

CHAPTER 5

KNOWLEDGE

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The pleasure of the intellectual in his rational discernment, of the religious scholar in his knowledge, of the sage in his wisdom, and of the legal expert in his interpretive judgment is greater than the pleasure of the eater in his food, the drinker in his beverage, the walker in his stride, the acquirer in his gain, the player in his game, and the commander in his decree.

(Ibn Ḥazm, "Risāla fi mudāwāt al-nafs" 1:335)

In Ibn Ḥazm's enumeration of categories of knowledge and those who master them, knowledge is clearly a polysemous and multivalent phenomenon. Each area required its own terms and territories: the rational discernment (*tamyīz*) of the intellectual (*ʿāqil*), the tradition-based knowledge (*ʿilm*) of the religious textual scholar (*ʿālim*), the abstract wisdom (*ḥikma*) of the sage (*ḥakīm*), and the interpretive legal judgment (*ijtihād*) of the jurist (*mujtahid*). Ibn Ḥazm's categories warn us against presuming too narrow a conception of "knowledge" in Andalusian culture. Ibn Ḥazm also assigns relative priority to the divisions of knowledge, valorizing intellectual over physical pleasure in consonance with much Mediterranean ethical discourse since the age of Plato and Aristotle (cf., for example, Aristotle *Ethics* 1.1729–42).

THE DIVISIONS OF KNOWLEDGE

The pursuit of knowledge is a structured endeavor, and each community (Muslim, Jewish, Christian) developed its own taxonomies. Such organizational formats are not constant; they carry within themselves individual histories, fault lines, and courses of development. Nevertheless, Ibn Ḥazm, who lived around the midpoint of Andalusian history and who devoted a treatise to "The Division of the Sciences" (*Marātib al-ʿulūm*), can offer a good introduction.¹

Ibn Ḥazm begins his survey with a discussion of elementary education. Parents should entrust the child to a teacher who will instruct him in reading

and writing until the child can profit from "any book that should fall into his hand in his mother language" (4:66, trans. 194). Memorization of the Qur'an is recommended for its effect on linguistic fluency, stylistic eloquence, and good morals. The student should study the basics of grammar, lexicography, and poetry, followed first by elementary mathematics – arithmetic, geometry, and basic astronomical calculation – and then by the introductory study of logic and the natural sciences, such as knowledge of "atmospheric conditions, composition of the elements, zoology, botany, and mineralogy," and anatomy (4:72, trans. 198–99). Finally, the student should become proficient in history.

Ibn Ḥazm then considers advanced study of the same fields:

The prevailing sciences today are divided into seven, and are the same for all people in all places and at all times. They are: (1) the religious law of every nation, which is always there, since every nation believes in something, either affirming or denying it; (2) the science of history of a nation; (3) the science of language of a nation. Nations differ from one another by virtue of these three sciences. As for the remaining four sciences, they are common to all nations and consist of: (4) philosophy, which is the knowledge of things as they are and according to their definitions from the highest genera to particulars; it also includes the knowledge of metaphysics; (5) astronomy; (6) numbers; (7) medicine, which deals with the body.

(4:78, trans. 204, slightly amended)²

For Ibn Ḥazm, Islamic religious law (sharia) consists of (1) knowledge of the Qur'an, including its seven readings (*qira'āt*) and commentary (*tafsīr*); (2) the study of prophetic tradition (hadith), in regard to both its texts and their transmitters; and (3) jurisprudence (fiqh) and theology (kalam). Language consists of the above-mentioned fields of grammar and lexicography. Approaches to history vary according to whether they (1) focus on the history of individual dynasties, (2) offer general annalistic accounts, (3) treat specific areas, whether cities or countries, (4) deal with the lives of classes of individuals arranged in biographical dictionaries, or (5) employ a general, mixed arrangement. Included in the study of history is the science of genealogy (4:79, trans. 204).

After touching on the philosophical and natural sciences, Ibn Ḥazm discusses the advanced study of poetry, rhetoric, and dream interpretation. He finally observes that although all the previously described sciences are those usually designated as "knowledge," any area of specialization – "commerce, tailoring, weaving, navigation, agriculture, forestry, horticulture, construction, and other crafts" – can constitute a type of knowledge (4:81, trans. 206).

In addition to suggesting how fields of knowledge interact, Ibn Ḥazm, ever the theologian, ranks them. Although admitting that many sciences retain practical value, he remarks on the limited nature of such practical value,

adding that "an incurable malady, a grave censure, and a ruinous loss will be the lot of one who acquires the loftiest sciences and spends his knowledge for the purpose of acquiring wealth and not for the purpose for which they were intended" (4:64, trans. 192–93; cf. 4:84–85, trans. 209–10). The primary reason to pursue knowledge is to achieve success in the afterlife, which one gains through dedicated cultivation of religious sciences.

Ibn Ḥazm also warns against the ignorance of the semieducated who believe that a little knowledge qualifies them as experts. Similarly, he notes the fallacy shared by specialists in the Arabic sciences and in the rational sciences, that is, that they deem their areas of study to be superior to other branches of investigation and sufficient unto themselves. Unable to disprove the efficacy of astrology, Ibn Ḥazm still distrusts it deeply. Nevertheless, his discussion of astrology probably testifies to its contemporary popularity.

Ibn Ḥazm's treatise on the classification of knowledge is only one of several that appeared in the fourth/tenth and fifth/eleventh centuries in the Islamic world. Their congruence suggests that by this time a degree of consensus on this subject had evolved. The durability of this consensus is confirmed by comparison with classification offered later by Ibn Khaldūn (d. 808/1406), whose theory of civilization (*'umrān*) was heavily influenced by evidence drawn from Andalusi and Maghribi history.

Ibn Khaldūn divides the sciences into two main groups: "one that is natural to man and to which he is guided by his own ability to think, and a traditional kind that he learns from those who invented it" (2:385, trans. 2:436). The first consists of the intellectual sciences (philosophy and the natural sciences); the second of sciences based on religious law, where the place of reason is to elaborate the details of already accepted religious premises. Ibn Khaldūn's subdivision thereafter accords in general structure with that offered by Ibn Ḥazm. To the religious sciences listed by Ibn Ḥazm, he adds mysticism (Sufism), which was more developed in his day. Like Ibn Ḥazm, Ibn Khaldūn respects dream interpretation for its kinship to religious prophecy. He then enumerates the intellectual sciences, followed by the occult sciences: sorcery, talismans, letter magic, alchemy, and astrology. Ibn Khaldūn entertains even deeper reservations about alchemy and astrology than Ibn Ḥazm. He admits the theoretical possibility of the manipulation of the supernatural, but he distrusts its practical application, warning against trusting practitioners of letter magic (*al-sīmiyā'*, onomatopoeia), for example (3:146, trans. 3:182). Finally, he warns against the potentially corrupting effects of philosophy on those without prior knowledge of Muslim religious sciences (3:220, trans. 3:257–58).

As useful as they are, the divisions of knowledge by thinkers such as Ibn

Ḥazm and Ibn Khaldūn pay relatively little attention to the social contexts and modes of transmission of knowledge. To incorporate such perspectives, this essay begins with a summary discussion of modes of transmission, both public and private, and then constructs a historical and socially contextualized overview of the accomplishments of Andalusians, within the realm of three categories of knowledge: the sacred (religious), the profane (political), and the rationalist (scientific and philosophical). In concrete historical contexts, of course, participants in these spheres often interacted and interlapped, as witnessed by a figure such as Ibn Rusd (d. 595/1198), who was a well-known qadi, a sometime adviser to his Almoravid ruler, and a noted philosopher and physician. Despite such practical overlap, considering these spheres of knowledge separately has the organizational advantage of clarifying general demarcations of intellectual pursuit.

ACQUISITION AND TRANSMISSION OF KNOWLEDGE

For Muslims in al-Andalus, education consisted of three stages: elementary, advanced, and specialized. The first centered around the school (*maktab* or *kuttāb*), the second around study in the mosque, and the third around lengthy apprenticeships (*ṣuḥba*, *mulāzama*) with scholars in one's chosen field, apprenticeships that frequently entailed extensive travel.

