ptolemy's *Geography,* which contains coordinates for many of the cities of the ancient world. They had two new observatories at their disposal, one in Baghdad and one on a hilltop near Damascus. They also had extensive experience with algebraic and trigonometric calculation, and they had a relatively accurate measurement of the circumference of the earth.

Al-Ma'mun's scientists soon discovered that many of Ptolemey's coordinates were wrong, and many cities (including, of course, those built by the Muslims) were not included at all. The scientists thus began by calculating or recalculating the position of major landmarks. To do this, they used variations on the technique they had used to calculate the circumference of the earth: that is, they measured the apparent difference in the position of celestial bodies as seen from different points. To determine the positions of Baghdad and Mecca, for example, the astronomers took readings in both cities during a lunar eclipse. In this case, they also checked their findings by measuring the distance between the two cities on the ground. Using these methods, they estimated the latitude of Baghdad to be 33°09' and that of Mecca to be 21°42', figures that compare respectably with the modern values of 33°20' and 21°26'.

Once the coordinates were established, the cartographers had to deal with the problem of projection. Because the earth's surface is curved, it cannot be represented accurately on a flat surface. For maps that take the equator as the base line, the distortion increases as one moves closer to the poles. This is why, for example, the Arctic and Antarctic on most modern maps look much larger in proportion to the other continents than they are in reality. As far as we can tell from surviving copies of al-Ma'mun's maps, his cartographers solved the problem using a partially stereographic projection. That is, they spaced the

lines of longitude at decreasing intervals relative to the meridian. This trick would partially replicate the effect of looking at a curved surface from above. (The cartographers did not apply the same procedure to the lines of latitude, which were evenly spaced. If these had been altered as well, the result would have been a round map.) Although stereographic projection had been known in ancient times, it was not adopted in Europe until 1524.

The completed *Geography of al-Ma'mun* was by all accounts a very impressive document. According to a tenth-century source, who ascribes it to Ptolemy, it contained star charts depicting "the universe with its spheres and heavenly bodies" along with maps of the earth and lists of topographical features:

> In his *Geography*, the philosopher provides a description of the earth, including cities, mountains, seas, islands, rivers, and springs, with the inhabited cities and cultivated places indicated. At that time, the number of cities was 4530; they are listed one after the other, by region. The mountains of the known world, amounting to more than two hundred, are painted in red, yellow, green, and other colors. Their heights, and the deposits, metals, and gemstones they contain are also listed. The work gives the number of seas as five, and shows both the inhabited and uninhabited islands … There is also a list of 230 major springs and 290 rivers. All these bodies of water are drawn according to their sizes and shapes, and painted in different colors … However, their names are in Greek and hard to make out (Mas'udi, ¶191–193; cf. Sezgin, 83–84).

Unfortunately, the work has not survived, at least not in its original form. On the basis of copies and extracts, however, it is clear that it represents an important advance over earlier efforts. For one thing, it is more accurate. Certain features, such as the Aral Sea, which is missing in Ptolemy, are depicted in their proper places. Also, al-Ma'mun's mapmakers derived the coordinates not only for cities and mountains but also for

selected points along the coastline. As a result, they were able to come up with a more accurate idea of the shape of the oceans. Greek geographers thought that they were enclosed by land, but al-Ma'mun's mapmakers depict them as connected. Finally, al-Ma'mun's maps are the first known examples to be marked with scales, which allow the distances between any two points to be measured on the map itself.

HOSTILITY TO THE LITERALISTS

The sources do not explain precisely why al-Ma'mun commissioned his map of the world. We do, however, have a striking reference to one of the ways in which it was used. In 833, the caliph summoned the religious scholars to proclaim their agreement that the Qur'an was created. Among the few who refused was Ibn Hanbal, the die-hard Hadith-minded literalist. After al-Ma'mun's death, Ibn Hanbal was visited by representatives of the new caliph, al-Mu'tasim, who tried to persuade him to back down. At one point in the course of the argument, the caliph's representatives showed the defiant scholar a map of the world. The source for this report does not explain what they hoped to accomplish by doing this. We might, however, guess at the point they were trying to make. The earth was a bigger place than Ibn Hanbal knew, and the Hadith had nothing to say about it (or at least, nothing useful to a geographer).

This report is one of several to suggest that scientific activity had a role to play in the struggle between the rationalists and the literalists. In the ancient Greeks, the rationalists discovered a kind of authority they could invoke against their rivals. This seems to be the point of the legend about al-Ma'mun and Aristotle. In the story, the caliph has a dream in which he sees a man seated in an assembly of philosophers and scientists. The man identifies himself as Aristotle, and then, in response to the

caliph's questions, defines the good as "whatever is good to the intellect" and then only secondarily as "whatever is good according to religious law" (Ibn al-Nadim, 243). This dream reportedly inspired al-Ma'mun to seek out books by ancient philosophers and have them translated. Leaving aside the inaccuracy of that claim, the legend indicates that the caliph's advocacy of rationalism was understood as an attempt to invoke the ancients against the scriptural literalists. The point was not that reason and revelation necessarily led to different conclusions (since everybody concerned believed in God). Rather, it was that the literalists thought that Qur'an and Hadith alone were sufficient guides to belief and practice while the rationalists did not.

By the end of al-Ma'mun's reign, the Greek idea of philosophy (called *falsafa* or *hikma*, "wisdom") had been adopted as a model for all kinds of intellectual inquiry. Among the first Muslims to call himself a philosopher was al-Kindi (d. 873?), who began his career during the reign of al-Ma'mun. In one of his essays, al-Kindi defines *falsafa* as "knowing things as they really are, to the limits of human capacity." The aim of the philosopher is "to apprehend the truth and act on it" and thus "to perfect the species." But there are people who object to this project "because they cannot grasp the methods that lead to truth." These people, he says, envy the philosopher and attack him "in order to defend the flimsy thrones they have set up for themselves, not because they deserve to occupy them, but rather because they seek to gain a popular following and profit by the sale of religion" (Kindi, 9 and 13). The "impostors" al-Kindi is describing are the scriptural literalists. Even before he wrote this essay, the state, inspired by al-Ma'mun, had launched an ambitious campaign to compel them to abandon their beliefs.

6

DEFENDER OF THE FAITH

During the last decade of his reign, al-Ma'mun succeeded in re-establishing the authority of the caliphate in several provinces where it had lapsed. He also built up the army by recruiting new troops, including Turkish slave soldiers from Central Asia. Feeling secure enough to leave Baghdad, he embarked on a series of campaigns against the Byzantines in Anatolia. Unlike previous Abbasid campaigns, these seem to have had as their goal the conversion of the Christian population and the creation of new Muslim settlements in Anatolia. Between campaigns, al-Ma'mun visited Egypt and possibly Jerusalem, where an inscription commemorates his efforts to obliterate the memory of the Umayyad dynasty. But the most ambitious of his initiatives during this period was the launching of the so-called Inquisition, his great effort to reclaim religious authority from the champions of Hadith.

