

Commerce and Travel



MUSLIM LANDS AND EUROPE

THE GEOGRAPHY OF EXCHANGE IN THE OLD WORLD

Think of some common consumer items you have at home, whether foods, clothing, furniture or decorative items. Many of them have come into your home through trade with other countries and other cultures, often from faraway places. When we think about the history of trade, we may think about the age of European exploration, of Columbus, Vasco da Gama, Magellan and others who became fabulously rich bringing exotic luxury goods from beyond the seas. While these explorers helped close the global circle of trade, the history of world trade began long before European ships first touched distant shores in the 1400s. Many centuries before European exploration, traders from many different cultures began transporting goods like rice, pepper, vanilla, oranges, pineapples, cotton and silk, as well as plants used for medicines and perfumes, and jewels of all kinds, across the lands and seas of the Eastern Hemisphere.

THE OLD WORLD

The Eastern Hemisphere is often called the Old World because the continents of Africa, Europe and Asia, with some of its islands to the southeast, were the main stage of history for thousands of years before the rediscovery of the Americas by Europeans. The label “Old World” represents the point of view of a specific group of cultures. The three continents of the Old World form the largest connected landmass in the world. They are linked together by a land bridge, the Arabian Peninsula in Southwest Asia, in the region that is also called the Middle East.

Asia, Europe and Africa are surrounded by interconnected rivers, seas and oceans. They are bordered by the Atlantic and the Pacific, and connected by the great basin of the Indian Ocean, linking all of the Old World land masses but Europe. The Mediterranean links Europe, the Atlantic Ocean and Africa, and the Arabian Peninsula links the region with Asia and the Indian Ocean. Rivers and seas, like the Red Sea the Black and Caspian Seas, and the North Sea extend the reach of the waters deep into Asia and Europe. Great rivers on each continent link the continents’ interiors with the coasts and seas.

You probably seldom see a map of the entire Eastern Hemisphere in your textbooks. Many maps show only the regions surrounding each major civilization that you study, so it is easy to forget how each of these cultures may have been linked to others. Trade routes developed by merchants from each civilization are usually shown as colored lines that run off the edge of each regional map’s border, like spaghetti falling off the rim of a dish. Because of these fragmented maps, you may not notice how hemispheric trade by land and by sea gradually expanded from ancient through medieval times, from before 500 CE to 1500 CE.



ANCIENT AND MEDIEVAL ROUTES

You have learned that Central Asian and Chinese merchants, tribes and rulers gradually extended the Silk Road until it reached toward Southwest Asia and the Mediterranean as early as Roman times. You probably are only vaguely aware of the ancient trade links between Mesopotamia, India, Arabia and East Africa, whose routes reached overland and along the Indian Ocean coastlines. Ancient Europeans, Central Asians and Greeks plied trade routes across the Asian steppes, deserts and forests. It is difficult to know how regular this traffic was, but the spread of coins, similar products and artistic styles is good evidence of contact. The growth of cultures such as those found in Egypt, China, India, Greece, Rome and Persia helped to expand trade and link distant regions. Ideas, technologies and goods traveled across these routes at the pace of animal and human footsteps, and by the power of wind against sails.