The general structure of premodern Islamic education was private and personal. Individuals from one generation transmitted knowledge to those of the next on an oral, interactive basis. As a result, the particular geographical or institutional venue of instruction mattered much less than it did in the university system that developed in Christian Europe. Although famous centers of education existed in Córdoba, al-Qayrawan, Mecca and Medina, Nishapur and Bukhara, and later in Cairo, Fez, and Tunis, these cities were more renowned for their concentration of well-regarded scholars than for the presence of institutions famous in themselves (*'Īsā* 211–16; Berkey 21–43).

Elementary education was the responsibility of parents. Wealthy parents hired tutors or occasionally took charge of their children's education themselves. Most parents, however, sent their children to private elementary schools, diverse in size, quality, and cost. Children began school usually between the ages of five and eight, and studied reading, writing, the Qur'an, and basic levels of language, literature, history, the religious sciences, mathematics, and the sciences. Those taking the full course of elementary study completed it between the ages of thirteen and fifteen, at which time they entered their chosen professions or undertook advanced training (*'Īsā* 216–20).

The private nature of education limited it to those who could afford it.

Consequently, more children received education in times and places of prosperity than in areas of poverty or eras of economic distress and dislocation. Venue also varied. Some schoolmasters ran schools, others taught in their homes, while wealthy families hired tutors. There is little explicit reference to girls attending schools, but educated women, perhaps taught mainly in their parents' homes, are mentioned ('Īsā 220–23, 261–62).

During the second stage, advanced education, venue depended on field of study. The most common site for study of the religious sciences or related fields, such as early Arabic literature and history, was the mosque, while teachers of medicine and science or of such profane arts as adab would train students privately in their houses or on the job. In the mosque, instruction was specialized; students attended classes with masters in individual subjects, with each teacher guiding them through the study of books essential to their respective fields. Progress proceeded book by book; after mastering a book or set of books in a field, students received a certificate (*ijāza*) in which the teacher attested to their mastery of the book and to their competency in teaching it to others. Thereafter, a student moved to the next level, either with the same teacher or with one better qualified for a higher level of study. In this way, students both completed their advanced general education and began to specialize in one or more areas ('Īsā 263–81; Makdisi, *Rise of Colleges* 10–27).

Remuneration was essentially private; students paid individual fees to their teachers. Occasionally, a scholar received a royal or government stipend or was provided with a salary through the mosque in which he taught, but such instances were not the rule, especially early in Andalusī history. Some teachers helped support themselves by taking supplemental employment, becoming the muezzin or imam of a mosque, for example. Gradually, there developed the tradition of dedicating religious bequests (*hubūs* or *waqf*) to mosques, which could provide regular stipends for faculty and advanced students, increasing the level of institutional support. In al-Andalus, most such endowments were donated to mosques, since, unlike other parts of the Islamic world (including the Maghrib), the advanced college (or *madrassa*) remained a minor institution, with only that founded in Granada in the mid-fourteenth century achieving any note. A perplexed al-Maqqarī (d. 1041/1632) remarked that

Notwithstanding the proficiency of the Andalusis in all the departments of science, we are informed that there were no colleges in that country where the youth might be educated and inspired with the love of science, as is the case in the East; there seem to have been instead several professorships attached to every mosque, and numerous professors who delivered lectures on various subjects for a fixed salary which they received; and had it not been so, science could not have flourished as it did.

(1:208, trans. 1:140–41)

Those who wished to specialize in nonreligious studies sought their teachers from among recognized specialists. Those desiring to enter government bureaucracy became apprentices in chancelleries or other governmental departments, where they received on-the-job training. Those interested in medicine or the sciences attached themselves to one or more masters who guided them through the theory and practice of their disciplines. Often fields became family specialties, so that sons of courtiers and officials entered governmental administration, and children of physicians, such as those of the famed Banū Zuhr, were trained by their fathers and even replaced them in their positions when they retired.

With mysticism, instruction also assumed a master–student format, but progress was measured in spiritual development as well as mastery of texts. In the context of this personal system, the emergence of such specialized physical institutions as the Sufi convent (*ribāʿ*) in the fourth/tenth and fifth/eleventh centuries or the religious college (*madrassa*) in the mid-eighth/fourteenth century represented only avenues for providing institutional support – scholarships and stipends for students and salaries and benefits for teachers – for what remained an essentially private and decentralized system of education.

For the final stage of specialized study, students often traveled to centers of learning in North Africa and the East. Such journeys were essential for maintaining the quality and prestige of regional centers of education. Studying with and comparing one's level of education and expertise with masters and colleagues in other areas of the Islamic world boosted one's own career and validated the quality of education received in al-Andalus. For the religious scholar, Mecca and Medina were central. For the profane scholar, first Baghdad and then post-Fatimid Cairo were equally important. By this time, the student had also become a qualified teacher and could support himself by transmitting the learning he had acquired in al-Andalus.

Oral transmission was essential to the structure of Islamic education and is exemplified by the model of hadith. In transmitting the accepted corpus of prophetic tradition, oral communication was more highly valued than studying written hadith collections. Written versions existed from the third/ninth century, but specialists in hadith regarded them as secondary aids to the more valid form of knowledge learned and memorized through oral instruction. In this way, specialists in hadith transmitted the prophet Muhammad's very words from one generation to the next without dilution or alteration. The voice of the Prophet echoed through the centuries to reach each new generation of Muslims with a force that replicated, to the extent possible, its original verbal authenticity and spiritual force (Goldziher 2:164–66; Berkey 23–27; Makdisi, *Rise of Colleges* 99–105; Nasr 57–58).

Similar models existed in the other traditional sciences, whether linguistic, literary, or religious. Muslim biographical dictionaries devoted to the lives of scholars focus on two areas: (1) the place the individual holds in this chain of transmission, that is, the identities of his teachers and his students, and (2) the rank he holds in mastery of his fields of specialization. By knowing the scholar's teachers and professional reputation, readers can evaluate his trustworthiness as a transmitter. Attestation of competency was demonstrated by the conferral of an *ijāza* testifying that on the ideal, and often enough on the practical, level the scholar had committed the book studied to memory, and thus truly knew it.

This expectation of personal oral transmission explains the importance of travel. When scholars returned to al-Andalus after study in the East, or when prominent scholars from the East traveled to settle and teach in al-Andalus, their arrival signified the importation of new or renewed authentic lines of scholarly transmission extending back to the founders and acknowledged masters of each field. A specialist in grammar could trace his pedagogic lineage back to such masters as al-Sībawayhī or al-Kisāʿī; an expert of prosody or lexicography to al-Khalīl ibn Aḥmad; a scholar in early Arabic literature to al-Aṣmaʿī and Abū ʿUbayda – all early masters from the second/eighth and third/ninth centuries. Students traveling to obtain *ijāzas* were in fact accumulating scholarly pedigrees.

Despite ideals of oral transmission, learned individuals did value books. Some scholars accumulated extensive libraries, and anecdotes attest that wealthy individuals valued books as items of social prestige. Large libraries were crucial for the development or survival of certain fields. The bibliophile caliph al-Ḥakam II developed a library that reputedly encompassed more than four hundred thousand volumes. This influx of books provided a basis for the development of philosophy and the sciences in al-Andalus. Even after the library was sold off, looted, and dispersed in the postcalifate period, sufficient volumes survived to ensure the continued study and teaching of the rational sciences (Ṣāʿid al-Andalusī 162–65, trans. 61–62). Libraries and book-sellers were also places where scholars and bibliophiles met informally to discuss subjects of mutual interest (Makdisi, *Rise of Colleges* 24–27; Makdisi, *Rise of Humanism* 54–57).

Learned interchange also took place in assemblies and soirees. These were regular meetings held in mosques or in private homes, sponsored by wealthy intellectuals or members of the court. Although these groups might consist of friendly study groups and seminars in which social interaction was an important element, it was not unusual for professional competitiveness to infuse into them a strong degree of disputational asperity (ʿIsā 349–52; Makdisi, *Rise of Colleges* 129–47; Makdisi, *Rise of Humanism* 210–12).