RECENTRALIZATION AND THE NEW MILITARY

The tendency to provincial self-government that had appeared during the civil war continued after al-Ma'mun returned to Baghdad in 819. A ninth-century historian lists 26 regions from Armenia to Yemen that were ruled by local chiefs with little or no

formal recognition by the central government. Northern Iraq, for example, was under the control of a tribal leader, Nasr ibn Shabath, who had supported al-Amin and continued to hold out against al-Ma'mun. Even more threatening was the movement of Babak in Azerbaijan. Babak was the last of the Iranian prophets who had risen to offer an alternative to Arab and Muslim domination. His ideology – unlike the Arabism of Nasr ibn Shabath – offered no grounds for compromise with the caliphate.

In some cases, al-Ma'mun was able to win back the provinces through diplomacy. In other cases, he decided to fight. Having pushed aside the Sons of the Revolution, he had only one reliable military force at his disposal: the Khurasani troops commanded by Tahir and his sons. Members of Tahir's family were accordingly given the governorships of Khurasan and Egypt as well as the headship of the Baghdad guard. One of Tahir's sons, Abdallah, led a campaign against Nasr ibn Shabath, who was eventually persuaded to accept the caliph's promise of a pardon. But the limits of Abdallah's loyalty became clear when he refused to lead his armies against Babak in Azarbaijan. Two caliphal armies had already failed to subdue the rebels, and Abdallah – who like his father was more interested in governing Khurasan than in serving al-Ma'mun – had no incentive to exert himself in what was likely to be another failed campaign. It is under these circumstances that al-Ma'mun again felt the need to recruit new troops.

Among the soldiers who had fought for him in the civil war were Turks, who had a reputation for being especially skillful with a horse and bow. After the war, the recruitment of Turks seems to have continued through the acquisition of slave soldiers. Unlike the Khurasanis, whose loyalty to the caliph was mediated by relationships of patronage and kinship, the Turks offered "a new kind of loyalty that was direct, formal, and unconditional" (El-Hibri, 276). Al-Ma'mun's brother al-Mu'tasim was especially active in buying Turkish slaves, whom he trained to serve as his personal guard. During the

second phase of the civil war, al-Mu'tasim had taken the side of the counter-caliph, Ibrahim ibn al-Mahdi; and his relations with al-Ma'mun were understandably strained. After the caliph's return to Baghdad, however, the brothers were reconciled, and al-Ma'mun "lent his full support to the formation of the [Turkish] guard" (Gordon, 45). In 829–830, al-Mu'tasim assumed the governorship of Egypt, bringing with him a reported four thousand Turkish troops. While in Egypt, he seems to have recruited a second new force, called the Maghariba, apparently composed of local Arab prisoners of war.

In subsequent decades, the Turkish troops became the mainstay of the Abbasid army. In 836, al-Mu'tasim, who had succeeded al-Ma'mun as caliph, built a new capital for the express purpose of housing them. The vast scale of the barracks at Samarra gives some idea of the size of the army: over 100,000 men, according to one estimate. Not all of these were Turks: some were Khurasanis, others belonged to the Maghariba, and others again belonged to regiments called the Jund and the Shakiriyya, about which little is known. But the dominant figures were the Turks. As their power increased, they began to defend their interests more aggressively. When the caliph al-Mutawakkil attempted to free himself from their tutelage, he was assassinated (861). The ascent of the Samarran Turks foreshadows the eventual eclipse of the caliphate as a viable political institution. Al-Mu'tasim is often held responsible for setting this process in motion. But it is clear that al-Ma'mun played a role as well, both by acquiring Turks himself and by encouraging his brother to do so.

THE BYZANTINE CAMPAIGNS

Having set his own house in order, more or less (Babak was not defeated until 838, when the Turkish troops proved their

effectiveness), al-Ma'mun was able to indulge more grandiose ambitions. As caliph and imam, he had the duty of pursuing war against the infidel. Although there were infidels everywhere, the traditional enemy of the Muslim state was the Byzantine empire. The Umayyads had twice laid siege to Constantinople, and noted Companions of the Prophet had died outside the walls. Al-Ma'mun's father, al-Rashid, had led the campaigns against the Byzantines in person. Hostilities had lapsed during the civil war: while the Muslims were distracted by the struggle between al-Amin and al-Ma'mun, the Byzantines were being battered by the Bulgars. By 829, however, the Abbasids were ready to renew the traditional border war with the Byzantines. By all indications, al-Ma'mun brought a new seriousness of purpose to this endeavor.

Under al-Rashid, the annual campaign against the Byzantines had to some extent taken on the character of a ritual. Neither side expected to make substantial gains against the other: whatever territories were captured were usually lost again in short order. Al-Ma'mun, however, seems to have intended to conquer as much of Byzantine territory as possible. In a series of campaigns that continued until his death in 833, he succeeded in capturing all the major fortresses in Cilicia and Cappadocia (in the south-central and central regions of what is today Turkey). He also began recruiting troops from Iraq, Syria, and elsewhere, with the evident aim of throwing more men into the fight. When the emperor Theophilus sued for peace, al-Ma'mun replied that he intended to continue fighting until all the Byzantines either converted to Islam or accepted protected status as Christians under Islamic rule. The caliph seems to have treated the Byzantine captives as prospective subjects, in some cases buying back prisoners in order to set them free. Reportedly, too, he planned to settle Arab tribesmen in the conquered territories. "Had al-Ma'mun lived, the continuation of his policy might have produced revolutionary

social and political results" (El-Hibri, 297). In the event, however, the Byzantine campaigns came to an abrupt end (if only for the time being) when the caliph died in 833.

It should be noted that relations between the two empires were not confined to the battlefield. According to one report, al-Ma'mun sent a delegation of translators to the Byzantine empire to ask for manuscripts of Greek works on philosophy and science. Allegedly, the delegation persuaded the emperor to open a sealed pagan temple where the manuscripts were stored. The report appears to be at least partly legendary. However, we know that Greek manuscripts were brought to Baghdad, so the legend may contain some elements of truth. Less believable is the story that al-Ma'mun expended great effort to persuade Leo, a Byzantine astronomer and mathematician, to set up shop in Baghdad. Given the achievements of his own scientists, it is unlikely that the caliph would have been so eager for foreign assistance. Contemporary Arabic sources declare that the Muslims had little to learn from the Byzantines, whose intellectual achievements (it is said) hardly measured up to those of their ancient ancestors.

THE DOME OF THE ROCK

While the caliph was engaged on the Byzantine front, a rebellion broke out in Egypt. It seems to have begun as a movement for local autonomy, but soon developed into a massive uprising on the part of the Coptic (i.e. Christian) population. In 832, al-Ma'mun decided to travel there himself. Characteristically, he dismissed the governor and ordered a tax reduction. Uncharacteristically, he also punished the rebels by executing or enslaving them. But the projects that most occupied his interest were the translation of the hieroglyphs, which did not succeed, and the penetration of the Pyramid of Khufu,

which did, although the caliph was disappointed with the results (see Chapter 1).

On his way to Egypt, or on his way back to the Byzantine front, al-Ma'mun may have passed through Jerusalem. So, at least, it seems from an inscription on the outside of the Dome of the Rock. Today the inscription reads: "This dome was built by the servant of God, Abd Allah al-Ma'mun, the Commander of the Believers, in the year 72 [AH = 671 CE]. May God accept [this act of piety] from him and pardon him" (Kessler, 9). In reality, the dome was built by the Umayyad caliph 'Abd al-Malik (r. 685–705). It was (and still is) located on the spot where Solomon's temple is supposed to have stood. According to tradition, the rock that stands in the center of the shrine is the altar where Abraham planned to sacrifice his son. (Later legend added a new layer of meaning by designating the rock as the spot where the Prophet Muhammad had stood before his ascent to heaven.) It is clear from the appearance of the mosaic inscription that the name of 'Abd al-Malik was removed and replaced with that of al-Ma'mun. There is no evidence that the latter was present when this happened. But whether he was or not, it is hard to imagine why the alteration should have been undertaken unless he had ordered it.