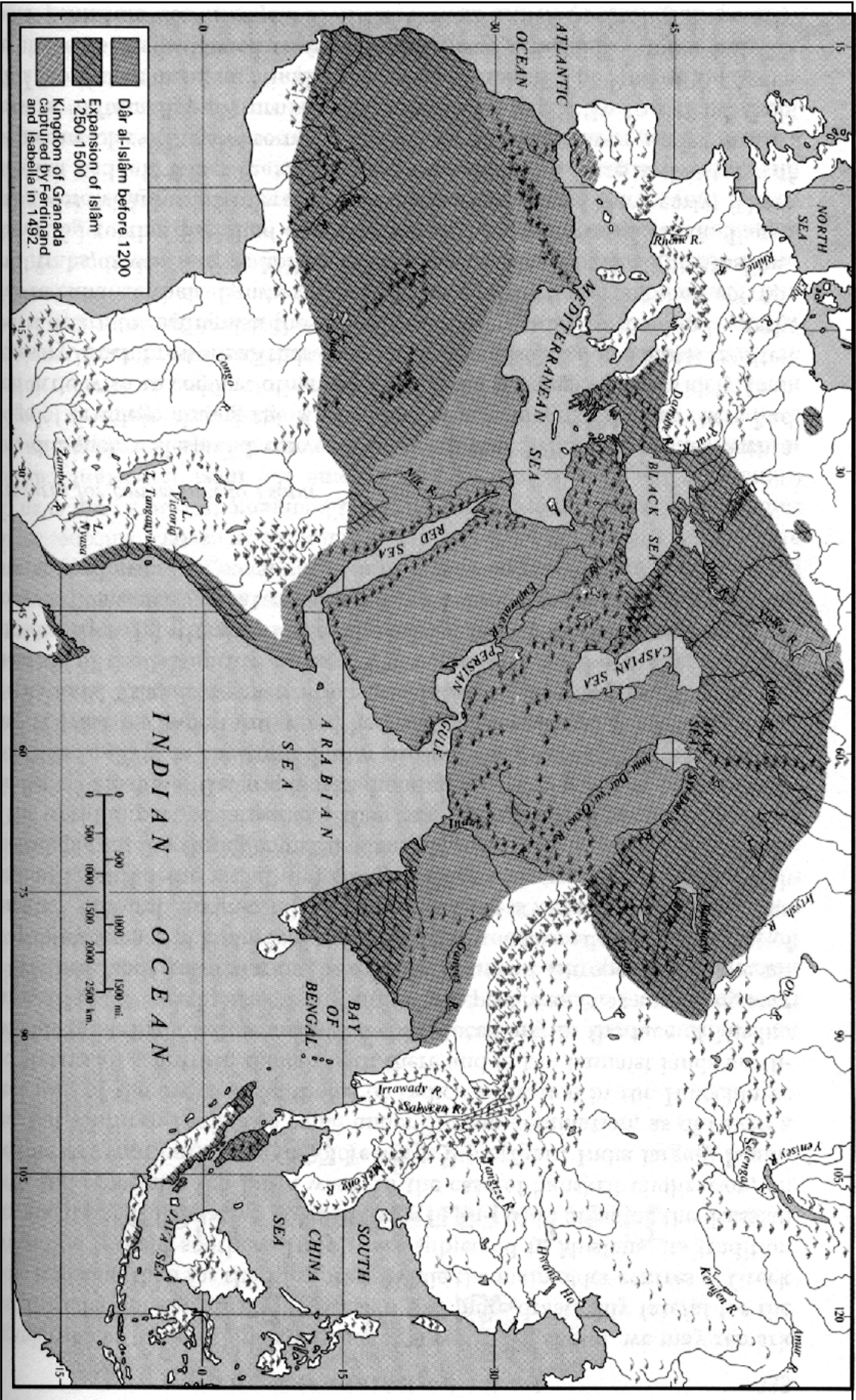
Rapid expansion of the territory under Muslim rule during the 7th century, followed by the spread of Islam in the following centuries, had a tremendous impact on this already ancient hemispheric trade. By 750, a broad swath of Muslim territory reached from the Atlantic Ocean, across Southwest Asia and up to China's border with Central Asia. These lands, often called the Muslim "heartland" are nearly centered on the cities of Makkah and Madinah, where the first Muslim community was established by the Prophet Muhammad. As Islam gradually spread among the population, a network of cities developed with the expansion of Muslim culture and trade. Baghdad, capital of the Abbasid state from the 8th to the 13th century, was a city at the crossroads of East-West trade. Cities in Spain and North Africa, as well as Cairo, Alexandria and Damascus were centers where trade from Africa, Arabia and parts of Europe came together. Constantinople, until 1453 a Christian city, held the link between the Black Sea and the Mediterranean, with its important routes into Eastern Europe. By the 14th and 15th centuries, Islam had spread deeper into Africa and Asia. It now included the silk routes into Central Asia and China, and the maritime routes of the Indian Ocean basin. In Africa, Islam spread with trade along the East African coast and across the Sahara into West Africa, where cities along the Niger bend became centers of trade and Islamic learning. The Mongols, who first wreaked disaster in their invasion of Muslim lands during the 13th century, accepted Islam and spread the faith and culture deep into Central Asia. Around the same time, merchants, scholars and religious travelers continued to spread Islam along the sea routes of the Indian Ocean into Southeast Asia's spice islands.

Muslim merchants maintained contacts with traders belonging to many religious and ethnic groups from the 8th century on. Italian merchants from Venice, Genoa and Pisa traded with Muslims and Byzantines in eastern Mediterranean, or Levantine, ports. In Asia Minor, Constantinople—called Istanbul after 1453—held the gateway to the rich trade of the Black Sea, Russia and eastern Europe via the Danube, Dnieper, Volga and Don Rivers. Products from as far afield as the North Sea and the sub-arctic forests made their way along these routes. Via the port of Trebizond and the Volga-Don River, products of the northern silk routes and the western steppes could be loaded at the Black Sea and shipped to Mediterranean ports. Thus it is no wonder that during his travels north a Muslim diplomatic envoy, Ibn Fadlan, observed the habits of the Vikings in the 10th century, and that Abbasid gold coins have been found in Norway and Sweden. Through this route, too, Hanseatic trade cities in Northern Europe, like Hamburg on the North Sea, found a link with eastern wealth and culture.

Eastern Mediterranean and Red Sea ports funneled trade toward the Middle East and Europe from the Indian Ocean basin—including South Arabia and East Africa, India, Southeast Asia and the Far East. North African coastal cities provided outlets for the caravan routes into sub-Saharan Africa, with their precious cargo of African gold. Alexandria in Egypt linked African, Arabian and Indian Ocean trade routes.

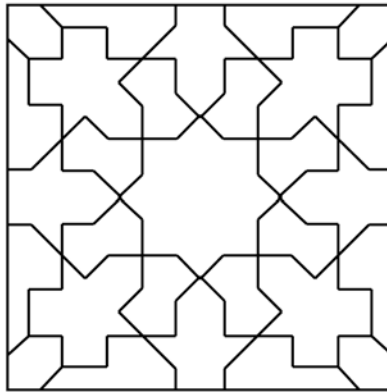
Trade, of course, does more than earn money and move goods. Trade stimulates travel and contact among strangers. For the hope of economic gain, traders routinely risk life, limb and fortune. They overcome barriers of language, religion and culture. In the process, they become transmitters of wealth, but also of products, ideas, technologies and knowledge. Muslim traders shared a common language (Arabic) and a religion (Islam) that includes universal beliefs, moral values and a system of business and social laws. These common features helped bridge the gaps between geographically distant ports and people. Such features increased the flow of these secondary benefits from trade.

EXTENT OF MUSLIM TERRITORY, 1250-1500 CE



What links existed between Muslim and European civilizations? Weren't they distinct, different, even opposing cultures? A student of history has to understand that it does not matter how different or how opposed they were. What really matters is that they came into contact with one another. There is no impassable barrier of mountains or sea between European and Muslim regions. The two are, geographically speaking, neighbors. They have experienced a wide variety of contacts over the past 1400 years. These contacts included trade, diplomacy, warfare, marriage, learning, arts and technological exchange. Through extended contact, Muslim and European cultures have influenced each other. That stream of influence has not always flowed in the same direction, and at times, it has flowed both ways at the same time.