Because scholars earned their livelihood from fees paid them by their students, social affluence played an important role in education. If the surplus social wealth that underpinned education decreased, so did the number of students and subsequently the number of teachers and scholars. It took decades for Andalusī society to establish the network of flourishing cities necessary to accumulate this wealth. Once achieved, however, the important cities and their relative proximity to one another provided a base to support a rich intellectual and cultural tradition, even in the face of the political fractionalism and tumult of the Taifa, Almoravid, and Almohad periods.

The loss of Muslim political control to Christian states, however, ultimately undercut the economic and social foundations of centers of learning outside Granada. Even in Granada, where a high level of culture was maintained, the small size of the Nasrid territories could not provide a base broad enough for many new intellectual endeavors; the center of gravity for Muslim education moved to North Africa, while the focus of Jewish and Christian education moved to cultural centers in Christian Europe.

HISTORICAL OVERVIEW OF ACHIEVEMENTS

The first period (92/711–350/961)

The arrival in 138/756 of the Umayyad prince ʿAbd al-Raḥmān I ibn Muʿāwiya to al-Andalus, after four decades of political instability, fostered a desire for political unity. Although this desire often remained more ideal than reality, during the ensuing century and a half, it nonetheless promoted the flow of intellectual ties with the East and increased the cultural and political prestige of the pursuit of knowledge. The creation of the caliphal state in 316/929 provided a century of relative political stability that ensured a harmonious and nurturing environment for the pursuit of knowledge and laid the foundation for the period of cultural efflorescence that followed.

Sacred knowledge

The production of religious knowledge in the early centuries of Andalusī history is closely connected with the establishment of independent political rule under the Umayyad dynasty. During the first forty years of Muslim rule, the Umayyad caliphs of Damascus appointed a series of governors who thereafter appointed judges or other religious authorities. During this period there was apparently neither desire nor need to create a distinctly Andalusī policy of religious practice or legal doctrine. The most prominent legal *madhhab* was that of al-Auzāʿī (d. 157/774), the imam of the school of jurisprudence followed in Damascus at the time. Al-Auzāʿī based his teachings on the orally

transmitted traditions of the Prophet and his companions, relying as little as possible on personal legal judgment (*al-ra'y*).

With the establishment in al-Andalus of an independent Umayyad polity, however, its princes saw an advantage in adopting a *madhhab* untainted by the political failure of the collapse of the Umayyad dynasty in the East and yet distinct from the Hanafi school favored by the new Abbasid regime. They selected the Medina-based *madhhab* established by Mālik ibn Anas (d. 179/796), who considered the customary practice of Medina as the normative foundation for legal practice. As Ibn Khaldūn states:

Mālik was of the opinion that by virtue of their religion and traditionalism, the Medinese always necessarily followed each preceding generation of Medinese, in respect to what they cared to do or not. The (process would have gone back) to the generation that was in contact with the actions of the Prophet, and they would have learned from him (what to do and not to do). In (Mālik's) opinion, the practice of the Medinese, thus, is the basic legal evidence. (3:5, trans. 3:7)

According to al-Maqqarī, sources provide slightly varying explanations for this change of *madhhab*. He prefers the explanation that several Andalusī doctors encountered Imam Mālik in Medina, heard his doctrines from his own mouth, and began to spread them. When al-Ḥakam I heard of these ideas, he held several conferences with their exponents, then ordered the establishment of the *madhhab* of Mālik ibn Anas throughout his dominions (4:217, trans. 1:113, slightly modified).³

Al-Maqqarī's account sheds light on the interaction between the professional aspirations of the ulama and exigencies of state politics. Those ulama who advocated the Maliki *madhhab* undertook the burden of traveling to Mecca and Medina for the purposes of pilgrimage and study, and once there they were sufficiently astute to recognize the advantages of becoming Mālik's disciples. They were attracted enough to his doctrines to work to spread them in distant al-Andalus, yet they no doubt understood the extent to which their being his students and thus promoting the religious authority that stemmed from their direct personal and scholarly links with the imam would enhance their own prestige among their colleagues on their return. This process had already begun in the reign of Hishām I, when returnees from the East, such as 'Abd al-Rahmān Shabṭūn, known as the Faqih of al-Andalus, propagated Mālik's opinions (2:255, trans. 1:100–101).

Similarly, al-Ḥakam I was intelligent enough to recognize the advantage of allying himself with this energetic group of ulama growing in prestige and number, and adopting a legal school directly connected with the traditionalist, pietist, and latently anti-Abbasid tendencies of Medina that Mālik's school represented. Hence, the desire for religious authenticity and authority,

professional careerism, and the interests of politics intermeshed in a manner that was to establish the uncontested authority of the Maliki school for the remainder of Andalusī (and Maghribī) history (cf. 'Īsā 82–88). Among the many prominent disciples of Mālik at the courts of al-Ḥakam I and 'Abd al-Rahmān II were Yaḥyā ibn Yaḥyā al-Laythī, Ibn Ḥabīb, author of the authoritative Maliki textbook *Kitāb al-wāḍiḥa* (Book of Clarification), whose student al-'Uṭbī wrote another standard textbook, *al-Mustakbraja* (The Supplement), i.e., *al-Wāḍiḥa* with additional *isnāds* ('Īsā 83; Ibn Khaldūn 3:10, trans. 3:14).

The alliance between al-Ḥakam I and the newly elevated party of Maliki jurists did not prove to be completely harmonious. In 202/818, a group of the *fuqahā'* participated in a failed revolt against the prince. The ruler punished the leaders and exiled thousands of Cordoban families from al-Andalus; nevertheless, he forgave several religious scholars (such as Yaḥyā ibn Yaḥyā and Ṭalūt ibn 'Abd al-Jabbār al-Ma'āfarī) who had rebelled and, in the process, taught the Maliki ulama a lesson about the relative power of political and religious authority that they never forgot. Despite this brief rupture, the alliance between the court and the Maliki ulama established both the dominance of this *madhhab* and the religious scholars who led it. Ibn Ḥazm's discussion of Yaḥyā ibn Yaḥyā illustrates how this group of Maliki *fuqahā'* extended their influence:

Having gained the favour of the Sultan, who approved of his doctrines, [Yaḥyā] was consulted upon every occasion; and no qadī was appointed without his consent, with this singularity, that Yaḥyā himself would never accept office; so that in a very short time the administration of justice was completely in the hands of the friends and disciples of Yaḥyā, or those who, like him, professed the *madhhab* of Mālik. Man being naturally inclined to improve his position in this world, when the students of law perceived that there was no other way of obtaining place than conforming with the doctrines of Yaḥyā, they unanimously adopted his innovations, and in this manner was the rite of al-Auzā'ī rejected, and that of Mālik ibn Anas introduced into this country.

(al-Maqqarī 2:222, trans. 2:123–24)

Yaḥyā's descendants, the Banū Yaḥyā, continued to live in Córdoba, where they remained numerous and prominent; thus were scholarly dynasties formed (cf. Makkī 128–32, 163–67).

Early Andalusī Malikis relied on Mālik's legal work, *al-Muwaṭṭa'* (The Level Path), and their personal scholarly tradition of interpreting it. Yet as Dominique Urvoy points out, the use of hadith, the basis of Mālik's approach, was neglected in favor of special rulings (*furū'*) worked out by the first successors of the master and "the idea of submission (*taqlīd*) to the authority of the competent man capable of 'personal effort' (*ijtihād*) was blindly and mechanically repeated, whereas the whole idea of *ijtihād* was

proscribed." Indeed, devotional literature (*manāqib*) concerning Mālik overshadowed his actual teaching ("‘Ulama'" 853; cf. Fierro, "Heresy" 896–97).

Maliki ulama continued to resist the intrusion of other legal schools (Shafi'i or Zahiri) or theological movements (such as Mutazilism or Shiism), while incorporating those innovations (reliance on *‘ilm al-ḥadīth*, early Sufi asceticism) they could not resist. Here again, the attitude of the individual ruler could play a central role. Hence under Muḥammad I the dominance of traditional Andalusī Malikism was loosened and new ideas arose with the return from the East of scholars like Baqī ibn Makhḥad (d. 276/889) and Muḥammad ibn Waḍḍāḥ (d. 287/900).

