Contributions

Arab Contributions to Civilization

By Ruth Afifi; Aseel Nasir Dyck, and Audrey Shabbas

From the eighth to the thirteenth century A.D., an Arab empire greater than Rome's extended across North Africa, the Middle East, and Central Asia, from Spain to the borders of China. Unified and inspired by the religion of Islam, its people met in a new society, a multi-ethnic "Muslim World" whose members were Arab, Afghan, Aramaean, Berber, Egyptian, Indian, Persian, Spanish, and Turk — Moslem, Christian, Jew, Hindu, and Zoroastrian. Diverse cultures flourished within the Empire and made great achievements in many fields.

... what happened was not the imposition of a foreign culture by invasion, not the same process that carried Western civilization to the East during the period of European colonialism ... The distinctive and richly hued civilization that characterized the Muslim world at its height was formed 'in situ.' ... Its major components were at hand within the varied beliefs and traditions of the subjugated people — classical literature, Hellenistic thought, Byzantine institutions, Roman law, Syriac scholarship, Persian art ... [which were] combined into novel patterns ... that served as both resource and stimulus to creative Muslim scholarship. The result was not simply a montage of bits and pieces of disparate culture. It was a new creation with its own distinctive pattern, infused with a new spirit and expressing a new social order. 1

Arabic was the lingua franca of the Empire, the language of commerce, culture, diplomacy, and science, just as Latin would be in medieval Europe. Shaping the identity of those who used it, Arabic was required for scholarship and the exchange of ideas among the polyglot citizens of the Empire. It was an excellent tool:

The language that came out of the desert with the Qur'an in one hand and the magnificent poetry of the early Arabs in the other had a flexibility and range of expression that quickly adapted itself to use as a scientific medium. By the ninth century, knowledge could travel from China to Spain in a common milieu." 2

Unlike the Mongol invaders of the thirteenth century who destroyed much of the Middle East, the Arabs were constructive influences in their domain. They created a new social order, a tolerant Muslim society, to which they brought Islam, the Arabic language, and Islamic law. The unique civilization of the Muslim world developed within an Arab framework and was largely determined by the fact of an Arab empire.

The Prophet Muhammad is said to have directed Muslims to "seek knowledge, even in China," and within three generations the Arab armies which had conquered most of the known world in the seventh century settled down to enjoy, comprehend, and enrich the advanced civilizations they had so quickly taken.

The House of Wisdom

Capital of the Arab Empire, Baghdad was for several centuries the cultural center of the medieval Muslim world. Its brilliant intellectual life revolved around the Beit Al-Hikmah ("House of Wisdom"), an academy, library, museum, observatory, and translation center. Founded by the scholarly Caliph Mamoun in A.D. 830 the Beit Al-Hikmah was the most important institution to be established since the Alexandrian Library in Egypt in the third century B.C. Before any existed in northern Europe, great universi-
The first “Renaissance Man,” Ibn Sina, known as Avicenna in the West, was master of philosophy, poetry and diplomacy as well as pharmacy, medicine and natural science. In A.D. 997 at the age of 17, he became a physician and won esteem throughout the Arab world and Europe for his Canon of Medicine, which remained for six centuries Europe’s most influential medical textbook. Another “Renaissance Man” who predated Europe’s Renaissance was Ibn-Rushd (Averroes), an Arab Muslim of 12th century Cordoba. Philosopher, astronomer, and court physician, Ibn-Rushd greatly influenced Christian theology, encouraging it to accept the harmony of faith and reason that had long been an integral part of Muslim culture.

ties and libraries also developed in other Arab cities such as Damascus, Alexandria, Fez, Cordoba, and Palermo. In just one of Cordoba’s seventy public libraries, for example, four hundred thousand books were collected.

Many have said that the greatest single contribution of the Arabs to Western civilization was their recovery and subsequent introduction to the West of ancient learning. At the Beit Al-Hikmah, hundreds of Greek, Persian, Sanskrit, and Syriac manuscripts were preserved and carefully translated into Arabic, primarily by Syriac-speaking Christian and Sabian scholars of Iraq and Syria. Had the priceless manuscripts been lost, “the world would have been as poor as if they had never been produced.” In some cases only the Arabic translations remain, such as the seven books of Galen’s Anatomical Procedures, and in many instances, the Arabic translations were far more accurate than the Latin versions which succeeded them.