There is plenty of historical evidence showing that opposition between Muslims and Europeans was only part of their relationship. Peaceful interaction between Muslims and Europeans, however, has been frequent and regular. Historical examples of trade, exchange of ideas and technology, and travel between Muslims and Europeans are plentiful for the centuries between the rise of Islam and the Renaissance, and far beyond—well into our own times. Sharing common borders, common waterways and connecting trade routes was a fact of life for Europeans and Muslims from the rise of Islam in the 7th century to the present. The fact that the two share many common elements of religion and culture has deepened the bond enormously. To emphasize and study what is common between the two civilizations is not to ignore their differences or deny the competition between them. Its goal is to discover another layer of cultural experience, another side of a multifaceted story.





THE GROWTH OF CITIES IN MUSLIM LANDS AND EUROPE, 600–1500 CE

Think of a fabulous city you may have heard about in folk tales and fairy tales. How about the Chinese Emperor’s capital in the story of the mechanical bird, *The Nightingale*? One of the Baba Yaga stories tells of a fabulous carpet made in Samarkand that turns into a garden when unrolled. Have you heard anyone say they would even go to Timbuktu and back to get something they really want? Did you know that Hollywood is called a “Mecca” for moviemakers? What was Sindbad the Sailor’s hometown? These places are just a few of the hundreds of cities that featured in stories known around the world. These cities have existed—some for thousands of years—and have been woven into the fabric of the world’s dreams.

CITIES AND THE RENAISSANCE IN EUROPE

It is well known that the European Renaissance was preceded by the rise of towns and cities from the 12th century on. Although trade into much of Europe had slowed to a trickle after the fall of Rome, some Italian towns maintained trade links with Muslim and Byzantine merchants at Mediterranean ports. This trade consisted of raw materials from Europe exchanged for luxuries like jewels, glassware, and textiles. In a development partly linked to the Crusades and partly to advances in mining, crafts and farming, European demand for eastern goods began to grow. Historians agree that the increase in urban activity would not have happened without the expansion of local, regional and long-distance trade. For European merchants, long-distance trade involved the flow of goods from North Africa, the Levant (eastern Mediterranean), Constantinople, and from overland and sea routes to China, India, Africa and the Spice Islands that were funneled to the Mediterranean. Most of this trade passed through the hands of merchants in Muslim lands, including much of Constantinople’s trade.



A European walled town.

Increased agricultural production, mining and manufacturing are also related to the rise of towns in Europe. These developments were helped by improved tools and techniques. Historians have identified improvements in the plow, in mining equipment, in use of water power and textile manufacture, among others. Some of these inventions and techniques originated in Europe, while others were introduced from elsewhere—even as far as China and India, by way of contact with Muslim lands. Some of these advances were introduced directly from Muslim lands such as Spain, Sicily, or certain Mediterranean ports. European towns grew as surplus food became available to feed city populations, and the attractions of town life brought a steady stream of migrants. In Europe, regular fairs increased demand for goods, trade of all kinds grew, and neighborhoods of migrants began to settle around the old town walls. With the growth in city population, education also received a boost, as newly wealthy families demanded practical and literary education for their children. Schools and colleges took root and expanded in some European cities during the late medieval period—around the 12th century. Growing wealth also produced demand for craftsmen, artists, lawyers, clerks, and other professionals. Together with the people who ruled the cities and the growing nations, these groups expanded the range of cultural expression, becoming patrons of artwork, buildings, literature, music, and scientific work. The period called the Renaissance in Europe is in many ways the sum of these changes and developments. Before these changes came to Europe, however, the growth of cities and flowerings of culture took place in Muslim Spain, in North, West and East Africa and in Asia. The growth of these cities was linked to agriculture, trade, and the spread of religion and learning. These advances established a level of civilization upon which Europe was able to draw when it was ready to extend its reach across the hemisphere.

STATES ARE NOT THE WHOLE STORY IN MUSLIM HISTORY

The role of towns has often been neglected as a factor in the development of Muslim civilization. Discussions of Islamic history in world history surveys typically follow the story of the rise of Islam, the development of a “Muslim Empire” governed first by the Prophet, then by his successors, the four Rightly-Guided Khalifahs, followed by the Umayyad and the Abbasid dynasties. Students learn of the rise of Islam in Arabia, the astonishing expansion of the Muslim state, and its “Golden Age” under the Abbasid rulers and the Umayyads of Spain. The story becomes more difficult to follow after the breakup of unified rule and the destruction of Baghdad by the Mongols in 1258. In textbooks at least, the story thread is dropped until the 15th century, with the rise of the Ottoman, Safavid, Timurid and Mughal Empires. These and other Muslim regions’ decline coincides with the rise of the West and makes up the “end” of the story.

Political history, however, is only a small part of the story of Muslim civilization. Leadership of a society is important, indeed, but societies have many types of leaders. Even as early as 750, there were signs that unified rule—one of the main characteristics of an “empire”—was breaking up. Muslim Spain, or al-Andalus, left the fold. Egypt soon followed. By the end of the 10th century, there were so many different ruling groups that casual students cannot keep up with them. To understand the gaps in the usual “story” of Muslim civilization, it helps to ask a question using historical comparison:

If the most important aspect of Islamic history was the history of states, then why did Muslim civilization—unlike Roman, for example—outlive the breakup of the state? Why did Muslim culture clearly continue to develop, and why did Islam continue to spread far beyond the borders of the Umayyad and Abbasid states during this time?

The end of the unified Muslim state was an important event, but it did not bring about the end of Muslim civilization, or of Islam, the religion. Long after 750 CE, long after 1258 CE, Muslim civilization and culture continued to thrive and develop, and Islam itself continued to spread into Central Asia, Africa and Southeast Asia. In remote places, recognizably Muslim cultures sprang up. In the heartland, city and countryside continued to develop cultural forms that have common, “Islamic” characteristics. Common values held by members of these societies can be recognized in the way the people there lived and organized their society, and in what they produced. We can identify the influence of Islamic values and beliefs in the artifacts and literature of Muslim culture.