Both had traveled widely. Ibn Makhḥad reportedly had studied with 284 scholars in cities such as Mecca, Medina, Cairo, Damascus, Baghdad, Kufa, and Basra. Both discovered that the East was several generations into the legal revolution introduced by al-Shafii (d. 204/820), who had laid the foundations for a new juridical methodology that, among other things, explicitly promoted the authority of prophetic hadith in legal judgments. On their return both espoused a more formal reliance on hadith. As a result, Ibn Makhḥad, the author of an esteemed *tafsīr* and known for his piety, found himself charged with heresy by Cordoban ulama opposed to the organized use of hadith in Andalusī fiqh – even though he was teaching the hadith collection (*muṣannaf*) of a fellow Maliki scholar (albeit an Eastern one), Ibn Abī Shayba. Only the personal intervention of Muḥammad I saved him from execution (Fierro, "Introduction" esp. 77–83).

The Andalusī ulama grudgingly came to accept the formal use of hadith in legal decisions. In fact, Qāsim ibn Aṣḥab, student of both Ibn Makhḥad and Ibn Waḍḍāḥ and the author of major hadith works, became the most prominent faqih of ‘Abd al-Raḥmān III’s reign. In general, however, the ulama were successful in suppressing larger religious tendencies of which they disapproved. Despite the presence of individual exponents of Shafiiism and Zahirism, as well as of Shiism or Mutazilism, proponents of these schools could not gain enough followers to establish an institutional base. Even as forceful a personality and prominent a scholar as Ibn Ḥazm left no permanent school to carry on his Zahiri teachings (cf. Makkī 140–49).

Only in the realm of Islamic mysticism (Sufism) were *fuqahā’* eventually to give ground. Yet there is little evidence for any organized mystical activity during this first period. One possible example involves Ibn Masarra (d. 319/931). Ibn Masarra was born in Córdoba and studied the religious sciences, especially hadith, with his father, ‘Abd Allāh, and with Ibn Waḍḍāḥ, who, like Ibn Makhḥad, was celebrated for his piety. On returning from study in the East, Ibn Masarra attracted a small following, with whom he eventually moved to a retreat in the mountains outside Córdoba. The nature of Ibn

Masarra’s ideas has been a matter of dispute; they appear to be a combination of asceticism and Mutazilism spiced with doses of hermeticism and esoteric (*bāṭinī*) thought. His few followers survived his death and suffered some persecution, while his writings were burned by the ulama in 350/961. His influence on the history of Sufi thought in al-Andalus appears to have been relatively minor.

Profane knowledge

The court was the center of profane knowledge, which during this period was characterized more by a reception of ideas, genres, and fashions from the East than by the creation of an outstanding body of indigenous writings. Nevertheless, the importance of this period of initial intellectual investment should not be underestimated, since by the end of this period, the cultural environment of al-Andalus matured to the point where it produced a remarkable burst of creative literary activity.

Being a successful member of the court elite required sharp intelligence, personal charm, wit and charisma, good political instincts, and a fair measure of luck. A courtier also need fluency in classical Arabic for purposes of sophisticated and cultivated conversation and the delivery of formal orations, a refined and elegant prose style for compositions and epistles, and ready access to a store of cultural knowledge based on the body of literary traditions and cultural norms that came to be termed *adab*, a realm of practical knowledge that Ibn Khaldūn defined as "expert knowledge of the poetry and history of the Arabs as well as the possession of some knowledge regarding every science" – including, one might add, the sciences of good manners, elegant deportment, polite behavior, and witty conversation (3:295, trans. 3:340).

Initially, this body of knowledge was an integral part of Arab tribal tradition that youths learned from their elders. With the passage of time, Arab elites living in metropolitan areas together with highly cultured non-Arabs began to lose touch with the tribal customs of their forefathers. In reaction to this process, urban-based scholars and philologists undertook to collect, review, and rework pre-Islamic Arab traditions. Scholars and writers also began to appropriate areas of pre-Islamic Persian and Hellenistic literary and intellectual traditions. By the end of the third/ninth century, these cultural strains were united in a new Islamic synthesis of interrelated fields of knowledge that encompassed and combined such genres as poetry, belles lettres, grammar, genealogy, history, biography, proverbs, ethics, wisdom and advice, and examples of behavior recognized as models worthy of emulation. These bodies of knowledge and remembered experiences came to constitute both the particular materials for individual specializations as well as the larger base of cultural capital upon which writers of *adab* drew. *Adab* consisted therefore

of theory and practice: funds of knowledge and the wise and sophisticated behavior that mastery of such should produce. The models for such behavior were ideally the rulers themselves. ‘Abd al-Raḥmān I (d. 172/788), for example, was described by the historian Ibn Ḥayyān as kind-hearted, disposed to mercy, eloquent, endowed with quick perception, slow in his determinations, but constant and persevering in carrying them into effect, exempt from weakness, prompt and active. In addition,

He would never lie in repose or abandon himself to indulgence; he never entrusted the affairs of the government to any one, but administered them himself, yet he never failed to consult, on such difficult cases as occurred, with people of wisdom and experience; he was a brave and intrepid warrior, always the first in the field; he was terrible in his anger, and could bear no opposition to his will; he could speak with much fluency and elegance; he was likewise a good poet, and composed verses extempore; he was, in short, a beneficent, generous, and munificent prince.

(al-Maqqarī 4:37, trans. 2:87)

Given the proximity of the eastern lands to the Arabian Peninsula with its ready access to Bedouin traditions as well as to indigenous Persian and Hellenistic cultures, it is not surprising that inhabitants of these areas initially dominated the creation of this cultural synthesis. Those Andalusī wishing to improve their knowledge of profane Islamic and Arab culture naturally looked to the East. Some traveled to study with prominent Eastern scholars. Suwwār ibn Ṭārik al-Qurṭubī, for example, traveled to Basra, where he met al-Aṣma‘ī and other philologists and then returned to be appointed tutor to the sons of al-Ḥakam I. Alternatively, Eastern experts who ventured west in search of employment were welcomed with open arms.

Two such immigrants attained special fame: the musician Ziryāb, and the philologist-*adīb* Ismā‘īl al-Qālī. Ziryāb arrived in al-Andalus in 206/821. ‘Abd al-Raḥmān II, newly ascended to the throne, welcomed the musician. Ziryāb’s Eastern styles of music took the court by storm and continued to be taught and propagated by his many sons. Ziryāb also provided a model of what a good courtier should know and how he should act. ‘Abd al-Raḥmān took him as a boon companion, drinking with him and allowing him to “sit by his side, as if he were an equal” (al-Maqqarī 4:122, trans. 2:118). Nor did Ziryāb attain the status of royal favorite on the basis of musical genius alone.

He was like learned in astronomy, in geography or the division of the earth into seven climates. . . . Ziryāb, moreover, was gifted with so much penetration and wit; he had so deep an acquaintance with the various branches of polite literature; he possessed in so eminent a degree the charms of conversation, and the talents requisite to entertain an audience; he could repeat such a number of entertaining stories; he was acute and ingenious in guessing at the wants of his royal master – that there never was either

before or after him a man of his profession who was more generally beloved and admired. Kings and great people took him for a pattern of manners and education, and his name became forever celebrated among the inhabitants of al-Andalus.

(al-Maqqarī 4:124, trans. 2:120, slightly modified)⁴

Ziryāb’s ascendancy was challenged by other courtiers, such as al-Jayyānī, known as al-Ghazāl (the gazelle) for his handsomeness, whom the historian Ibn Ḥayyān calls “the sage, poet, and polymath (*al-‘arrāf*) of al-Andalus” (al-Maqqarī 3:20, trans. 1:116). Al-Ghazāl lived to be ninety-four years old and served under five rulers, from ‘Abd al-Raḥmān I to Muḥammad I. He was renowned for his poetry (‘Abd al-Raḥmān II was compelled to forbid him from lampooning Ziryāb in his verse) and composed a verse history of al-Andalus. He was also valued as a diplomat and was dispatched on important legations to destinations as diverse as the Norsemen and the Byzantine court.