Why did al-Ma'mun want to claim credit for the Dome of the Rock? According to the Abbasid version of history, the Umayyads had been illegitimate caliphs. Moreover, it was the Umayyads that some of the Hadith-men hoped to see restored in a messianic revolution. This was no mere fantasy: an Umayyad rebellion had actually taken place in nearby Damascus during the reign of al-Amin. These considerations alone might have been sufficient to justify the removal of 'Abd al-Malik's name from the Dome. More importantly, however, al-Ma'mun may have wanted to associate himself with the building's religious message. Among the inscriptions are several that denounce the Christian doctrine of the Trinity. One part,

for example, reads: "Praise be to God, who has no son, nor any partner in kingship" (Kessler, 9). Given his ongoing campaign against the Byzantines, al-Ma'mun would have had good reason to appreciate the Dome's anti-Christian polemic. But the notion of God's oneness was important to him in another way as well. To the caliph's mind, his belief that the Qur'an was created, which he had publicly proclaimed for the first time in 827, affirmed the unity of God. By denying that the Word of God was created, his old enemies the literalists were (in his opinion) repeating the error of the Christians, who believed that Christ the Logos was co-eternal with God. This is precisely the "error" the caliph was to use as a pretext to launch the Inquisition.

PROVOKING THE LITERALISTS

In the years preceding the Inquisition, al-Ma'mun tried to provoke the Hadith-men using the explosive issue of the Prophet's Companions. Looking back on the conflicts that had broken out among the early Muslims, believers had taken various positions on who had been right. The Shiites, of course, believed that Ali ibn Abi Talib, his descendants, and their partisans had been right while everyone else had been wrong. A group called the Murji'ites believed that while some Companions had been right and others wrong, there was no way for subsequent generations to know which was which. The literalist Hadith-scholars refused to say that anyone had been wrong. Some of them nevertheless refused to acknowledge Ali ibn Abi Talib as a legitimate caliph on the grounds that he had not ruled by universal consent. Al-Ma'mun's position, as we have seen, was closest to that of the Shiites, although he included the Abbasids among the families qualified to produce imams.

Shortly after his return to Baghdad in 819, the caliph had invited forty prominent scholars to join him in a discussion on

religion "as a way to bring all factions together for the good of the faith." During the discussion, he had argued that the practice of the Prophet's Companions could not be accepted uncritically. Some of the Companions, he had said, were worthier than others. Moreover, some of their legal rulings were contradictory. Therefore, it was necessary to judge each case on its merits and overturn the rulings of certain Companions if necessary. Afterwards, he complained that some of his guests had understood his argument to mean simply that he preferred Ali ibn Abi Talib over the other Companions. Such reasoning, he said, was typical of those who "collect students, declare themselves leaders, summon their followers to one innovation or another, and cry out for the blood of anyone who opposes them" (Ibn Abi Tahir, 46–47). He expressed the hope that these misguided rabble-rousers might be persuaded of the error of their ways by means of reasoned debate. If they refused to listen to reason, however, they would have to be brought around by force.

Once his position in Baghdad was relatively secure, al-Ma'mun abandoned his policy of persuasion for one of provocation. In 826, he announced penalties for anyone who spoke well of Mu'awiya, the Companion who had overthrown Ali and founded the Umayyad dynasty. In the next year, he announced that Ali was the best of men after the Prophet. At some point, he reportedly overturned the ruling of a judge who had condemned a Shiite for cursing the first two caliphs. All of this was shorthand for saying that he, the caliph, was a member of the Prophet's house and so, like Ali, had the right to pronounce on matters of faith. By implication, the authority that the Hadith-men claimed on the basis of memorizing and transmitting reports about the Prophet and the Companions was groundless. By further implication, the creed they professed on the basis of their texts was wrong, primarily because they refused to subject it to any kind of rational analysis.

This point was made explicit in the announcement of 827, which in addition to praising Ali declared that the Qur'an was

created. This question had been a matter of debate for some hundred years. Everyone agreed that the Qur'an was the speech of God, but there was no consensus on what that meant. The Hadith-scholars, as usual, took the description literally. God, for them, had a body and organs of speech, and His speech could not be separated from Him. The rationalists, as usual, interpreted it metaphorically. God, they said, does not speak in the same way human beings do; rather, He "creates the sound of speech which can be heard" (Madelung, "Origins," 506). The Qur'an, like any speech attributed to God, is therefore created. For the rationalists, this doctrine maintained the absolute separateness of God from His creation.

Why did al-Ma'mun make a public declaration of this particular creed? His purpose in challenging the Hadith-scholars was to affirm his religious authority and undermine theirs. Had he chosen another doctrine – such as, for example, the doctrine that God does not have a body – he would have been forced to argue against the apparent meaning of the many Qur'anic verses and Prophetic Hadiths that describe the Deity as having a face and a hand, or as moving from one place to another. The createdness doctrine, however, was different: there were no early texts about it one way or the other. This is precisely why the Hadith-men at first refused to discuss the matter. They doubtless realized that if they agreed to discuss the question, they would be forced to offer interpretations of revealed texts. In other words, they would have to face the *kalam*-debaters on the latter's own ground.

THE INQUISITION

In 833, al-Ma'mun took the unprecedented step of demanding that the religious scholars profess agreement with his position on the Qur'an. He ordered seven prominent Baghdadi scholars

to be sent to him in Raqqa, the Syrian town where he had stopped on his way to the Byzantine front. The seven included Yahya. ibn Ma'in, who was the most prominent Hadith-scholar in Baghdad at the time; Ibn Sa'd, the author of a massive biographical work on the Prophet and the early Muslims; and two associates of Yazid ibn Harun, a recently deceased advocate of the uncreatedness of the Qur'an. All seven affirmed that it was created. After they returned to Baghdad, they were forced to repeat their confessions before an assembly of their colleagues. When the Hadith-scholar Ibn Hanbal heard the news, he reportedly exclaimed: "If only they had borne the ordeal and stood fast for God, the matter would have ended there" (Hanbal, 35). At about this time, al-Ma'mun ordered Ishaq ibn Ibrahim, his governor in Baghdad, to assemble another group of scholars and examine them as well. This time, many of the scholars resisted. Infuriated, the caliph sent two more letters to the governor detailing the steps to be taken against the dissenters. Taken together, the caliph's letters provide a full account of what he was trying to accomplish and why.

The first point that al-Ma'mun makes in the letters is that he has the right to guide the community in religious matters. He describes the caliphs as "the heirs of the prophets" and "God's trustees over His creatures." It is their duty, "by virtue of the knowledge God has given them," to exert themselves on behalf of the true faith. They must "guide those who have strayed and pull back those who have turned away, leading them down the path of salvation and showing them the line between right and wrong in matters of faith" by "exposing to them what is unclear or confusing to them" (Tabari, 3, 1112 and 1117). Al-Ma'mun thus claims to possess divinely guided insight into right and wrong. He also claims a God-given mandate to enforce whatever religious beliefs he deems to be correct.