ZOOMING IN ON HISTORY

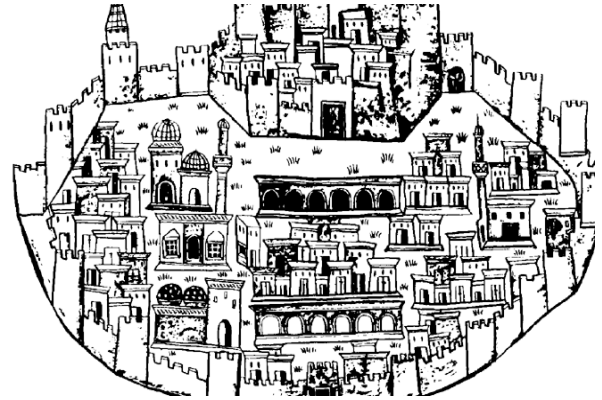
Unity and Diversity

Comparing Western and Muslim Civilization

In its diversity within unity, the Muslim world can be compared to Western civilization. Though Europe consists of diverse landscapes, different countries, kingdoms, and principalities, European culture developed into something commonly called Western civilization. For example, historians speak of the Renaissance as a period with common characteristics in many different countries. These varied countries, cities and kingdoms did not belong to one empire. In fact, they were often enemies, or at least competitors. Even today, many contrasts exist among the languages, countries and cultures that make up Europe, or the West, just as these contrasts exist in the Muslim world. In both Muslim and Western civilization, two factors have been very influential in creating a common culture and identity among diverse people—religion and the development of cities as cultural centers.

CITIES AND THE SPREAD OF ISLAM

The development of Muslim civilization is closely linked to the growth of urban centers. Historian Richard Bulliet states, “*Cities and urban culture are the hallmark and glory of medieval Islamic civilization.*”¹ The growth of cities during the early centuries of Muslim rule is closely related to the spread of Islam among the population. In order to understand this, we need to understand an important historical point: **there is a difference between the rapid expansion of territory under Muslim rule and the gradual spread of Islam among the population in those lands.**



A Turkish Muslim city.

The rapid expansion of the area ruled by Muslims can be traced on a map (see page 9). Boundaries and shading on a map, however, do not tell the story of individuals, religious groups, towns and cities in the shaded area. The false perception that Islam was spread by the sword calls forth a picture of forced conversions at sword point. It implies that people in the Byzantine and Persian empires immediately converted to Islam or lost their lives. There is no historical evidence to support this idea, and a great deal of evidence that directly contradicts it. Great battles took place during the spread of Islamic rule, but one must remember that there were three major forces battling for hegemony over the region. The Sassanid Persians, who were Zoroastrians, and the Byzantines, who were Christians, had been fighting each other long before the Muslims joined the power struggle. While all three groups used warfare to protect themselves and to expand their territory, only the Muslims had a code of conduct that protected civilian rights and religious tolerance. Documents from the 7th century show that Muslim military leaders—including one of the most famous—put this code into practice in their treaties with the cities that came under their rule:

“*In the name of Allah, the Compassionate, the Merciful. This is what Khalid Ibn al-Walid would grant the inhabitants of Damascus if he enters: He promises security for their lives, property and churches. Their city wall shall not be demolished, nor shall any Muslim be quartered in their houses. We give them the pact of Allah and the protection of His Prophet, the Khalifah and the believers. So long as they pay jizya tax, nothing but good shall befall them.*”

This code was based upon the *Qur'an*, and supported by the *Sunnah* (the record of Muhammad’s words and deeds). Because of these 7th-century sources, Muslims tended to treat defeated populations better than most victors. Additionally, forced conversion to Islam is strictly prohibited by the *Qur'an*. As Islamic rule expanded the size of Muslim territory, by Islamic law, anyone who accepted Islam had to do so by free choice. *La ikraha fid-din*, is the famous order in the *Qur'an*, chapter 2, verse 256: “*Let there be no compulsion in religion.*”

Many sources show that Jewish and Christian cultures continued to exist under Muslim rule in Europe, Southwest Asia and North Africa, as they exist even today in Muslim countries. In Persia, India, China and Southeast Asia, Zoroastrians, Hindus, Buddhists and members of other religions continued to live side-by-side with Muslims. Many written sources show that non-Muslims served as government officials, physicians, translators, and held many other positions of high status in the Muslim state. In fact, it took several centuries for Islam to become the majority religion in most areas under Muslim rule. To track the spread of Islam among the populations, several historians have looked for evidence that can give clues about when and how people chose to accept Islam. Much of this evidence—often literary and administrative documents—is tied up with the growth of cities in the early centuries of Islam.

1. Richard Bulliet, *The View From the Edge*, (New York: Columbia University Press, 1994), pp. 68-9.

MUSLIM CITIES DEVELOPED FROM VARIED URBAN TYPES

Summarizing evidence from several decades of scholarly work on Islamic history, Richard Bulliet writes: “Historians agree that cities grew phenomenally during the early centuries of Islam.”² This growth varied in different kinds of cities, and at different times.

Garrison cities like Kufa and Basra in Iraq, and Ramala and Qinnasrin in Palestine and Syria began as military camps. They were much like the Roman garrison towns in Europe—and like the Roman cities, they served as bridges over which culture crossed into new territory.