A cultural epiphany comparable to the arrival of Ziryāb occurred with al-Qālī’s arrival in 330/941 during the reign of ‘Abd al-Raḥmān III. Al-Qālī was famed for his knowledge of ancient Arabic poetry, language, and lore, for which his *al-Amālī* (Dictations) remains a primary source to this day. He also composed commentaries on collections of pre-Islamic poems and a well-known dictionary. He brought his large library with him, but equally important, he personified the instructional lineages of his masters in the East, having studied with many Eastern teachers, including Ibn Durayd, a student of al-Aṣma‘ī and acknowledged leader of the Basran school of philologists. Al-Qālī’s arrival in al-Andalus brought both his vast personal expertise and prominent Eastern academic lineages that he thereafter transmitted to his own students.

This point explains the veneration in which al-Qālī was held as compared to his predecessor, Ibn ‘Abd Rabbih (d. 328/940), court poet to Muḥammad I and ‘Abd al-Raḥmān III, but best known for his large adab encyclopedia *al-‘Iqd al-farīd* (The Unique Necklace). This work is divided into twenty-five books organized according to topic, beginning with government, war, and generous men, and ending with natural history, food and drink, and witty anecdotes, jokes, and riddles – encompassing basic cultural knowledge about which well-educated people should be acquainted. This fund of knowledge, all of which concerns matters of the East, was obtained secondhand, since Ibn ‘Abd Rabbih himself never traveled in search of knowledge. Hence, important as the *‘Iqd* is for the study of adab, neither it nor its author enjoyed the prestige and sense of authenticity that al-Qālī and his *Amālī* attained among Andalusis.

By the end of his reign, ‘Abd al-Raḥmān III’s court in Córdoba was a dazzling center of sophisticated culture in the world. Andalusī profane culture had attained a state where it had absorbed and integrated the traditions of the

East, and its indigenous scholarly and literary traditions were sufficiently mature that in the following centuries scholars and writers of al-Andalus produced cultural landmarks in all fields of knowledge rivaling anything found in the East.

Scientific knowledge

Šā'id al-Andalusī (d. 462/1070), a key source for the early history of the sciences in al-Andalus, remarks that there was little formal scientific inquiry among Muslims until the middle of the third/ninth century (158–59, trans. 59). Before that, specialists in mathematics, medicine, and astronomy-astrology certainly existed. Hishām I (d. 180/796), for example, consulted an astrologer who had studied the writings of Ptolemy (al-Maqqarī 2:321, trans. 2:96), and Ibn Juljul provides anecdotes about several early physicians. Our sources agree, however, that even through the following century serious interest in scientific research was slight. This situation began to change late in the reign of 'Abd al-Rahmān III and especially during that of his son and successor, al-Ḥakam II, who both spurred the importation of scientific writings from the East and was himself an enthusiastic proponent and patron of these fields of research. Although original achievements in these fields occurred only in the following period, popular science in such areas as folk medicine, magic, and astrology doubtlessly thrived in al-Andalus during this early period.

The second period (350/961–636/1238)

The accession of al-Ḥakam II al-Mustanşir marks the beginning of an era in which internally produced forms of knowledge began to compete with and outshine those from abroad. Political changes – the dissolution of the caliphate and the rise of the party kings, and the ensuing establishment of Almoravid and then Almohad dominance – sometimes hindered these currents and sometimes helped, at times promoting work in some fields while discouraging or curtailing it in others. Nevertheless, the cultural base of Andalusī society produced sufficient numbers of sophisticated scholars, teachers, and writers to ensure an extended period of cultural efflorescence. This was correspondingly the period of the Golden Age for the Jewish community, and the period in which the pursuit of knowledge among intellectuals of the increasingly powerful Christian states to the north became established.

Sacred knowledge

Bedrock Malikism is the most prominent aspect of these centuries but not the most interesting. More fascinating are the challenges that mainstream

Malikis faced, whether from individuals (such as Ibn Ḥazm from within al-Andalus or al-Ghazālī from without), from political conditions (whether from the unity of the caliphate, the rivalries of the Taifa rulers, or the incursion of religio-political reform movements from the Maghrib, such as the Almoravids and Almohads), or from competing internal religious orientations (such as various forms of rationalism, mysticism, or esotericism). Nevertheless, while discussing these challenges, we must remember that with the exception of the influence of Sufism, which one could justifiably argue complements rather than competes with Malikism, Maliki fiqh emerged from this period as strong, influential, and uncontested as it entered it.

Malikism maintained this position less because of the brilliance of its exponents than from the coherence of its institutional structure. Each generation produced enough outstanding scholar-teachers to train enough students to fill the necessary legal and scholarly positions. Changing the system did not serve the interests of scholars, jurists, or politicians, so religious corporate cohesion withstood both political tumult and transformation and intellectual and spiritual challenges. A number of religious scholars from this period deserve mention, Abū 'Āmr al-Dānī for Qur'anic readings, Ibn 'Abd al-Barr, al-Bājī, Abū Bakr ibn al-'Arabī, al-Ṭurṭushī, the two Ibn Rushds – the grandfather and grandson – and the qadī 'Iyād in fiqh and hadith. The outstanding religious thinkers of this period were Ibn Ḥazm and the speculative mystic Muḥyi l-Dīn ibn 'Arabī, the first of whom left no prominent followers and the second of whom only became influential after his departure to the East.

The central point of controversy during this period was the question of how to define religious authority. For mainstream Malikis, authority rested in the tradition of interpretations developed by core members of their school: a position of traditional-based imitation (*taqlīd*). Rationalist and spiritual approaches to religious interpretation arose to dispute this view.

The rationalist challenges appeared in jurisprudence and theology. In jurisprudence, the major rival was Shafii use of legal analogy (*qiyās*) to formulate juridical judgments. Several jurists, including Ibn Ḥazm and Ibn 'Abd al-Barr, were attracted to Shafiiism in their youth, although they later rejected it – Ibn 'Abd al-Barr to return to Malikism and Ibn Ḥazm for the Zahiri school. Ibn 'Abd al-Barr's decision may be partly adduced to professional considerations: in order to attract students and wield influence, he rejoined the majority faction. Ibn Ḥazm's choice signaled a more radical rationalism. Having been exposed to logic and philosophy, Ibn Ḥazm based his Zahiri literalism on the rational principle of refusing to interpret religious texts beyond what they themselves specifically stated. According to the Zahiri view, when the Qur'an or hadith permitted or forbade something, it referred to only that

particular practice without either allowing or banning any analogous situation (hence grape wine [*khamr*] is forbidden since it is expressly banned in the Qur'an whereas intoxicants not specifically mentioned are deemed permissible). According to this position, other interpretations, whether based on *qiyās* or *taqlīd*, avoid awarding ultimate authority to religious texts themselves. The Zahiri position attracted few adherents (among them the mystic Ibn al-'Arabī) and never developed into a full-fledged school. Among the Maliki *fuqahā'*, the extent to which *qiyās* should be used remained a matter of contention – favored by a rationalist such as Ibn Rushd, bitterly opposed by such traditionalists as Qadī 'Iyād.

The theological dispute centered on the concept of individual interpretation, *ta'wīl*, justified on the basis of either personal charisma or rational insight. Al-Ghazālī, well versed in Aristotelian logic and philosophical rationalism, promoted both justifications of *ta'wīl* in speculative theology (*kalam*). Simultaneously, he espoused reliance on mystical inspiration for personal interpretation of religion – stances that ran counter to the Maliki jurists and the reformist conservatism of the Almoravid dynasty.

The Almoravids were a religio-political movement intent on removing religious innovation (*bid'ā*), first among the Berber tribes of al-Maghrib and then in the cities of al-Andalus, by imposing strict interpretations of the provisions of early Islam (as they understood them). Many Maliki scholars in al-Andalus initially welcomed Almoravid stringency as an antidote to the religious laxity of the upper classes. They later regretted their enthusiasm, becoming disenchanted with the Almoravids' combination of uncivilized behavior, narrow religious interpretation (they criticized the Maliki reliance on *furū'*, for example), and, later on, corruption. The Almoravids banned the teaching of *kalam* and persecuted its practitioners, at one point (503/1109) publicly burning some of al-Ghazālī's writings. They considered reliance on *ta'wīl* reprehensible.