The second point is that the Qur'an is created. To make his case, al-Ma'mun cites passages from the text and interprets

them as indications that the revelation is a created object. For example, he argues that the term "tightly constructed" (Q. 11: 1), which the Qur'an uses to describe itself, implies that the text was put together – that is, created – by God. In addition to making positive arguments, the caliph attacks the position he believes his opponents to hold. In the following passage, for example, he argues that their creed compromises God's unity:

> In saying [that the Qur'an is created], they inadvertently deny to God the power that distinguishes Him from His creatures and makes Him unique in His majesty, namely, the power to create all things by His wisdom and bring them into being by His power; as well as the distinction of preceding them by virtue of His infinite extension. Everything that exists other than God has been created and brought into being by Him, [including the Qur'an,] despite the fact that it speaks of Him, refers to Him, and settles all disputes regarding Him. [To argue otherwise is] to argue like the Christians, who claim that Jesus is uncreated by virtue of being the Word of God (Tabari, 3, 1118).

In reality, the dissenting scholars did not necessarily believe that the Qur'an was uncreated. But they did refuse to say that it was created: to do so would have been to make a creedal affirmation with no basis (as they saw it) in revelation.

The third point that comes through from the letters is that the literalists are dangerous because the common people trust them in matters of religion. His opponents, says the caliph, call themselves "the people of truth, religion, and community" and claim to be upholding the Sunna. In reality, however, they are "the spokesmen of the Devil," and their only purpose is to attract a popular following. Evidently, they have succeeded: in language taken almost word for word from the Persian *Testament of Ardashir*, al-Ma'mun describes their followers as "the great mass of ignorant subjects and the rabble of the common

people" who moreover "have no capacity for reflection, insight, or reasoning from God's proof and guidance" (Tabari, 3, 1112–13; cf. Steppat 452). A contemporary observer, the Mu'tazili essayist al-Jahiz, reports that popular support for the "anthropomorphists" (that is, the literalists) comes from plasterers, weavers, boatmen, goldsmiths, and the like. He too describes them as ignorant and misguided. Strikingly, neither he nor al-Ma'mun evinces any compassion for those led astray by the literalists. Instead, both of them heap one insult after another on the "common people" whose souls they are presumably trying to save.

THE SCHOLARS RESIST

Following al-Ma'mun's instructions, the governor of Baghdad, Ishaq ibn Ibrahim, assembled a further group of scholars (twenty-six this time) and put them to the test. The response credited to the Hadith-scholar Ibn Hanbal illustrates the position taken by those who gave the caliph's opinion no weight at all. Asked if the Qur'an was created, he said: "It is the speech of God, and that's all I have to say." Asked to affirm that "nothing in God's creation resembles Him in any respect whatsoever," he recited Qur'an 42: 11: "Nothing resembles Him; He sees and hears." In effect, Ibn Hanbal was declaring that God had already said whatever needed to be said on this topic. He was also making the point that the caliph's declaration had omitted the closing words of the verse, "He sees and hears." Accused of trying to argue that God has eyes and ears, the scholar retorted that he had no idea what the verse meant. All he knew was that God "is as He describes Himself" (Tabari, 3, 1123–24).

Ibn Hanbal's answer is doubtless what al-Ma'mun expected to hear from a hard-line Hadith-scholar. But, as the caliph learned to his dismay, similar views were rampant even among

jurists who worked for the state. One of them, Bishr ibn al-Walid al-Kindi, replied to the governor's questions as follows:

> Ishaq: "What do you say about the Qur'an?"
> Bishr: "It's the speech of God!"
> "That was not my question. Is it created?"
> "God is the creator of everything."
> "Isn't the Qur'an a thing?"
> "Yes."
> "So it's created?"
> "It isn't a creator."
> "That's not what I'm asking! Is it created?"
> "I have nothing more to say" (Tabari, 3, 1122–23).

Perhaps not coincidentally, Bishr had recently been dismissed from his post as judge in Baghdad after punishing a Shiite for cursing the first two caliphs. At the time, neither he nor the other state-employed jurists are described as objecting to al-Ma'mun's overruling of the verdict. Whatever they may have thought privately, they were afraid to challenge the caliph's direct intervention in a matter of law. But when asked to renounce their own convictions in a matter of faith, they refused to comply. The response of another *faqih*, Hassan al-Ziyadi, typifies this position:

> Al-Ziyadi: "The caliph is our imam; through him we have learned most of what we know. He has heard what we have not, and he knows what we do not. God has given him charge over us. He [the caliph] has maintained the communal prayer and the pilgrimage, collected our alms-tax, and led us in war against the unbelievers. We regard his imamate as a true imamate, and we will obey his commands and prohibitions. Should he call upon us to do a thing, we will comply."
> Ishaq: "The caliph says that the Qur'an is created."
> Al-Ziyadi: "Perhaps he believes that without demanding assent to it" (Tabari, 3, 1122–23).

Evidently, al-Ziyadi shared the Hadith-scholars' reservations about the powers of the caliph. The literalists accepted al-Ma'mun, as they accepted authority in general, as a necessary evil. Someone had to maintain order, dispense justice, collect taxes, safeguard the pilgrimage route, fight the infidel, and the like. So long as the caliph did these things, or made a reasonable pretense of doing so, it was forbidden to challenge him. But the Hadith-men had no place for an activist caliph when it came to questions of belief and practice. If the caliph wanted to think that the Qur'an was created, there was nothing they could do about it. But they refused to endanger their own salvation by agreeing with him.

For al-Ma'mun, who had begun his career by declaring himself "the imam of right guidance," such indifference was intolerable. He did not think of himself as a mere king: anyone could simply rule, as the Umayyads had done. He was a caliph and a kinsman of the Prophet, and he had the special privilege of serving as a source of guidance in all matters pertaining to the welfare of the community. But the scholars had made it clear that they did not want his guidance. Even more provocatively, they thought of it as a positively bad thing, at least where he was concerned. And now, as the caliph had discovered, even those scholars who were not literalist Hadith-men felt the same way too.

When he learned of the evasive replies offered by many of the scholars, al-Ma'mun sent a harshly worded letter ordering Ishaq to interrogate the dissenters again. Anyone who refused to say that the Qur'an was created was to be sent in chains to the caliph's camp on the Byzantine frontier. There, they would be given one more chance to save themselves. If they refused to take it, they would be beheaded. Faced with this threat, all but four of the dissenters made the required declaration. (Later, those who capitulated were to say that they had done so under duress.) The governor, who seems to have been reluctant to carry out the caliph's orders, gave the four dissenters yet

another chance to save themselves. Two of them capitulated, but the remaining two – Ibn Hanbal and an obscure student of Hadith named Muhammad ibn Nuh – stood their ground. They were accordingly dispatched to the frontier in chains. When they had gotten as far as Raqqa, they learned that the caliph had unexpectedly died.