The population of Arab garrison towns consisted of soldiers who had participated in the military conquests, and who were stationed there to keep order. Islamic law does not allow troops to be quartered in civilian homes. Treaties stated that Muslim soldiers would not occupy a defeated city, so garrison towns grew up outside the borders or walls of the town like a suburb, or some distance away, as a neighboring town. Garrison towns grew when the Arab soldiers settled, bringing their families and other members of their tribe to live with them. Various parts of the town housed members of different tribes, and were named after them.

The next phase of growth happened as people from the surrounding region—now under Muslim rule—became attracted to the town. One reason is familiar to students of American history. As in a boomtown, people came seeking opportunities. Workers were needed to serve the needs of the new Arab settlers. Builders, bakers, metalworkers, tailors, and merchants came seeking jobs and markets. Some of those who came seeking jobs accepted Islam after a while. There is also evidence that migrants came to these towns because they had accepted Islam already, or intended to do so. Individuals from recently absorbed areas gained some knowledge about Islam. They chose to break from the religious traditions of their family and society. Some may have cut off family ties as a result. If they stayed on in their homeland, they may have had problems marrying, or would perhaps have felt pressure to return to their former religion. Most important, however, a Muslim who remained distant from other Muslims would be cut off from Islamic practice and from gaining more knowledge. Access to the *masjid* (mosque), to scholars in religious disciplines, to marriage opportunities, prestige and advancement as a member of Muslim society could only be found during this early period near the Arabs and their centers of power. Migration proved to be a popular choice. Some of those new Muslims became clients, or something like adopted members of an Arab tribe. This new relationship lent them status and protection. This type of growth explains the rapid rise of Iraqi cities like Basra and Kufa during the early period.

After 750, Baghdad grew rapidly as the capital city of the Abbasids, but it functioned as a garrison city as well. The famous Round City contained the headquarters of the *khalifah* (caliph) and some of his troops. On the banks of the Tigris River, soldiers who had helped the Abbasids rise to power settled on land granted to them. At the foot of the Round City’s walls, Baghdad grew into a great metropolis attracting trade and talent from far and wide. By 900 CE, it was one of only a few cities in the world with over one million people. Many of these immigrants were new Muslims come to make their mark in the world, and to be “where the action was.” A considerable number of these migrants or their descendants did become famous. They became prominent religious scholars like al-Bukhari, mathematicians like al-Khwarizmi, physicians like al-Razi, and writers like the East African essayist and courtier, al-Jahiz.

Farther west, Cairo, Egypt was founded by the Fatimids on the site of the former Arab camp called Fustat on the Nile. Under the Fatimids, it became a major city and cultural center after 969 CE. Kairuoan, (in today’s Tunisia), and Cordoba, *al-Andalus* (Muslim Spain), experienced similar growth as garrison towns or capitals built on new sites or near an older, existing city.

2. Bulliet, p. 71.

As these cities developed, *masjids* (mosques) were built, new suburbs and quarters appeared, markets for crafts and trades prospered. Amenities and necessities for the people, the decoration of public and private spaces, and styles of clothing and building reflected patterns of an Islamic lifestyle. Arabic language spread through its use in administration, religious scholarship, and education. With the growth of Arabic scholarship and literature and the development of a respected, cultured and wealthy Muslim elite, a basic core of Islamic learning spread throughout the region across the network of towns and cities. Tastes and styles, politics and literature were based on a blend of Islam and local cultural traditions. Social customs like seclusion or veiling of upper class women became associated with Islamic lifestyles over time, but varied from one Muslim region to another because of their roots in pre-Islamic local culture.

Ancient cities like Alexandria, Jerusalem, Damascus, Aleppo, and Samarkand are another type of city that was influenced by Islam as Muslim civilization expanded. These are among the world's oldest cities. Jerusalem, of course, is one of three cities sacred to Islam—along with Makkah and Madinah—because of their association with prophets. Damascus, an important trade and cultural center, became the third capital city of the Muslim state, after Kufa and Madinah. Alexandria, Egypt had been a great center of ancient learning, housing a famous library and monuments like the great lighthouse of Pharos, one of the seven wonders of the ancient world. Aleppo was one of many Arab cities associated with major caravan routes, including the ancient Silk Road that linked with Rome. Samarkand, in Central Asia, is a trade and agricultural center dating to before Alexander the Great, who married a princess of Samarkand.

Many of these well-established cities came under Muslim rule through treaties. Rapid growth and migration happened only gradually in most of these ancient cities. Acceptance of Islam by the majority also occurred gradually; their populations consisted of a varied group of Christians, Jews, Mazdeans and others. Nonetheless, these cities enjoyed positions of high prestige, and were dignified by the building of great places of worship like the Dome of the Rock in Jerusalem and the Great Mosque of the Umayyads in Damascus. They also soon emerged as centers of Islamic learning, science and culture. Historical sources show that as these cities emerged as centers of Islamic scholarship, a strong presence of Christians and Jews developed who were active in their administrative, cultural and religious life. Translation of classical knowledge into Arabic began in the libraries of these cities. This significant Christian and Jewish presence continues to the present day. It bears witness to tolerance toward other monotheistic faiths that is written into Islamic law, and to the successful integration of a diverse population into Muslim society.

Military outposts, ports and caravan cities were the third type of cities that played important roles in developing Muslim civilization. These developed in regions farther away from the center of Muslim territory. For example, in the foothills and valleys of Iranian mountains there were numerous fortress towns in pre-Islamic times. After the Muslim conquests, groups of Arabs and others associated with the military settled there. As Islam spread during the first three centuries after Muhammad's death, these towns became magnets for rural-urban migration. Walls and population expanded as much as ten times, some reaching about 200,000 people. As in other Muslim cities, *masjids* (mosques), schools and markets became part of a jigsaw puzzle of neighborhoods grouping similar professions and crafts, and people of similar ethnic, family and religious origins. The shape of the city, its architecture and its social patterns melded Islamic and regional influences. They took their places as centers of culture in their region, and as links in a far-flung chain of urban development that attracted immigrants and played an important role in spreading Islam in the surrounding countryside. Expansion of trade routes in Asia and Africa from the 9th to the 15th centuries brought Islam to many of these regions. The monsoon winds required long stopovers for merchants, encouraging the growth of permanent settlements with their own *masjids* (mosques), judges, and comforts of home. In the central Muslim lands, in Spain, in Asia and in Africa, the life of these cities was more important for the spread of Islam and the development of Muslim culture than events in the courts and palaces of Muslim rulers.