A contrasting attitude emerged with the Almohad dynasty that succeeded the Almoravids first in the Maghrib and then in al-Andalus. This movement's primary tenet was the essential unity (*tawhīd*) of Islamic doctrine as taught by their charismatic founder, Ibn Tūmart (d. 524/1130), whom they regarded as the Mahdī. If issues remained unresolved by recourse to the teachings of Ibn Tūmart, religious leaders could then resort to the intellect. As part of their rationalist inclination, some Almohad rulers permitted the study of philosophy at their courts, even employing Ibn Ṭufayl and Ibn Rushd as personal physicians and political advisers. Such rationalism never extended to public arenas, however, where the Almohads continued to rely on the support of the Maliki establishment. Royal patronage of philosophy disappeared with the

decline of the Almohad dynasty, although its study remained an option for members of the elite who wished to pursue it privately, as the writings of Ibn al-Khaṭīb and Ibn Khaldūn reveal.

If the Malikis resisted rationalist interpretation, they ultimately accommodated themselves to Sufism. Piety and asceticism had long characterized Andalusī figures such as Ibn Makhlad and Ibn Waḍḍāḥ. The transition from asceticism to Sufism occurs when abstemious practices and supererogatory acts of worship are conceived as means to a closer personal relationship with God. Communal Sufism had existed in al-Andalus at least since the time of Ibn Masarra; this period witnessed its intellectual and popular development. The Almoravids arrested three prominent Sufis of Almería, Ibn Barraĵān, Ibn al-'Arif, and al-Mayūrqī, apparently on suspicion of political provocation, and crushed the revolt of their Sufi contemporary Ibn Qasī (d. 546/1151). Yet, despite this occasional friction between individual Sufis and the ruling regime, this was a seminal period for Andalusī Sufism.

Two final developments in this period deserve mention. The first is the emergence of a regional self-awareness among the religious establishment. This is evidenced by a remarkable series of biographical dictionaries of prominent ulama: the *Ta'rikh 'ulamā' al-andalus* (History of the Ulama of al-Andalus) by Ibn al-Faraḍī (d. 403/1013), continued by Ibn Bashkuwāl, then by Ibn al-Abbār, Ibn al-Zubayr, and Ibn 'Abd al-Mālik al-Marrākushī (d. 703/1303–4). The second is the integration, through the conquests of the Almoravids and Almohads, of the Andalusī and Maghribī religious establishments and their religious views, orientations, and levels of sophistication.

Profane knowledge

By the reign of 'Abd al-Rahmān III, all disciplines of Arabic literary creation and philological study had reached maturity in al-Andalus, and they continued to be cultivated under the rules of his successors, his son al-Ḥakam II and the Amirid viziers, until the final collapse of the caliphate in 422/1031. Court life and governmental bureaucracy in Córdoba provided a center for the patronage of elite prose, both chancellery and literary. In philology and grammar, Ibn al-Qūṭīyya wrote the first treatise on verb conjugation, and al-Zubaydī, a student of al-Qālī, authored a biographical dictionary on grammarians. The epistolary art also thrived; Ibn Darrāj al-Qaṣṭallī and Ibn Zaydūn, for example, were famous poets much admired as well for their fine prose styles. Rhymed prose (*saj'*) increasingly dominated literary style. A century of political stability provided the economic and cultural framework for a literary golden era during the Taifa period. Ironically, it can be argued that the sudden political disintegration and process of governmental

decentralization of that period sparked cultural efflorescence. Al-Shaqundī (d. 629/1231–32) writes that when

the kings of the small states, divided among themselves the patrimony of the Banū Umayya, the cause of the sciences and literature, instead of losing, gained considerably by the division, since every one of the usurpers disputed with each other the prize of prose and poetical composition, and overstocked their markets with all departments of science; encouraged literature, and treated the learned with distinction, rewarding them munificently for their labours; their principal boast was to have people say, the learned man such a one is held in great esteem by the king so and so – or the poet such a one is much beloved by the king so and so; so that not one is to be found among them who has not been distinguished by the most brilliant qualities, or who has not left behind him traces that the hand of time will never obliterate.

(al-Maqqarī 4:182–83, trans. 1:35)

This was the highwater mark of Andalusī literary production. Ibn Ḥazm wrote *Ṭawq al-ḥamāma* (The Dove's Neckring), a classic of Arabic love literature. His cousin, Ibn Shuhayd, composed *Risālat al-tawābi' wa l-zawābi'* (Treatise of Familiar Spirits and Demons), in which he embarks on an imaginary journey to interview the creative demons of poets and prose writers from the past and cites his own poetry and prose to prove his artistic superiority. Ibn Gharsiya wrote his treatise on *shu'ūbiyya* (anti-Arabism) for his princely Slav patron, al-'Amirī (d. 436/1044), while Ibn Burd al-Aṣghar composed essays on varied literary topics. Several rulers of the period, members of the Banū 'Abbād in Seville, the Banū Hūd in Saragossa, and the Banū 'Amir in Denia, proved to be major patrons of and even active participants in literature and learning. Political rivalry fanned the flames of culture.

This is also the great age of Andalusī political, cultural, and literary history as written by Andalusis themselves. Ibn Ḥayyān (d. 469/1076), the greatest historian of medieval Spain, wrote the *Muqtabis* (The Selection, in ten volumes) and *Matīn* (The Solid, in sixty volumes), the surviving fragments of which were preserved by later writers through lengthy quotes. Combined political and cultural history was continued by 'Abd al-Wāḥid al-Marrākushī, Ibn Sa'īd al-Maghribī, and Ibn 'Idhārī, who incorporated the works of predecessors such as Ibn Ḥayyān and continued their narratives through the Almoravid and Almohad periods.

Ibn Ḥazm, staunch supporter of the Umayyads, authored a series of short dynastic histories. His book on heresiography and religious history, *al-Fiṣal fi l-milal wa l-ahwā' wa l-niḥal* (Book of Schisms and Sects), is perhaps the world's first work on comparative religion. In answer to a North African scholar's inquiry of why Andalusis never praised their cultural achievements, Ibn Ḥazm also composed the first of the series of essays on the virtues of al-Andalus, praising Andalusī accomplishments in all fields of learning, a topos

continued in treatises by Ibn Sa'īd and al-Shaqundī (all included in al-Maqqarī 4:149–211, partial trans. 1:168–99). Similarly, Ṣā'id al-Andalusī devoted a chapter to al-Andalus in his *Ṭabaqāt al-umam*, an overview of the philosophical and scientific endeavors of various nations.

Defense of the greatness of al-Andalus was also prominent in literary history. The greatest Andalusī literary historian, Ibn Bassam (d. 543/1147), complained of his countrymen's failure to give credit to Andalusī writers because of their fascination with things Eastern. As a remedy, he offers his *al-Dhakhīra fī mahāsīn ahl al-jazīra* (Treasury of the Best of the Andalusian Peninsula), a literary history and anthology in four parts, each devoted to the poets and writers of a particular region of the country. Ibn Khāqān (d. c. 529/1134) contributed to this tradition of literary biography/anthology with two works surveying poets by professional class, as did later scholars such as Ibn Sa'īd al-Maghribī and al-Maqqarī. Such anthologies, often composed in styles admired by lovers of belles lettres, themselves fall within the genre of adab.

Scientific knowledge

This period begins with almost all branches of science and philosophy being imported from the East. By the era's end, however, al-Andalus is a major exporter of knowledge, to the lands of the Islamic south and east and to the Christian north. As such, al-Andalus should be viewed less as a passive east to west conduit of Greek science than as an active participant in a Mediterranean intellectual tradition that begins with the Greeks but is continued by Romans, Byzantines, Persians, subjects of the Muslim empires (whether Muslim, Christian, or Jew), and then intellectuals in the West.