THE DEATH OF AL-MA'MUN

The sources report that al-Ma'mun had fallen ill while camped near Tarsus, a town on the eastern Mediterranean coast of what is today Turkey. The accounts of his illness contain a great deal of contrived detail. Most claim that he contracted a fever after bathing his legs in an icy river. (A similar story is told about Alexander the Great, who reportedly fell ill in the same spot but survived.) Some accounts add that the fever was brought on by eating dates while bathing. Others claim that a fish that he was trying to catch fell back in and splashed him with cold water. One report adds that he died as a result of unnecessary surgery performed by a physician acting on the orders of his brother al-Mu'tasim; another report suggests that al-Mu'tasim poisoned him. In the literature of the Hadith-men, we are told that the caliph died because Ibn Hanbal, on his way to Tarsus in chains, had prayed that he would never come face to face with him.

Unlike his father, al-Ma'mun does not appear to have established elaborate provisions for the succession. The likeliest person to succeed him was his son al-Abbas, who – according to one chronicler, at least – had received the oath of allegiance as heir apparent before his father left to fight the Byzantines. But another source says that al-Ma'mun designated his brother al-Mu'tasim, who was with him in Tarsus, as his successor. Reportedly, this arrangement was reflected in the last few letters sent from the front. But the decision seems odd, especially since

al-Mu'tasim was "a soldier with few of the qualifications of religious leadership which al-Ma'mun had always viewed as essential for the caliphate" (Madelung, "New Documents," 346).

A likely possibility is that al-Mu'tasim took advantage of his brother's illness to claim the heir apparency for himself. This interpretation seems especially plausible in view of the shock and dismay – reported by all the sources – with which al-Abbas's partisans greeted the announcement. Al-Abbas himself, however, was unwilling to fight, and persuaded his followers to stand down. Some four years later, his attitude changed: at the urging of a disaffected Khurasani officer, he and his partisans attempted a coup. The conspirators were captured and executed, and al-Abbas was imprisoned. Based on the scanty information we have about these events, it seems that "the rift between supporters of al-Mu'tasim and al-'Abbas was, in fact, one dividing an established, largely Khurasani elite from the largely Turkish military leadership gathered around the new caliph" (Gordon, 49). Evidently, al-Mu'tasim's investment in slave troops had paid off.

The sources contain several versions of what purports to be al-Ma'mun's last testament. In these accounts, his successor is identified as al-Mu'tasim. The dying caliph reportedly exhorted him to continue the Inquisition, to show kindness to the descendants of Ali, and to keep the welfare of his subjects uppermost in his mind. These are all likely things for him to have said. But the various versions of the speech seem suspiciously long and well polished, especially for someone who was, according to the same sources, delirious with fever. The descriptions of the scene at his deathbed are equally suspicious. This one, for example, seems to have been constructed to portray him as a pious and humble believer:

> Al-Ma'mun was taken out into the night and given a view of the tents and the troops, spread out in all their multitudes with the campfires blazing. He said, "O You whose kingdom shall not

> perish, have mercy on one whose kingdom is gone." He was then returned to his bed, where al-Mu'tasim had stationed someone to help him recite the last profession of faith. When the man began to recite, the physician Ibn Masawayh said: "Don't bother to shout! At this point he wouldn't know the difference between God and Mani [the prophet of the Manicheans]." At that, al-Ma'mun opened his eyes in grandeur and rage, with a furious dignity never before seen, and reached out to strike at Ibn Masawayh. He tried to address him, but could not. He cast his tearfilled eyes to the heavens, and his voice suddenly returned. He said: "O You who do not die, have mercy on one who is dying." The next moment he was gone (Mas'udi ¶ 2783).

Nearly all the sources agree that al-Ma'mun was buried in Tarsus, in a house belonging to one of his father's old retainers. The grave was apparently unmarked, in keeping with the early Abbasid practice of burying the caliphs as inconspicuously as possible. A late ninth-century source reports that a certain resident of Tarsus claimed to know where the caliph's grave was. An even later source reports that, after the Byzantine reconquest of Tarsus in 965, the Christians built a church over the site and placed lamps or candles on the tomb, having evidently mistaken it for that of a saint. Today, the congregational mosque of Tarsus contains a small gabled tomb labeled as that of al-Ma'mun. However, the tomb itself contains no inscription, and the identification seems to be recent. Nineteenth-century European and Ottoman accounts do not mention such a site, and the part of the mosque that contains the alleged tomb appears to have been constructed in the fourteenth century at the earliest.

THE INQUISITION AFTER AL-MA'MUN

After al-Ma'mun's death, the Inquisition remained in force. His immediate successor, al-Mu'tasim (r. 833–842), at first was

inclined to let the matter drop. Rather than interrogate Ibn Hanbal again, he decided to keep him imprisoned in Baghdad. But he was forced to reopen the issue when Ibn Hanbal's relatives pushed for his release. The caliph let his court theologians handle the interrogation. Turning a deaf ear to their rational arguments, Ibn Hanbal insisted again and again that they provide proof from the Qur'an and the Sunna. In the end he was flogged and released. There is some evidence that he capitulated under duress. But the general consensus, at least among the Arabic biographers partial to the Hadith-men, is that he defied his interrogators and was finally released when they realized the danger of making a martyr of him.

The next caliph, al-Wathiq (r. 842–847), renewed the Inquisition with a zeal worthy of al-Ma'mun. He is said to have made the createdness of the Qur'an part of the catechism taught in elementary schools. During an exchange of prisoners with the Byzantines, he reportedly refused to redeem Muslim captives who did not proclaim the createdness of the Qur'an. His program of interrogations, floggings, and imprisonments drove the proto-Sunnis to the brink of revolt. One dissident caught making preparations for an armed uprising was summarily executed by the caliph and joined the list of popular martyrs of the Inquisition. Ibn Hanbal remained faithful to his quietist principles and refused to give his blessing to any plot against the regime.

The Inquisition finally came to an end under al-Mutawakkil (r. 847–861), who had the good sense to realize that it was unsustainable. But he did more than merely revoke it: in a point-by-point reversal of all of al-Ma'mun's policies, he banned *kalam*-debate, promoted the study of Hadith, and demolished the tomb of Ali, which had served as a focus of Shiite piety. The creed of "Sunna and community" so roundly condemned by al-Ma'mun now became the official position of the Abbasid state. Needless to say, the advocates of *kalam* were

appalled. In a passage that can serve as an epitaph for the Inquisition, the Mu'tazili essayist al-Jahiz wrote: "Men of learning should fear the overthrow of their knowledge, just as kings fear the fall of their dynasties." The literalists, he says, "are powerful, and their guile is great; the common people are with them, and the rabble obey them … May God spare us in the end!" (Jahiz, *Rasa'il*, 3, 300).

The creed of the literalists was later given intellectual respectability by sympathetic *kalam*-debaters and eventually developed into what is today called Sunni Islam. Later Sunni chroniclers retroactively extended full approval to the Abbasid dynasty, with the comical result that many Muslims today consider al-Ma'mun to have been a Sunni caliph. To explain away his adoption of a heretical creed, some chroniclers declare that he must have fallen under the baleful influence of his Mu'tazili advisers. Such claims are exaggerated: some of his court scholars were Mu'tazilis but many were not; and there is no evidence that he was under the spell of the Mu'tazilis in particular.