The greatest scholar in the translation movement of Islam was Hunayn Ibn-Ishaq (809-873), a Nestorian Christian physician who translated all of Galen’s medical works and most of Aristotle, Plato, and Hippocrates. Thabit Ibn-Qurrah (836-901), a Sabian star-worshipper and prolific science writer, translated the major Greek mathematics and astronomy texts by Euclid, Archimedes, and Ptolemy. The enormous accomplishments of these two men and their associates in transmitting Greek thought to the Arabs indelibly influenced the course of Islamic and Western civilization.

The Arabs were much more than “torchbearers” of the world’s classical antiquity. They did not stop at translation but assimilated the ancient knowledge and added original and important ideas and discoveries of their own in virtually every field. (Ibn-Qurrah alone wrote more than 100 scientific treatises, including a commentary on Ptolemy’s Almagest.) When the new works in Arabic and the classics in Arabic translation were translated into Latin late in the twelfth century at Arab centers of learning in Spain and Sicily, they became the foundation of the first Renaissance in Europe: Islamic Spain.

Philosophy

Philosophy was a major interest of the Empire, and the logic and methods of Aristotle influenced both scientists and
theologians. For the latter, philosophy was “the handmaiden of religion” and an aid in the unending search for rational justification of religious belief.

Iraq’s Al-Kindi (801-873) synthesized Greek philosophy and Islamic theology and was known as “the philosopher of the Arabs.” Like the other Renaissance men of his time, Al-Kindi mastered several fields and was famous as an astrologer, musician, and optician to whom European scientists later acknowledged their debt. More of Al-Kindi’s 361 works survive today in Latin translation than in the original Arabic.

The Crusades in the eleventh and twelfth centuries introduced Latin-Christian Europe to Arab medicine. Wounded crusaders lucky enough to be treated by the Arab hakim (“wise men”) observed humane and effective techniques and discovered a highly developed profession. The Crusades were much more than “torchbearers” of the world’s classical antiquity. They did not stop at translation but assimilated the ancient knowledge and added original and important ideas and discoveries of their own in virtually every field. In most cases licensing procedures required physicians to pass qualifying examinations before they could practice. Public health services were organized, and doctors attended patients in hospitals, at home, in prison, and in rural areas. Special institutions were endowed for lepers, the lame, and the blind. Surgery was an Arab specialty, made possible by anesthesia.

The first Arab hospital was established in eighth-century Baghdad. Subsequently, thirty-four were built throughout the Empire. They contained separate wards for the insane and for different diseases, pharmacies, laboratories, medical libraries and medical training centers. Both women and men were nurses, and practitioners attended to the emotional as well as the physical needs of the patients. At the Great Hospital of Al-Mansur in Cairo,

...sweet music played at night to soothe the sleepless, and there were some fifty storytellers to amuse the patients. On discharge, each patient was given a quantity of money to tide him over during his convalescence — the earliest known form of social rehabilitation.

Soon after the Crusades, the most important medical works in Arabic were translated into Latin by the famous translation schools in Cordoba, and

The Persian-born physician Rhazes (c. a.d. 865-925) at the bedside of a young patient afflicted with measles. First to describe measles and smallpox with clinical accuracy, and first to observe and report papillary reaction to light, Rhazes wrote the earliest known book on pediatric care. Picture courtesy of Parke, Davis & Co.
hundred major scientific works, including the first clinical account of smallpox. His enormous and comprehensive encyclopedia of medical wisdom was translated from Arabic into Latin in 1279 and was reprinted in Venice as late as 1542, almost seven-hundred years after his birth. Some of his recommendations are still timely.

Ar-Razi led the fight against quacks and charlatans in the health field, called for consultation and mutual trust between skilled physicians, and favored a family-doctor practice. He warned patients that changing from one doctor to another would waste their wealth, health, and time. He promoted psychotherapy, pointing out that hopeful comments from doctors encouraged patients, made them feel better, and promoted speedier recovery. He stressed the importance of a balanced diet for the preservation or restoration of good health. And he admonished practitioners to avoid extravagance and to dress, eat, and live simply?

Another Persian, Ibn-Sina (980-1037), wrote an even more famous medical encyclopedia in Arabic. Summarizing Greek, Arabic, Hindu, and Persian medicine, Ibn-Sina’s Canon described every known disease, both physical and mental, every method of treatment, and all medications, evaluating 760 drugs in use at the time. The Canon was used in the Muslim world until the nineteenth century, and was the West’s basic medical text for more than five centuries, with thirty editions in Latin and several in Hebrew.