The basis of this tradition is rationalism: the belief that the intellect is a universal, defining element of human nature and that by means of the intellect human beings are able to acquire knowledge of universal validity and relevance; differences in language, culture, or religion are of noteworthy but not defining importance. In fact, participants in this intellectual tradition have often believed that they shared more with corresponding members of other cultures or communal groups than with nonintellectual members of their own communities. This is one reason that this tradition so effectively crossed boundaries of time, space, and culture. Greek philosophy and science provided the basis on which later practitioners then built. The Hellenistic, Roman, and then Muslim *oikoumēnēs* thereafter charted their own intertwined intellectual courses within a transcultural intellectual endeavor.

Beyond its universalist vision, the great appeal of this rationalist tradition is its unified method of inquiry, based on reliance on Aristotelian logic and a uniform curriculum of study. The configuration of this curriculum is evident

in Ibn Ḥazm's division of the sciences. It begins with the study of logic, which provides a standard terminology, approach, and frame of reference, continues with study of the natural sciences, and culminates with metaphysics. Philosophy has both theoretical and practical dimensions. Metaphysics is the inquiry into first principles, while the natural sciences investigate the fundamental and ancillary principles of the laws of nature and material phenomena, including the study of human beings and how they can most happily live, whether in groups (politics), as individuals (ethics), or as physical entities (medicine).

Intrinsic to the popular acceptance of this tradition are the hermetic analogues that accompanied these scientific endeavors. Although they had distinct underlying (if sometimes seemingly overlapping) operational principles and goals, philosophy and the sciences shared with the occult corresponding areas of interest (medical treatment versus thaumatology, astronomy versus astrology, chemistry versus alchemy, and metaphysics versus demonic cosmology). Fascination with these occult sciences was usually more prevalent than interest in their more serious analogues and, as a result, stimulated the latter's social acceptance and financial support. Many a ruler became a patron of astronomy because astrology was part of the bargain. *Ghāyat al-ḥakīm* (Aims of the Sage, the Latin *Picatrix*), the magical treatise falsely attributed to the astronomer al-Majrīṭī, had a larger audience than anything written by the historical al-Majrīṭī.

Philosophy and science were the domain of the few. They were taught and communicated privately, with the socially useful practical fields of mathematics, astronomy, and medicine presenting the public rationale for the study of logic, psychology, and metaphysics. Not all physicians were philosophers, but many philosophers practiced medicine, both to earn their livelihoods and to protect their lives. Many were also attached to courts, where their intellectual skills occasionally elevated them to the highest levels of government service. The three greatest Muslim philosophers of the West all served as ministers and shared the risks that high government service presented to courtiers. Ibn Bājja, for example, was imprisoned twice by princes whom he served and died poisoned by court rivals; Ibn Rushd was forced into retirement and saw his books banned due more to changes in political policy than to true royal disapproval of his thought.

The process of translating Hellenistic science and philosophy into Arabic was largely completed in the East by the end of the fourth/tenth century. By this time, a philosopher such as al-Fārābī or Ibn Sīnā could have access to the major works of Aristotle, Euclid, Ptolemy, Galen, and Hippocrates, along with important Hellenistic commentaries, with more limited exposure to the original works of Plato, mainly the *Timaeus* and the *Laws*, and summaries or

secondary accounts of *The Republic*. All of these works, the translations from the Greek and original works of the great philosophers of the Muslim East, arrived in al-Andalus throughout the fourth/tenth and fifth/eleventh centuries. Ibn Ḥazm, Ibn Juljul, and Šā'īd al-Andalusī show how this appropriation of knowledge transpired.

The main sciences cultivated in al-Andalus until the sixth/twelfth century were practical: mathematics and astronomy (essential for determining the accurate direction and times of prayer), and medicine. Šā'īd mentions the early activities in these areas of Ibn Fīrnās, Abū 'Ubayda al-Laythī, and Yaḥyā ibn Yaḥyā (d. 316/927). First 'Abd al-Raḥmān III and then even more intensively al-Ḥakam II began to import books in all scholarly fields on a massive scale, a process that solidified and broadened knowledge of science and philosophy in al-Andalus (Šā'īd 158–63, trans. 60–61). Exemplary of this process is Abū l-Qāsim al-Majrīṭī (d. 397/1007), who introduced the philosophic compendia of the Ikhwān al-Šafā' (Brethren of Purity) into al-Andalus, and was a major mathematician and astronomer who trained a circle of students (Ibn Samḥ, al-Zahrāwī, and al-Kirmānī) who carried on his research into the next century. Later mathematicians and/or astronomers include al-Mu'taman, Hudid ruler of Saragossa, Ibn Sayyid, teacher of Ibn Bājja, al-Jayyānī, Ibn Zarqullāh, the greatest Andalusī astronomer, and Abū l-Šalt (d. 529/1134). The activities of these scholars and their successors centered on geometry and spherical trigonometry, the improvement of astronomical tables (*zījēs*), and development of astronomical instruments.

In the middle of the fourth/tenth century, the Byzantine emperor presented 'Abd al-Raḥmān III with a Greek copy of Dioscorides' *Materia medica*, an essential work of pharmacology. The translation of this work from Greek into Arabic spurred investigation as local physicians and pharmacologists reviewed native plants to learn their medical uses. Abū l-Qāsim al-Zahrāwī (Abulcasis, d. c. 404/1013), a friend of Ibn Ḥazm, composed his medical encyclopedia, *al-Ta'rif li-man 'ajaz 'an al-ta'lif* (Aid to Whomever Is Unable to Compose Treatises), which remained a major surgical textbook in al-Andalus and in Europe even after the arrival of Ibn Sīnā's *Qānūn* (Canon on Medicine) early in the sixth/twelfth century. Perhaps the most famous Andalusī physicians were the the Banū Zuhr: 'Abd al-Malik ibn Zuhr (d. 470/1078), personal physician of Mujāhid al-Amirī, ruler of Denia; his son Abū l-'Alā ibn Zuhr, who served al-Mu'tamid ibn 'Abbād of Seville and then the Almoravid Yūsuf ibn Tāshfīn; and his grandson Abū Marwān ibn Zuhr, a contemporary and esteemed colleague of the philosopher Ibn Rushd.

Andalusī philosophy reached a high point in work of Ibn Bājja (Avempace, d. 533/1139), Ibn Ṭufayl, Ibn Rushd (Averroes), and Maimonides. Ibn Bājja was born in Saragossa, where he also served as vizier until the city's fall to

Alfonso I of Aragon. After a period that combined governmental service with short periods of political imprisonment, he served for twenty years (until his death) as vizier to the Almoravid governor Yahyā ibn Yūsuf ibn Tāshfīn. Ibn Bājjā was well trained in all branches of knowledge and was an able poet, but his renown stems from his philosophical compositions, such as *Tadbīr al-mutawahhid* (Rule of the Solitary). In his epistemology, Ibn Bājjā explores the relationships among sensual, imaginative, and intellectual forms of knowledge and the modalities of their acquisition and interaction. Like most philosophers, he holds that the apprehension of pure intelligibles constitutes the highest level of human perfection, although few individuals attain this state. The question he thereafter poses is how such individuals should relate to the rest of society, consisting as it does of imperfect human beings. Unlike al-Fārābī, who otherwise influenced his thought, Ibn Bājjā had little faith in human ability to achieve a perfect society. Hence, although he believes this to be a praiseworthy goal, he advises that on a practical level intellectuals should only discuss philosophical topics with one another and refrain from making their views known to other classes of people.

Ibn Ṭufayl did not know Ibn Bājjā personally, but like him he served important rulers (in his case the Almohads) as both a physician and political adviser. Influenced by Ibn Bājjā's writings, along with those of Ibn Sīnā and al-Ghazālī, Ibn Ṭufayl also focused on the issues of knowledge and the relationship of the philosopher with society, dealing more explicitly than his predecessor with the relationship between philosophy and religious revelation in his philosophical novel *Hayy ibn Yaqzān* (Alive, Son of Awake) (*Ibn Ṭufayl).