In response to the rationalist attacks on their beliefs regarding the Qur'an, the Sunnis ended up making a positive argument that the revelation was uncreated. This belief now forms part of the standard Sunni catechism, although it is little remarked upon today. As for the belief in a created Qur'an, it survived as a tenet of the Mu'tazili school of theology and eventually became standard among Shiites. (It was not so in the ninth century; the claim made by some historians that al-Ma'mun adopted it because of his Shiite sympathies is therefore misleading.)

THE HISTORICAL SIGNIFICANCE OF THE INQUISITION

The Arabic word used by the chroniclers to refer to the episode of persecution set in motion by al-Ma'mun is *mihna*, which

means "test," "trial," or "tribulation." In this context, the term is usually translated by "inquisition," which is a reasonable equivalent. But the episode itself should not be thought of as comparable in scale or duration to the inquisitions carried out by the Church in Spain, Italy, and elsewhere. The Abbasid *mihna* lasted some eighteen years, from 833 to 851. The number of persons tried is unknown. Under al-Ma'mun, 45 *fuqaha'* and Hadith-scholars are named as having been questioned, although the actual number was greater. Of those who refused assent, one died during the journey from the Byzantine front back to Baghdad and another later died in prison. Under al-Mu'tasim, Ibn Hanbal was tried but later released. Under al-Wathiq, many scholars seem to have been imprisoned or flogged, and at least one is known to have been executed. Thus, the Abbasid *mihna* was not notorious for its cruelty (something which Muslims had come to expect from caliphs in any case). Rather, it was unsettling because of the identity of the persons against whom the cruelty had been directed. Even more unsettling was the fact that the caliphs had tried to enforce a doctrine that the majority of Muslims did not agree with and which had nothing to do – as far as most people could see – with the fundamental tenets of Islam. Even Bishr al-Marisi, the *kalam*-debater who had nearly been lynched for saying that the Qur'an was created, reportedly found al-Ma'mun's initiative shocking. "O God, curse all oppressors," he is supposed to have prayed, "including those who prefer their imaginations over Your Book and the practice of Your Prophet!" (Ibn Abi Tahir, 57).

In its nature, as well as in its scale and duration, the *mihna* is comparable not to the European inquisitions but to the Iconoclast controversy that was taking place at approximately the same time in the Byzantine Empire. Between 726 and 787 and again between 814 and 843, the emperors endorsed the position that pictoral representations of Christ were unfit objects of adoration. Clergymen, monks, and state officials

who refused to disavow the icons were stripped of their offices and in some cases executed. As in the Abbasid empire, the effort to impose an unpopular creed ultimately failed. The major difference between the two episodes is that the Byzantine emperors had always needed to come to terms with the power of the Church; the Iconoclast controversy was merely one test among many of the nature of their relationship. Among Muslims, on the other hand, the caliphs had always claimed exclusive and absolute religious authority; and it was the *mihna* that revealed this claim to be unfounded.

It has been argued that the most significant long-term result of the Abbasid Inquisition is what one might call, in terms borrowed from the Western tradition, the separation of church and state. By losing their battle with the Hadith-men, the Abbasids lost the right to offer, much less impose, binding opinions on matters of faith. Thereafter, they were imams only in the sense that they served as the heads of state. During the tenth century, they lost this privilege as well: after 935, the *de facto* rulers were the warlords who captured Baghdad and established dynasties of their own. This does not mean that the caliphs lost all importance. Even after they lost temporal power, they continued to be treated with superstitious reverence. But the scholars remained the only source of authoritative pronouncements on religion.

After the fall of Baghdad to the Mongols in 1258, the caliphate survived as an honorific title, first in Mamluk Egypt and then in the Ottoman Empire. When the office was abolished by the Turkish National Assembly in 1924, the short-lived protests in India and elsewhere could not hide the fact that Sunni Islam had long ago bypassed the need for a caliph (although there are some Muslims today who speak of reviving the office). When Sunni Muslims today speak of the imams, they mean not the caliphs but rather the *fuqaha'* who are credited with founding the various schools of legal interpretation – namely Abu Hanifa, Malik ibn Anas, al-Shafi'i, and

Ibn Hanbal. The Abbasid inquisition did not bring the scholars to power. But it does mark the last attempt on the part of a caliph to stop their ascent. Al-Ma'mun's failure to impose the doctrine of the created Qur'an made it evident that Islam, from that time onward, would be the Islam of the scholars rather than the caliphs.

EPILOGUE

On his deathbed, al-Ma'mun reportedly asked those gathered there to "stand together, all of you, and speak well of me if you can" (Tabari, 3, 1137). His Arabic biographers did not always honor his request. To be sure, all of them were impressed by his promotion of learning. Thanks to him, says one biographer, "people learned how to discuss and dispute, and each faction wrote books defending its point of view" (Mas'udi, ¶ 3453). But many authorities, particularly the later Sunni ones, found his penchant for speculation to have been a dangerous thing. While admitting that he was "one of the great Abbasids, with many virtues overall" (Dhahabi, 10, 272), they argue that his "interest in philosophy and the ancient sciences … led him to adopt the creed of the created Qur'an" which "compromised the community's religious mission with heretical innovation" (Suyuti, 489 and 837) and "left a legacy of calamity and disaster to the faith" (Dhahabi, 11, 236). For their part, the Shiite chroniclers, with some notable exceptions, think of him first and foremost as the conniving caliph responsible for murdering the eighth imam.

For modern historians, the most striking thing about al-Ma'mun's career is his attempt to transform the caliphate into the source of guidance he believed it should be. For nearly two centuries, the Muslim community had struggled with the question of legitimate authority. By al-Ma'mun's time, the Abbasids had managed to establish de facto legitimacy for themselves. But they had alienated the Alids and their Shiite partisans, and they had let religious scholars take over the task of telling people what God's revelation meant. After seizing

power from his brother, al-Ma'mun revived the idea that Alids and Abbasids alike were qualified to serve as imams. Then, toward the end of his career, he tried to exercise the rights that he believed himself to have by virtue of his position as imam of right guidance.

What the Sunni biographers occasionally forget in their indignation is that both of these initiatives failed. Indeed, each seems to have had precisely the opposite of its intended effect. The nomination of an Alid heir apparent failed to bring about a reconciliation between the Alids and the Abbasids. If anything, it only strengthened the pro-Hadith, anti-Shiite movement that would later become Sunnism. The same is true of the attempt to impose the dogma of the created Qur'an. Faced with the stubborn resistance of the Hadith-men and the resentment of the "common people," al-Ma'mun's successors abandoned the Inquisition and thus renounced any further pretensions to guide their subjects in matters of belief. Ironically, al-Ma'mun's greatest claim to fame as a maker of Islam may be his contribution to the development of Sunnism.

Besides hastening the growth of a creed he abhorred, al-Ma'mun also contributed to the political decline of the Abbasid caliphate. His rebellion against al-Amin led to a decade of anarchy during which the provinces of the empire began to govern themselves. Admittedly, al-Ma'mun managed to restore the power of central authority in the last years of his reign. But one of the measures he and his successor al-Mu'tasim adopted to achieve this – namely, the recruitment of slave troops from Central Asia – only made matters worse in the long run. The new troops depleted the budget, fought among themselves, and reduced the caliphs to figureheads. A century after al-Ma'mun's death, the Abbasid caliphate was reduced to a shadow of its former self. For people in the provinces, the decline of central authority was doubtless a good thing. From an imperial perspective, however, the later ninth century was a

disaster. Although no one person can be held responsible for a phenomenon as complex as the decline of an empire, al-Ma'mun certainly contributed to the process.