Medicine was only one of Ibn-Sina’s interests. Extraordinarily precocious, Ibn-Sina had already mastered the natural sciences, mathematics, philosophy, and Islamic law when he began to study medicine at sixteen. At eighteen he became so famous that foreign rulers traveled to Persia to be treated by the young doctor.

Ar-Razi (865-925) has been called “the unchallenged chief physician of the Muslims.” Born in Persia, he trained in Baghdad and spent most of his professional life directing and teaching at a hospital near Teheran. Ar-Razi was famed for his highly original contributions to several fields, and he wrote one
guided European medicine (beyond Arab Spain) until the seventeenth century. Three of the most influential medical authors were Ar-Razi (Rhazes), Ibn-Sina (Avicenna), and Az-Zahrawi (Albucasis).

In hundreds of works Ibn-Sina systematized the knowledge of his time, and his major works on both philosophy as well as medicine were fundamental contributions to the Renaissance in Europe.

Az-Zahrawi (d. 1013) of Arab Spain was revered in Europe as the chief of all surgeons. His text on medicine was used in Europe until the sixteenth century and contained two hundred of the earliest known illustrations of surgical instruments in medieval literature. His interests ranged beyond surgery, and Az-Zahrawi’s description of hemophilia was the first to take into account its hereditary nature.

Mathematics

Achievements in mathematics were a
major Arab contribution to Western civilization. Without the simplicity and flexibility of Arabic numerals, the decimal system, and the concept of zero — all adopted by the Arabs from the Hindus — Western science could not have advanced as it did. The Arabs developed the concept of irrational numbers, made algebra an exact science, founded analytical geometry, plane and spherical trigonometry, and incorporated into mathematics the dimension of time.

Hindu-Arabic numerals were first introduced to the West through the works of

algebra extensively and developed a calendar more accurate than the Gregorian. Nasir ad-Din at-Tusi (1201-1274), another Persian, did original work in trigonometry and made it an independent discipline.

Astronomy

The religion of Is-

Diagram illustrating Ibn Al-Haytham’s solution of what has come to be known since the seventeenth century as “Alhazen’s problem”: given points a and b (as eye and object), to find (in this particular case) the point d on the spherical convex mirror at which the light from one of the two given points will be reflected to the other. Ibn Al-Haytham solved the problem by means of intersection of a circle and a hyperbola.

Al-Khwārizmi (780-850), a Persian who compiled the oldest known astronomical tables in Arabic and the oldest Arabic works on arithmetic and algebra. In the twelfth century Al-Khwārizmi’s treatise on algebra was translated into Latin and served as Europe’s principal mathematics text until the sixteenth century. Modern geographers honored Al-Khwārizmi in the 1970s by adding his name to the map of the moon.

Umar Al-Khayyām (d. about 1130), the Persian poet of the Rubāyāt, advanced

used even in China. Centers of astronomy in the medieval Arab empire were located at Toledo, Cairo, Maragha, Shiraz, Ghazna, Samarkand, and elsewhere.

One of the most famous Arab mathematicians was Ibn Al-Haytham (965-1040) of Iraq, who developed Euclidean geometry and was highly regarded for his work in optics. European scientists knew him as Alhazen. (Note illustration at left.) Early in the ninth century, during the reign of the scholarly Caliph Mamoun, observatories were built

Al-Tusi’s version, based on earlier Arabic translations, of Euclid’s proof of the Pythagorean theorem.
near Baghdad and Damascus. Here astronomers measured the length of a terrestrial degree in order to determine the size and circumference of the earth. This work was based on the ancient assumption that the earth was round. At a time when Europeans were trying to determine where an unlucky ship would sail off the earth, Arab astronomers had calculated the earth’s diameter at 6,500 miles and its circumference at 20,400 miles.

Much of the fundamental work in astronomy was done in the Middle East as early as 3800 B.C. Records from Mesopotamia indicate this was probably the period when the concept of constellations formed. The ancient Babylonians could accurately predict solar and lunar eclipses and their almanacs gave the times of sunrise and sunset and the positions of the planets. Almost five thousand years before the first telescope, the Babylonians knew within ten degrees the perigee of orbit of the sun, and their stellar year (measured by the positions of fixed stars) was only four and a half minutes too long.