Ibn Ṭufayl's thought on the relation between philosophy and religion influenced that of his protégé at the Almohad court, Ibn Rushd (Averroes), who succeeded him as court physician. Nevertheless, Ibn Rushd treated this subject differently. As the scion of a family of religious scholars, being the son and grandson of famous Cordoban qadis (a position he also attained) and himself the author of a well-regarded introductory textbook on Muslim jurisprudence, Ibn Rushd was intimately aware of the complexities and opportunities offered by Islamic religious discourse. As a result, he confronted the arguments of religious opponents to philosophy directly. He wrote a detailed response to al-Ghazālī's critique of peripatetic philosophy, *Tahāfut al-falāsifa* (The Incoherence of the Philosophers), which he titled *Tahāfut al-tahāfut* (The Incoherence of the Incoherence). In *al-Faṣl al-maḳāl* (Decisive Treatise), he discussed the concordance of religion and philosophy in the format of a fatwa.

That Ibn Rushd was prepared to defend philosophy from religious critics did not mean that he fully agreed with the ideas of earlier Muslim philosophers. He was especially critical of Ibn Sīnā, preferring instead to return

directly to the writings of Aristotle. These he knew intimately, since he presented them to his contemporaries in a series of synopses, renditions, and full-scale lineal commentaries (known respectively as the short, middle, and great commentaries). Through first Hebrew and then Latin translation, these works helped introduce Aristotle's thought to Christian Europe.

Similar to Ibn Rushd in his masterly command of both the religious (in this case Jewish) and the philosophical traditions was Mūsā ibn Maimūn, better known as Maimonides. He was contemporary to Ibn Rushd and knew of him, although they did not directly influence each other's thought. Maimonides also wrote on the relation between philosophy and religious revelation in his *Guide of the Perplexed*, originally composed in Arabic. He was less aggressive than Ibn Rushd and less mystical than Ibn Ṭufayl, relying instead more on the ideas of Ibn Bājjā and al-Fārābī in his interpretation of how philosophy and religion relate. For him religion was a social necessity and a moral imperative that the truths of philosophy underlie but cannot replace.

This period also witnessed the beginning of the translation movement that transmitted Greek and Islamic science and philosophy to Western Europe. From the sixth/twelfth century through the seventh/thirteenth, this process of translation paralleled similar movements from earlier times, such as the Muslim appropriation of Greek and Hellenistic science and philosophy in the East or the movement of such knowledge from the East to al-Andalus. In each case, members of the acquiring communities first actively sought out works of magic and astrology, followed by those dealing with mathematics, astronomy, and medicine, and finally, in a more organized fashion, appropriated the full philosophical curriculum, from logic to metaphysics. Of less interest to European scholars was Muslim religious or profane knowledge. In general, translations in these areas circulated on the popular level and consisted of tales such as those found in the *Thousand and One Nights* or works of popular adab, such as *Kalīla wa-dimna*.

The third period (636/1238–897/1492)

The reduction of Muslim al-Andalus to the Nasrid kingdom of Granada undercut the cultural and economic infrastructure needed to support the pursuit of knowledge. It also resulted in the emigration of the highly educated Muslim classes who comprised the religious, political, and intellectual elites to beyond al-Andalus, whether to North Africa or farther to the lands of the East. Ambitious individuals now traveled to serve the new Marinid dynasty in Morocco, the Hafsids to the west, or the Mamluk rulers of Egypt. Andalusī scholars had long accustomed themselves to obtaining employment

in Marrakech or Fez. With the loss of most of al-Andalus by the middle of the seventh/thirteenth century, such individuals and their families now assumed permanent residence in the Maghrib or in the East.

The political and military victories of the Christian states stimulated a corresponding intellectual and cultural flowering in these kingdoms, as exemplified by the creative activities at the court of Alfonso the Wise of Castile-León (d. 1284), and an even greater efflorescence in France and Italy, where scholars and intellectuals, armed with the newly acquired knowledge of Muslim-Hellenistic traditions of philosophy and science, took the lead. Jewish communities in lands now controlled by Christian rulers became increasingly embattled and their cultural impetus ultimately shifted to the European-based Jewish communities north of the Pyrenees and in Italy.

The declining state of Andalusī culture is typified by several careers. The philosopher and mystic Ibn Sabʿīn was born in Murcia. When his controversial intellectual views necessitated his departure from his home city, he moved to Ceuta in Morocco. He continued East, finally ending in Mecca where he died in 668–69/1269–71. Similarly, Ibn Saʿīd al-Maghribī was born in Granada, spent his youth in Seville, then left with his father to perform the pilgrimage and find his fortune. In the East, he attained fame as the author of *Kitāb al-maghrib fī ḥulāʾ al-maghrib* (Wondrous Book on the Ornaments of the Maghrib), a biographical dictionary and poetical anthology of cultural figures of al-Andalus started by Ibn Saʿīd's grandfather and continued by his father and uncle. Renowned as an authority of Andalusī culture for this and other works, Ibn Saʿīd never returned home, dying in Tunis in 685/1286. Andalusīs had often traveled in the East; now once they left their homeland, there was little reason to return.

Al-Andalus produced one final polymath in *Ibn al-Khaṭīb (d. 776/1375). Trained among other things as a physician, he rose to become vizier to the Nasrid ruler of Granada, Muḥammad V. Celebrated for the quality of his chancellery letters and for his writings on medicine, history, adab, and mystical philosophy, Ibn al-Khaṭīb was also friend and patron to the great historian Ibn Khaldūn, who came to Granada from Tunis to serve him. Al-Maqqarī composed the first two-thirds of his great compilation of Andalusī history and culture, *al-Naḥḥ al-ṭīb* (The Breath of Perfume), as a prolegomenon for his biography of Ibn al-Khaṭīb, which comprises the final third of the book. It is eminently appropriate that the biography of this great man also became the history of the brilliant culture of which he was final representative and worthy heir.

The capture of the final independent Muslim political entity in al-Andalus, Granada, marked the end of formal traditions of intellectual

pursuit. Informal and popular traditions continued to exist for another century among the Mudejar and Morisco communities until their final expulsion in 1609–12. The contours of this type of knowledge may be seen in the surviving body of Aljamiado literature, texts written in Romance in Arabic script (*Moriscos).

CONCLUSION

There is a tendency to mourn the disappearance of the brilliant culture of al-Andalus. Given the impressive intellectual achievements of Andalusī culture, such feelings of loss and remorse are understandable. Nevertheless, one should also celebrate the accomplishments of members of this culture who excelled in so many fields of endeavor. We should also appreciate the extent to which their contributions continued to enrich Islamic civilization in North Africa and the Muslim East, Christian civilization to the north, and Jewish culture throughout the Mediterranean for centuries thereafter. Relatively few cultures have in fact seen their achievements in the field of knowledge so thoroughly and efficiently incorporated by those who came after. Despite the existence of some unfortunate gaps and regretful losses, a remarkable amount of the contributions of Andalusī scholars and intellectuals remain extant. Together, they comprise an extraordinary book of knowledge open for all who wish to consult it, learn from it, and enjoy.

NOTES

- 1 English trans. in Chejne, *Ibn Hazm* 189–214. Cf. Ibn ʿAbd al-Barr's *Jāmiʿ bayān al-ʿilm* (Comprehensive Exposition of Knowledge) and Ṣāʿid al-Andalusī's *Ṭabaqāt al-umam* (Categories of Nations). On earlier approaches, see Rosenthal, esp. 70–96.
- 2 Compare this framework with the medieval European curriculum of the seven liberal arts: grammar, dialectic, rhetoric (the trivium), then arithmetic, music, geometry, and astronomy (the quadrivium).
- 3 A second version focuses on a direct link between al-Ḥakam and Mālik. Imam Mālik heard from an Andalusī scholar of the exemplary conduct of the Andalusī rulers of the house of Marwān, which contrasted to the oppression by Abbasid caliphs, especially al-Manṣūr, who were persecuting the descendants of ʿAlī and had earned Mālik's constant denunciation. When Mālik heard of al-Ḥakam's conduct, he is said to have exclaimed in rapture, "God grant that he may be one of ours," or words to that purport. This wish having been communicated to the sultan by the ʿālim in whose presence it was

expressed, they say that al-Ḥakam, who was already informed of the great reputation which his virtues and sanctity had gained him, decided immediately upon adopting the *madhhab* of Mālik and forsaking that of al-Auzā'ī.

(al-Maqqarī 4:217–18, trans. 113, slightly amended)

4 For more on Ziryāb, see *Music.

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