In modern Arab accounts, the "legacy of calamity and disaster" has been glossed over in favor of an idealized image of al-Ma'mun as a patron of the sciences. During the nineteenth-century revival of Arab learning, intellectuals who sought to reconcile faith and reason invoked al-Ma'mun's reign as proof that Islam could be hospitable to rational inquiry and technical progress. The Egyptian reformer al-Tahtawi (1801–1873), for example, urged his fellow Muslims to revive the glorious days when learning flourished in Islam under the patronage of the enlightened caliphs of Baghdad. Today, any nationalist account of "the golden age of Islam" is full of references to al-Ma'mun and the scientists whose work he promoted. There is no question that this idealization has a basis in fact: the development of algebra, the measurement of the earth, the drawing of a world map, and the other achievements of early ninth-century Arabic science are genuinely impressive. Equally impressive is the extent to which al-Ma'mun was personally involved in the intellectual ferment that was going on around him.

What tends to be overlooked, however, is that the caliph was hardly a liberal freethinker. To be sure, he was remarkably tolerant of many points of view. But he also felt that his position on certain critical issues was the only correct one. As far as he was concerned, any rational inquiry into human affairs necessarily led to an acknowledgement of his rights as caliph and imam. By the same token, disloyalty to him could only be the result of stupidity. Of all the statements made by or about him, the following – from a letter written on his behalf – most neatly summarizes his attitude: "Anyone who refrains from granting the caliphate all the glory it deserves suffers from a deep-seated lack of intelligence" (Arazi and El'ad, 2, 69). Most infuriating to him was the stubborn literalism of the Hadith-men, whose

"implied theology" (van Ess, 2, 723) left no room for him to exercise his self-proclaimed privilege of right guidance. In the end, his failure to impose his creed on them made it clear that the combined religious and political authority enjoyed by the Prophet could not be revived – at least, not by an Abbasid caliph.

BIBLIOGRAPHY OF WORKS CITED

Arazi and El'ad = Albert Arazi and 'Amikam El'ad, " 'L'Épître à l'armée': al-Ma'mun et la seconde da'wa." *Studia Islamica* 66 (1987), pp. 27–70; and 67 (1988), pp. 29–73.

Aristotle = Aristotle, *The "Art" of Rhetoric*. Tr. John Henry Freese. London: William Heinemann, 1926.

Aristutalis = Aristutalis, *al-Khitaba: al-tarjama al-'arabiyya al-ula*. Ed. 'Abd al-Rahman Badawi. Cairo: al-Nahda al-Misriyya, 1959.

Banu Musa = Banu Musa ibn Shakir, *Kitab al-hiyal*. Ed. Ahmad Yusuf al-Hasan et al. Aleppo: Ma'had al-Turath al-'Ilmi al-'Arabi, 1981.

Borges, Jorge Luis. "Averroes' Search." Tr. James E. Irby. In Borges, *Labyrinths*. Edited by Donald A. Yates and James E. Irby. New York: New Directions, 1962, pp. 148–55.

Cook = Michael Cook, *Muhammad*. Oxford and New York: Oxford UP, 1983.

Crone, " 'Abbasid Abna' " = Patricia Crone, " 'Abbasid Abna' and Sasanid Cavalrymen." *Journal of the Royal Asiatic Society*, Series 3, 8, 1 (1998), pp. 1–19.

Crone, *God's Rule* = Patricia Crone, *God's Rule: Government and Islam. Six Centuries of Medieval Islamic Political Thought*. New York: Columbia, 2004.

Dhahabi = Shams al-Din al-Dhahabi, *Siyar a'lam al-nubala'*. Vol. 10. Ed. Shu'ayb al-Arna'ut and Muhammad Nu'aym al-'Araqsusi. Vol 11. Ed. Salih al-Samr. Beirut: Mu'assasat al-Risala, 1302/1982.

El-Hibri = Tayeb El-Hibri, "The reign of the Abbasid caliph al-Ma'mun (811–833): The quest for power and the crisis of legitimacy." Dissertation, Columbia University, 1994.

Ess, Josef van. *Theologie und Gesellschaft im 2. und 3. Jahrhundert Hidschra. Eine Geschichte des religiösen Denkens im frühen Islam*. 6 vols. Berlin and New York: de Gruyter, 1991–97.

Gordon = Matthew S. Gordon, *The Breaking of a Thousand Swords. A History of the Turkish Military of Samarra (A.H. 200–275 / 815–889 C.E.)*. Albany: State University of New York Press, 2001.

Hanbal = Hanbal ibn Ishaq, *Dhikr mihnat al-imam Ahmad Ibn Hanbal*. Ed. Muhammad Naghsh. Cairo: Dar Nashr al-Thaqafa, 1398/1977.

Ibn Abi Tahir = Ibn Abi Tahir Tayfur, *Kitab Baghdad*. Ed. 'Izzat al-'Attar al-Husayni. Cairo: al-Khanji, 1368/1949; repr. 1415/1994.

Ibn Abi Usaybi'a = Ibn Abi Usaybi'a, *'Uyun al-anba' fi tabaqat al-atibba'*. Ed. Muhammad Basil 'Uyun al-Sud. Beirut: Dar al-Kutub al-Ilmiyya, 1419/1998.

Ibn Babawayh = Ibn Babawayh al-Qummi, *'Uyun akhbar al-Rida*. ed. Mahdi al-Husayni al-Lajavardi. Qumm: Dar al-'Ilm, 1377[1957–58].

Ibn al-'Imrani = Ibn al-'Imrani, *al-Inba' fi ta'rikh al-khulafa'*. Ed. Qasim al-Samarra'i. Leiden: Brill, 1973.

Ibn al-Nadim = Ibn al Nadim, *al-Fihrist*. Ed. Gustav Flügel et al. Leipzig: Vogel, 1871–72.

Idrisi = *Das Pyramidenbuch des Abu Ga'far al-Idrisi (st. 649/1251.) Eingeleitet und kritisch herausgegeben von Ulrich Haarmann.* Beiruter Texte und Studien, Band 38. Beirut: Franz Steiner, 1991.

Irbili = 'Ali b. 'Isa al-Irbili, *Kashf al-ghumma fi ma'rifat al-a'imma*. 3 vols. Ed. I. al-Miyanji. Tabriz: Kitabji-ye Haqiqat, 1381/1962.

Isfahani = Abu al-Faraj al-Isfahani, *Maqatil al-Talibiyyin*. Ed. Al-Sayyid Ahmad Saqr. Beirut: Dar al-Ma'rifa, 1978.

Jahiz, *Hayawan* = al-Jahiz, *Kitab al-Hayawan*. Ed. 'Abd al-Salam Harun. 8 vols. Cairo: al-Babi al-Halabi, 1966.

Jahiz, *Rasa'il* = *Rasa'il al-Jahiz*. Ed. 'Abd al-Salam Harun. Cairo: al-Khanji, 1384/1964–1399/1979.

Jahshiyari = al-Jahshiyari, *Kitab al-wuzara' wa l-kuttab*. Ed. Mustafa al-Saqqa, Ibrahim al-Abyari, and 'Abd al-Hafiz Shalabi. 2nd ed. Cairo: al-Babi al-Halabi, 1401/1980.