Thousands of years later, when Pythagoras traveled in Egypt around 530 B.C., he learned that the earth is a sphere freely poised in space. In the third century B.C., Eratosthenes, a native of Cyrene in northeastern Libya, invented or improved astronomical instruments, and by star measurements he inferred a close approximation of the circumference of the earth. The Arabs of the Middle Ages are credited with developing such instruments as the compass, quadrant, sextant, and astrolabe.

The astrolabe combined something of the nature of a sundial with maps of the stars and the planets. A sophisticated model could answer a thousand mathematical problems — not a bad computer for the Middle Ages. It was the mother of all the later instruments for measuring the stars, and was first developed by Greeks in Alexandria, perfected by Arab and Persian astronomers, and introduced by them to Europe. For more than a thousand years the astrolabe was paramount. It could tell the times of sunrise and sunset, darkness and dawn, for any day of the year. It could give the compass bearings of stars, moon, and planets at any particular time. It could measure the height of a house or a mountain. Portable models might be only two or three inches across and, in the days before clocks, could tell time. Muslims used them both for the times of prayer and to establish the direction of Makkah.10

Among the great astronomers of the Arab empire were Al-Battani (Albategnius) in tenth century Iraq, and Al-Biruni (d. 1050) and Umar Al-Khayyam (d. 1130) of Persia. Modern reminders of Arab contributions to astronomy are the stars with Arabic names — Acrab, Aldebaran, Algedi, Algul, Altaire, Betelgeuse, and Deneb, to name a few — and Arabic technical terms such as "azimuth," "nadir," and "zenith."

Geography

Medieval Arab geographers mapped the vast world they knew, using information from the ancients and the well-traveled citizens of the Empire — the nomads and pilgrims, wandering scholars and craftsmen, mobile armies, desert caravans, and sailors who had known the way from Arabia to China for a thousand years.

One valuable source of material for geographers were the guidebooks written for pilgrims to Makkah from such distant regions as West Africa, Indonesia, and central Asia. The Arabs developed
the science of geography far beyond earlier collections of fantastic stories about Sinbad the Sailor and other legendary figures.

All of Europe, Asia, and Africa north of the equator can be seen in surprising detail on a famous map by Al-Idrisi (1100-1166), a Moroccan scholar at the court of Roger II in Palermo. On Al-Idrisi’s circular map,1 the continents join at Suez and are bounded by oceans. Rivers like the Danube, Niger, Nile, Volga, Ganges, and Yangtze flow from their sources to the sea, and mountain ranges are clearly marked in Arabic, including “The Mountains of the Moon,” and “The Source of the Nile” in present-day Uganda. (Englishmen of the nineteenth century were still searching for the source of the Nile.)

Among other names in Arabic on Al-Idrisi’s map are India (“al-Hind”), Tibet (“at-Tibet”), China (“al-Aseen”), North Africa (“Afreeciah”), Ghana (“bilad Ghana”), France (“al-Fransiah”) and Germany (“al-Lamanniah” and “Germaniah”). The unknown area in Africa south of the equator is labelled “the desert and sands beyond the middle of the earth,” but the detail of eastern Asia is quite exact — two centuries before Marco Polo.

Al-Idrisi used scientific methods and was aided by Arab work in mathematics and astronomy which advanced the ancient knowledge of the size of the earth and its latitudes and longitudes. Al-Idrisi also wrote an encyclopedic geographical work, The Book of Roger, first printed in Latin in 1619 and not yet translated entirely into English.

Other geographers were Al-Istakhri of Persia (950), Al-Maqdisi of Jerusalem (c. 985), and Yaqut (1179-1229), a Greek from Asia Minor whose work in Persia, Iraq, and Syria culminated in a great geographical dictionary.

**Social Sciences**

Distinct from the geographers and mapmakers were the professional travelers of the Empire who wrote of what they had seen. Greatest of them all was Moroccan-born Ibn-Battuta (1304-1377), who followed his motto: “Never, so far as possible, cover any road a second time.”12 Fifty years younger than Marco Polo (1254-1324), Ibn-Battuta journeyed seventy-five thousand miles in thirty years through all the Arab countries, Turkey, southern Russia, Persia, Central Asia, India, Ceylon, Indonesia, and China. He also explored North Africa, Spain, and West Africa, including Timbuktu, Mali, and Niger.