HISTORIANS' VOICES

Historical evidence for the importance and role of cities comes from local histories and biographies, Muslim geographers and archeological studies of artwork and architecture. Many historians writing in the past twenty years agree that cities were vital to the development of Muslim civilization. Here are a few samples of their conclusions for comparison and study:

S.M. Stern: “The first Islamic centuries saw a splendid development of urban civilization, the like of which was possessed by no other contemporary civilization, China and Byzantium not excluded—not to speak of Latin Europe, where urban life was in almost total eclipse.”³

Ira Lapidus: “The emergent strength of Islam was reflected in the social order of the cities. The *ulama*, or religious leaders, had emerged as the effective spokesmen and representatives of urban communities.”...“The *ulama* were diffused throughout the society. Through them all classes and groups found common social affiliations.”⁴

George and William Marcais: “...the shape of the Islamic city was determined...in part by their being Islamic; or in other words, by the fact that the city is necessary for Islam, since it is only there that the virtuous life as Islam conceives it can be fully lived. The congregational mosque in the centre of the city, the religious schools beneath its shadow, the...suqs,...the residential quarters...the cemeteries and shrines of saints outside the walls: all these, they suggested, existed and were where they were because the city was a Muslim city.”⁵

WHO HELD LEADERSHIP ROLES IN MUSLIM CITIES?

In the quote above, Ira Lapidus brings out an important point about the leadership of cities in the Muslim world. *Notables*, or elites, are other names for civic leaders. Notables include merchants, landowners, military and religious leaders—those people who have much of the wealth, power, often knowledge, and influence. We know about many of these people in Muslim cities because we find local histories as well as biographical dictionaries all over the Muslim world. Notables contributed to the cities’ stability, strength and independence even when the central government was weak or divided. In some cases, such as the famous West African city of Timbuktu, scholars actually governed the city at times. The learned class, or *ulama*, included judges, imams, and scholars of many disciplines. This extremely important group is discussed in a separate lesson. (See “The Role of Scholars in Muslim Civilization” in Segment 2 of this unit). The *ulama* enjoyed much prestige among the people, and were often in communication with scholars in other cities. Prominent Muslim cities were magnets for students and other scholars. For example, Ibn Battuta, the Moroccan scholar who traveled 75,000 miles in search of knowledge, tells us about attending lectures and acquiring certificates from scholars in Damascus and Makkah, and he served as a judge in Delhi, India, as well.

The role of notables in the Muslim cities encourages historians to look beyond the central government and ruling groups in Islamic history to understand why Muslim civilization developed so quickly and lasted so long as a unified culture. The development of neighborhoods and institutions in the cities also helps explain why and how Islam has remained vital to the present day, even in the face of enormous political, social and economic upheaval. The history of cities also helps explain how Muslim culture spread within the Muslim world and how it influenced other cultures in Africa, Europe and Asia. These contacts included the spread of language and religious beliefs, products and technology, literature, science, and even fashions. The attractions of urban life and the characteristics of cities tell us much about the values of the people who lived there. They give us evidence of common values and cultural expressions shared among many cultures. The gifts of a dynamic city seldom remained secret, but often traveled far and wide to be shared.

3. S.M. Stern in Hourani and Stern, eds., *The Islamic City: A Colloquium*, (Oxford: Bruno Cassierer & U. of Pennsylvania Press, 1970), p. 3.1

4. Ira Lapidus, *Muslim Cities in the Later Middle Ages*, (Cambridge: Cambridge University Press, 1984), p. 7.

5. Quoted in Lapidus, p. 186.



STUDY QUESTIONS AND STUDENT ACTIVITIES

1. How were the expansion of Muslim territory and the spread of Islam related to the growth of cities in Muslim lands? Discuss various types of cities in your answer.
2. Use your textbook chapter on the rise or growth of towns during the European Middle Ages to make the following in-depth comparisons:
 - Compare the causes for the rise of towns and cities in the Muslim world and in medieval Europe.
 - Compare the roles of civic leaders in Muslim cities and in European ones during medieval times. Who played leading roles in the cultural life and government of the city?
3. **ROLE PLAY:** Write a letter from a migrant to a Muslim city of your choice, explaining to the family back in the village why you have emigrated and whether you enjoy your new life. Write a similar letter by a serf who has escaped from the lord's manor to find a new life in one of Europe's growing towns. Each letter will describe how the migrant is doing, what the city has to offer, and what problems the migrant has encountered.
4. **MINI-RESEARCH PROJECT:** Using an atlas, online encyclopedia or other source, gather information about **one city each** in a Muslim land and in Europe that was important during the period from 600-1500. Gather the following information, to fit on one page, or on one or two screens in a computer-based presentation:
 - ❖ name of the city and its location on a map (including modern country name)
 - ❖ a famous landmark in the city and its original purpose (with graphic if possible)
 - ❖ a famous person from the city with birth/death dates, and mention a famous deed
 - ❖ important activities of the city (trade, government, learning, etc.)
 - ❖ a famous product made in the city
 - ❖ a one-sentence summary of a significant event related to the city