Kashshi = al-Kashshi, *Ikhtiyar ma'rifat al-rijal*. Ed. Hasan al-Mustafawi. Mashhad: Daneshgah-e Mashhad, 1348 shamsi/1969.

Kessler = Christel Kessler, " 'Abd al-Malik's Inscription in the Dome of the Rock: A Reconsideration." *Journal of the Royal Asiatic Society* 1 (1970), pp. 2–14.

Khatib = al-Khatib al-Baghdadi, *Ta'rikh Baghdad*. 14 vols. Maktabat al-Khanji, 1931. 24 vols. Ed. Mustafa 'Abd al-Qadir 'Ata. Beirut: Dar al-Kutub al-'Ilmiyya, 1417/1997.

Khuwarizmi = Muhammad b. Musa al-Khuwarizmi, *al-Jabr wa al-muqabala*. Ed. 'Ali Mustafa Musharrafa and Muhammad Mursi Ahmad. Cairo: Dar al-Kitab al-'Arabi, 1968.

Kindi = *Islamic Philosophy Theology and Science. Texts and Studies edited by H. Daiber and D. Pingree. Vol. XXIX: Oeuvres philosophiques et scientifiques d'al-Kindi. Vol. II: Métaphysique et cosmologie.* Ed. Roshdi Rashed and Jean Jolivet. Leiden: Brill, 1998.

Langermann = Y. Tzvi Langermann, "The Book of Bodies and Distances of Habash al-Hasib." *Centaurus* 1985 (28), pp. 108–128.

Madelung, "Origins" = Wilferd Madelung, "The origins of the controversy concerning the creation of the Koran." *Orientalia Hispanica sive studia F. M. Pareja octogenario dicata*. Ed. J. M. Barral. Vol 1:1. Leiden: Brill, 1974, pp. 504–525.

Madelung, "New Documents" = Wilferd Madelung, "New Documents Concerning al-Ma'mun, al-Fadl b. Sahl, and 'Ali al-Rida." *Studia arabica et islamica. Festschrift for Ihsan Abbas on his sixtieth birthday*. Ed. Wadad al-Qadi. Beirut: American University of Beirut, 1981, pp. 333–346.

Majlisi = Muhammad Baqir al-Majlisi, *Bihar al-anwar*. 110 vols. Tehran: al-Islamiyya, 1376/1956–1392/1972.

Ma'mun = *Diwan al-Amin wa l-Ma'mun*. Ed. Wadih al-Samad. Beirut: Dar Sadir, 1998.

Mas'udi = al-Mas'udi, *Muruj al-dhahab wa-ma'adin al-jawhar*. 7 vols. Ed. Charles Pellat. Beirut: al-Jami'a al-Lubnaniyya, 1965–79.

Melchert = Christopher Melchert, *The Formation of the Sunni Schools of Law, 9th–10th Centuries C.E.* Leiden: Brill, 1997.

Qifti = al-Qifti, *Ta'rikh al-hukama'*. Ed. Julius Lippert. Leipzig: Dieterich, 1903.

The Rule of Love (*Vilayat-e Eshgh*). Written and directed by Mehdi Fakhimzadeh. *Sharikat-e Soti wa-Tasviri-ye Sorush*, 1996–2000.

Sabi' = Muhammad ibn Hilal al-Sabi', *al-Hafawat al-nadira*. Ed. Salih al-Ashtar. Damascus: Majma' al-Lugha al-'Arabiyya, 1967.

Sezgin = Fuat Sezgin, *Geschichte des arabischen Schrifttums. Band X. Mathematische Geographie und Kartographie im Islam und ihr Fortleben im Abendland. Historische Darstellung. Teil 1.* Frankfurt: Institut für Geschichte der arabisch-islamischen Wissenschaften, 2000, pp. 73–149.

Soussi = M. Soussi, "Hisab al-ghubar." *Encyclopaedia of Islam, New Edition*. Leiden: Brill, 1954–2002. Vol. 3, pp. 468–69.

Steppat = Fritz Steppat, "From *'Ahd Ardasir* to al-Ma'mun: a Persian element in the policy of the *mihna*." *Studia arabica et islamica. Festschrift for Ihsan Abbas on his sixtieth birthday*. Ed. Wadad al-Qadi. Beirut: American University of Beirut, 1981, pp. 451–454.

Suyuti = Jalal al-Din al-Suyuti, *Ta'rikh al-khulafa'*. Ed. Muhyi al-Din 'Abd al-Hamid. Cairo: al-Sa'ada, 1371/1952.

Tabari = al-Tabari, *Ta'rikh al-rusul wa l-muluk*. 15 vols. Ed. M. J. de Goeje et al. Leiden: Brill, 1879–1901. 10 vols. Ed. Muhammad Abu al-Fadl Ibrahim. 3rd. ed. Cairo: Dar al-Ma'arif, 1979.

Tabari, tr. Fishbein = *The History of al-Tabari XXXI. The War Between Brothers*. Tr. Michael Fishbein. Albany: State University of New York Press, 1987.

'Utaridi = 'Aziz Allah al-'Utaridi. *Musnad al-Imam al-Rida*. 2 vols. Beirut: Dar al-Safwa, 1413/1993.

Ya'qubi = *Ta'rikh al-Ya'qubi*. 2 vols. Ed. M. Th. Houtsma. Leiden: Brill, 1883.

INDEX

Note: The prefix al- is ignored in alphabetization.

MAKERS *of the* MUSLIM WORLD

Series Editor: Patricia Crone
Institute for Advanced Study, Princeton

Among the over fifty titles in the series:

Ibn 'Arabi
William C. Chittick
Renowned expert William Chittick surveys the life and works of this legendary thinker.
ISBN: 1-85168-387-9

Shaykh Mufid
T. Bayhom-Daou
An assessment of the great Shi'ite scholar and theologian.
ISBN: 1-85168-383-6

Abu Nuwas
Philip Kennedy
A readable introduction to this celebrated 9th-century poet.
ISBN: 1-85168-360-7

'Abd al-Malik
Chase F. Robinson
The Umayyad Caliph and founder of the Dome of the Rock is captured in a concise and clear manner.
ISBN: 1-85168-361-5

Fazlallah Astarabadi and the Hurufis
Shahzad Bashir
Discusses the achievements of this Sufi thinker and founder of Gnostic Hurufism.
ISBN: 1-85168-385-2

al-Ma'mun
Michael Cooperson
An introduction to the controversial 9th-century Caliph and patron of the sciences.
ISBN: 1-85168-386-0

Ahmad Riza Khan
Usha Sanyal
On the founder of the 'Barelwi' movement in India in the late 19th/early 20th centuries.
ISBN: 1-85168-359-3

Amir Khusraw
Sunil Sharma
Surveys the life and work of the 14th-century Indian poet, courtier, musician, and Sufi.
ISBN: 1-85168-362-3

'Abd al-Rahman III
Maribel Fierro
Introduces the founder of the great Caliphate of Madinat al-Zahra at Cordova.
ISBN: 1-85168-384-4

el-Hajj Beshir Agha
Jane Hathaway
An examination of the longest serving Chief Harem Eunuch in the history of the Ottoman Empire.
ISBN: 1-85168-390-9

www.oneworld-publications.com