Had he merely traveled, Ibn-Battuta might have won brief mention in a book of world records. However, he earned lasting fame with his carefully recorded observations of the politics, administration, social conditions, and economics of the lands he visited. Ibn-Battuta also wrote about women, a subject taboo to other explorers, and took special interest in religious leaders, saints, and theologians, thereby recording the religious life of the fourteenth century. Especially valuable are Ibn-Battuta’s fascinating histories of West Africa and of Muslim India, where for a time he was chief judge of Delhi. Ibn-Battuta was able to travel so far because the Islamic world at the time was far-flung, centrally governed and peaceful. He was able to stop and work as a judge wherever he went because Islamic law was in use in most of the places he visited.

Perhaps more well known in the West was Hassan Al-Wazzan (1495-?). Born in Granada and educated in Morocco, Hassan Al-Wazzan became known in

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*Aran astronomers, as pictured in sixteenth century Venetian book. Note sextant on right.*
Europe as Leo Africanus, the world’s greatest expert on Africa. In 1526 Al-Wazzan himself translated from Arabic into Italian an account of his travels in the great continent, and for two hundred years this work was Europe’s chief source of information about Africa.

Ibn-Khaldun (1332-1406) of Tunisia, the father of modern historiography and sociology, also did work in economics, anthropology, and political science. An adventurer, politician, university professor, college president, judge, and diplomat at one time or another, Ibn-Khaldun wrote his famous history of the world during a period of forced exile. In its introduction, “Al-Muqaddamah,” he applied the methods of Aristotle and sought to prove the cause and effect pattern of events.

In so doing, he developed an unprecedented “science of civilization” to explain the rise and fall of societies in their turn.

The first to insist that events do not happen in a vacuum — but depend upon such factors as social customs, food, climate, economics, religion etc. — Ibn-Khaldun dealt extensively with the nature of society, labor conditions, and methods of education. Many of his observations are still timely, but for centuries Ibn-Khaldun’s work was unknown in the West, where the social sciences developed independently along the lines he had indicated. When Western scholars at last gained knowledge of it, they were amazed. Said the twentieth-century historian, Arnold Toynbee:

Ibn-Khaldun conceived and formulated a philosophy of history which is undoubtedly the greatest work of its kind that has ever yet been created by any mind at any time.

Art

The Arabs developed the arts of calligraphy and arabesque. Other important characteristics of Islamic visual art would include as well: geometric form, complex star polygons, tessellations, and linear repeat patterns. Artists and artisans throughout the Empire concentrated on wood and metalwork, inlays of ivory, gold, and silver; glass-making, ceramics, bookbinding, and leather-craft.

Contrary to popular belief, neither the Qur’an nor early Muslim customs in Arabia proscribed the representation of human and animal forms. Whereas among non-Muslim peoples figural representations are normally used in both sacred and non-religious art, in the Muslim world, figural representation has been used only for non-sacred art and architecture. This is based certainly in part on Islam’s assertion that only God is the Creator and worthy of worship, and that idolatry is a sin. Neither of these basic tenets however was associated with the matter of representation of living forms in non-sacred spheres.

And although figural representation plays a much more limited role in Arab-Islamic art than in most other artistic traditions, three exceptions occur — the art of the princes (carved ivories, palace wall paintings), mediums such as ceramics, glassware, metalwork, mosaics and manuscript illustrations, and folk art traditions.  

Architecture

The Arab arts of calligraphy and arabesque adorn one of Islam’s most famous buildings, the Alhambra palace in Granada. Like other Arab architecture in Spain and Sicily, features of the Alhambra influenced both the sacred and secular architecture of Europe. The Arabs’ use of water as a landscaping element in pools and fountains was widely adopted.

Mosques (masjid) were designed as large areas where an entire Muslim community could meet for worship and civic functions. Some of the best examples existing today are to be found in Cordoba, Rabat, Fez, Marrakesh, Kairouan, Cairo, Damascus, Jerusalem, Aleppo, Mosul, Samarra, Makkah, and several Turkish and Iranian cities.
ENGLISH WORDS FROM ARABIC

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Literature

Western literature inherited a rich legacy from the Arabs, whose poetic forms and themes of chivalry strongly influenced early Spanish and French works. Arab traditions can be found in Dante’s *Divine Comedy*, Boccaccio’s *Decameron*, Chaucer’s *Squire’s Tale*, Cervantes’ *Don Quixote*, and Defoe’s *Robinson Crusoe*. Shakespeare’s plays contain more than sixty references to Barbary (Morocco) and his famous Moor, Othello, is thought to be highly authentic.