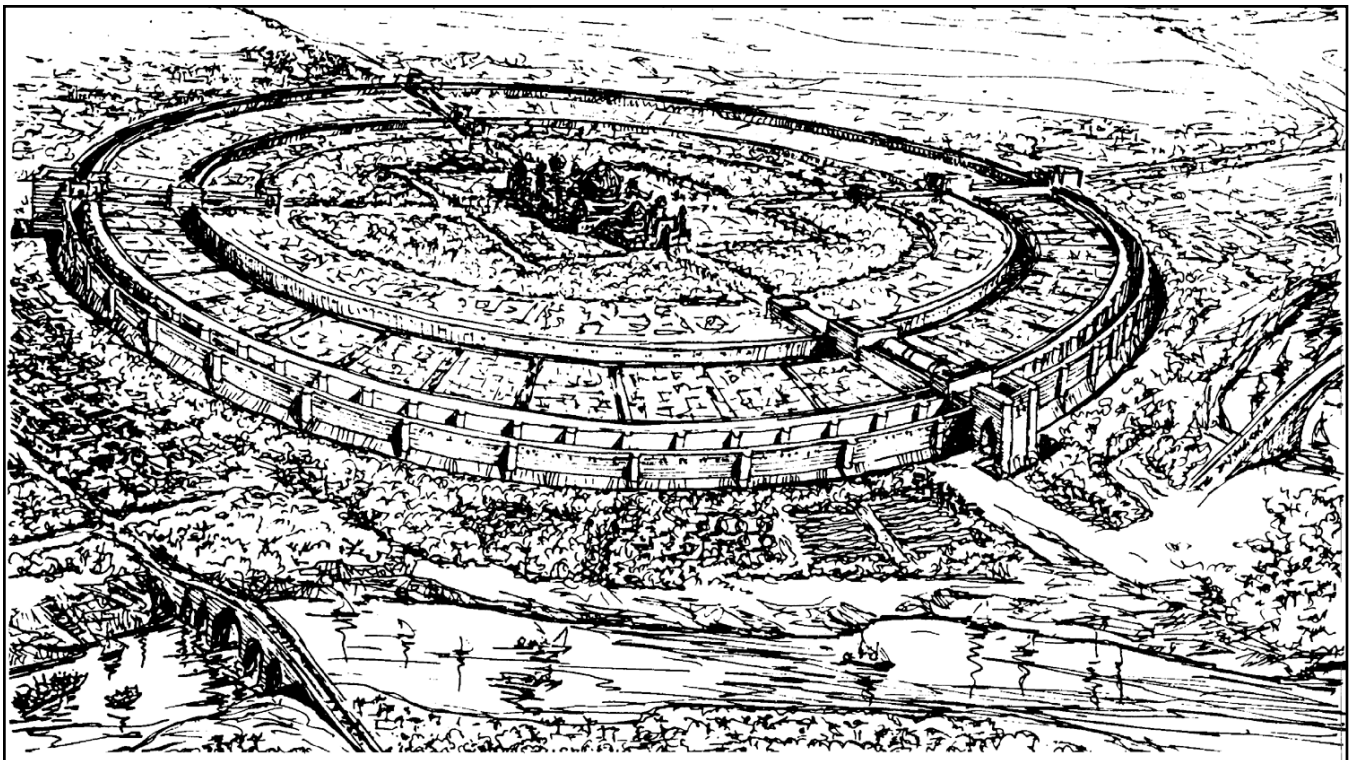
BAGHDAD

CENTER OF WORLD TRADE

The tremendous mingling of cultures centered around Muslim territory helped bring about one of the greatest periods of intellectual and economic expansion in human history, beginning during the 8th century. For over a hundred years, the hub of this activity was the Abbasid capital city of Baghdad, built by the Caliph al-Mansur. Begun as a unique government complex, the Round City, or the City of Peace (*Madinat al-Salam*), it developed into one of the most populous, richest and exciting cities in the world at the time. The Round City's triple walls originally held offices, residences and markets, with the Caliph's palace and a great *masjid* (mosque) in the center. Later, the markets were moved out, and suburbs, gardens, markets and new palace districts grew up at the foot of the Round City's walls as migrants poured in to seek their fortunes. Situated between the Tigris and the Euphrates, a network of canals between the two rivers provided both water and transportation.

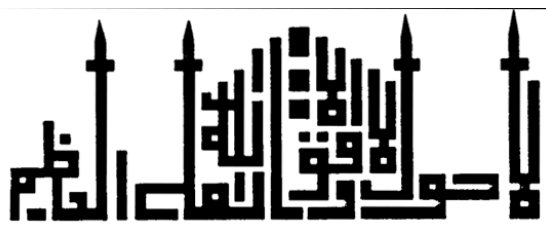
On the river itself, barges brought goods unloaded from ships moored at ports like Basra, near the rivers' mouth on the Persian Gulf. Ships from the Indian Ocean brought silks, porcelain, spices, ivory, gold and slaves up the Persian Gulf and along the Tigris River to the greatest bazaar in the world. Caravans followed overland trade routes from all directions, bringing forest products like furs, honey and wax, gems like lapis lazuli, turquoise, pearls, amber and rubies, and agricultural products like livestock, indigo, hemp and cotton. Perfumes, spices and cosmetics included jasmine and rosewater from Persia, frankincense from Arabia, and musk, ambergris and sandalwood from various lands. Samarkand, one of the first cities on the ancient Silk Road to unveil the Chinese secret of making paper, produced their finest grades of paper for export. And although the secrets of silk manufacturing had been discovered in the west, during Baghdad's reign as a world emporium, the silk trade was concentrated in Asia. While supplying the needs of the caliph's court and Baghdad's other citizens, merchants further increased the wealth of Baghdad by paying taxes—creating a degree of wealth seldom witnessed before.

Baghdad, showing the Round City complex.