Impact On Daily Life

Perhaps the greatest influence the Arabs had upon daily life in the West was their introduction of new kinds of agriculture, manufactured goods, technology, and improved means of transportation. Some of this knowledge originated in lands farther east. The art of papermaking, for example, came from China to Samarkand in 751 and was known in Baghdad by 800 A.D.

The Arabs brought improved methods of irrigation to Spain and Sicily and important new plants such as cotton, oranges, rice, and sugarcane. Among Arab innovations in navigation and transportation were the astrolabe, compass, and the lateen sail. With these, Arab traders could travel great distances. Trade was made easier within the empire, for between regions there were no trade barriers such as taxes or import duties. And there was a highly developed banking system with branches in distant cities using a variety of banking practices: use of receipts, checks, and letters of credit. This meant that a merchant who placed money in the care of a banker in Damascus could draw on that money from a banker in Baghdad or some other city far from his home.

Never before, not even at the peak of Greek and Roman expansion, had so many peoples spread over so vast a territory, had such a large range of products available for their consumption. From the late seventh century to the end of the twelfth, the Arab empire functioned much like a free-trade area.

Along with their goods, these merchants carried their religion and culture. To look upon these vast Muslim trade routes as merely the vehicle for the transfer of goods is to miss the point that philosophy was also carried along these routes—philosophies that were to lead to the “European Renais-

To look upon these vast Muslim trade routes as merely the vehicle for the transfer of goods is to miss the point that philosophy was also carried along these routes—philosophies that were to lead to the “European Renaissance” — a renaissance that had already taken place in Muslim Spain some 600 years before it reached Latin Christians in other parts of Europe.

The Arab empire’s greatest music theorist and outstanding musician was a philosopher, Al-Farabi (870-950). It is said that with his lute-playing Al-Farabi could make the same audience laugh, cry, or fall asleep. His books on music remain the subject of study, and ancient chants attributed to Al-Farabi are still sung.
The Crusades increased the already extensive contact and trade between European Christians and Arabs. In exchange for wood, iron, and other raw materials from the West, the Arabs furnished cotton cloth, muslin, satin, rugs, tapestries, metal-wares, paper, ceramics, perfumes, and spices. Many of these items became so common in the West that their Arab origin has been largely forgotten. English words derived from Arabic indicate the great variety of Arab contributions to the West, from algebra and almanac to sherbet and magazine.

As a result of this flourishing exchange, standards of living rose throughout the Empire and in Latin-Christian Europe. This rising standard of living in Latin Christendom, together with contact with Arab learning, and Christian church reforms that synthesized faith and reason, lead to the growth of learning in Christendom that was to become the European Renaissance.

The wealth and power of the medieval Arab empire declined many centuries ago, but its contributions to civilization remain as a basis for the Renaissance in Latin-Christian Europe and subsequent Western development. The same factors which led to past achievements can be seen in the Arab World today — a vast area unified by language, history and culture, and richly endowed with diverse human and natural resources.

The Sabians were star worshipers in Mesopotamia who incorporated Greek culture and learning at the time of Alexander the Great with their own extraordinary knowledge of the stars.


5. The modern academic robe is another Arab contribution to the West. Most of the medieval scholars were Arabs who wore wide flowing robes, and in time these robes became the mark of any scholar.


8. Canon is the origin, and has the same meaning as the English word “canon” — rule, sacred writings, body of laws, basic rule or principle, officially accepted, fundamental and essential.


11. See The Genius of Arab Civilization: Source of Renaissance, p. 237, where students will notice that the map seems to be upside down and will wonder why Al-Idrisi put Africa at the top of the world. A smaller picture of the map can be found in Hitti, p. 611.


15. See “To Pray in Jerusalem,” in the section on Jerusalem.


NOTES
3. Syriac, a dialect of Aramaic (the language of Jesus) is spoken and written today by the Assyrians and other groups in Iraq, Syria, Lebanon, and elsewhere.

Arab physicians initiated the practice of making detailed bedside observations, keeping these records so that other physicians could benefit from their experiences.