LIFE IN BAGHDAD

By the time al-Mansur's grandson, Harun al-Rashid ruled (786-809 CE), Baghdad had become the fabled city of the *Thousand and One Arabian Nights*. Well known for its wealth, cleanliness, and flair, Baghdad's luxurious life style was best witnessed at Harun al-Rashid's court. Harun's wife, Zubaydah, set fashions for the city by wearing furs in the winter and jewel-studded shoes. Like the Chinese and Byzantine courts, Zubaidah and her court were fascinated by "automata" (fanciful mechanical devices). One of her most famous contraptions was a tree filled with mechanical chirping birds made of pure gold. For her son's wedding, she arranged for the bridal couple to be showered with pearls as they sat on what appeared to be a woven Persian carpet. When one got closer, they could see that the "Persian Rug" was not made of woven threads at all. It was constructed of gold, studded with jewels!⁶



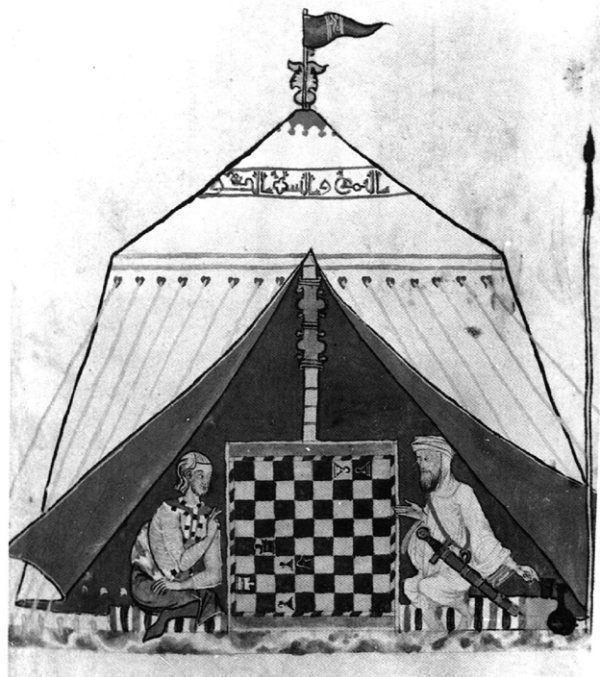
6. Robert Pearson and Leon E. Clark, eds., *Through Middle Eastern Eyes*, (New York: Praeger, 1975), p. 138.

ZOOMING IN ON HISTORY

Gifts to be Remembered

By the time of Harun al-Rashid, the 8th-century Caliph of Baghdad, links between Europe and the Muslim world were extensive. Muslim and Christian rulers were exchanging ambassadors and gifts in order to seal alliances. For example, Harun had developed a friendship with the European king Charlemagne, and through their joint efforts, an inn was founded for Christians who were making the pilgrimage to Jerusalem. Additionally, a market for Christian merchants and pilgrims was set aside for their use while in the Holy Lands.

Two memorable gifts were given to Charlemagne by the Abbasid *khalifah* Harun al-Rashid. He sent an elephant from Baghdad, and he gave Charlemagne a set of figures used for playing a game new to Europe, called chess. In this game of military strategy, when one player defeated and took the King from their opponent, they called out "Al-Shaikh Mat!" which means "The King is Dead". Today, we call out the Latinized version of those words: "Checkmate".⁷



Centuries later, a similar stir was caused when, on September 20, 1414, a tribute gift arrived in China from the Indian state of Bengal. This gift to the emperor Yung Lo was an animal which had never before been seen in China; a giraffe. No other gift to China had brought such excitement and self-congratulatory zeal. The giraffe was mistaken for a mythical animal having cosmic significance in Chinese folklore. The giraffe was taken as a good omen of Emperor Yung Lo's glorious and righteous rule. The animal's journey had begun far away, in east Africa, where it was called a "Girin" in the native language. By coincidence, the Chinese believed in a unicorn-like mythological figure called "k'i-lin" in their language. According to ancient Chinese fables, the *k'i-lin* had the body of a deer and the tail of an ox, ate only herbs, and harmed no living being. This was a perfect description of the giraffe! With much ceremony and excitement, the arrival of this "k'i-lin" was treated as a good luck omen and a sign that the Emperor would have a long and successful reign.⁸



Baghdad's wealth was not confined to the ruling classes alone. As a fanciful source of information, the *Thousand and One Nights* give some picture of the life of merchants and lower classes alike. More reliable information, however, comes to us from literature of the time. While poetry has always been a favorite mode of Arabic literature, a unique prose form called *Maqamat*—anecdotes about a mischievous hero embellished with jokes, puns, satire and literary tricks—describe details of everyday life. Al-Hamadhani originated the form in the 10th century. Among the stories is a long description of a merchant's house and its contents.⁹ In the 11th century, al-Hariri wrote another famous collection. A version of al-Hariri's *Maqamat* illustrated by al-Wasiti in the 12th century gives a picture of middle class life. The center of literary life in Baghdad was not only the court. The *Suq al-Warraqin* ("Market of the Paper-sellers") was a place to buy writing supplies, as the name suggests in Arabic, but it was also a book market, meeting place for authors, and notary center, with scribes who could prepare papers for government petitions, permits and other services. It was located between the paper mills on the Tigris and the government offices of the Round City. (See Segment 2, pages 140-142 for a story about the *Suq al-Warraqin*.)

7. Edward Bovill, *Golden Trade of the Moors, West African Kingdoms in the 14th Century*, (Princeton: Markus Wiener Publ., 1995), p. 101.

8. Daniel Boorstin, *The Discoverers*, (New York: Random House, 1983), p. 197.

9. See the CIE classroom resource, *Beyond the Thousand and One Nights: a Sampler of Literature from Muslim Civilization* (Fountain Valley, CA: Council on Islamic Education, 1997), "The Maqama of the Madirah."

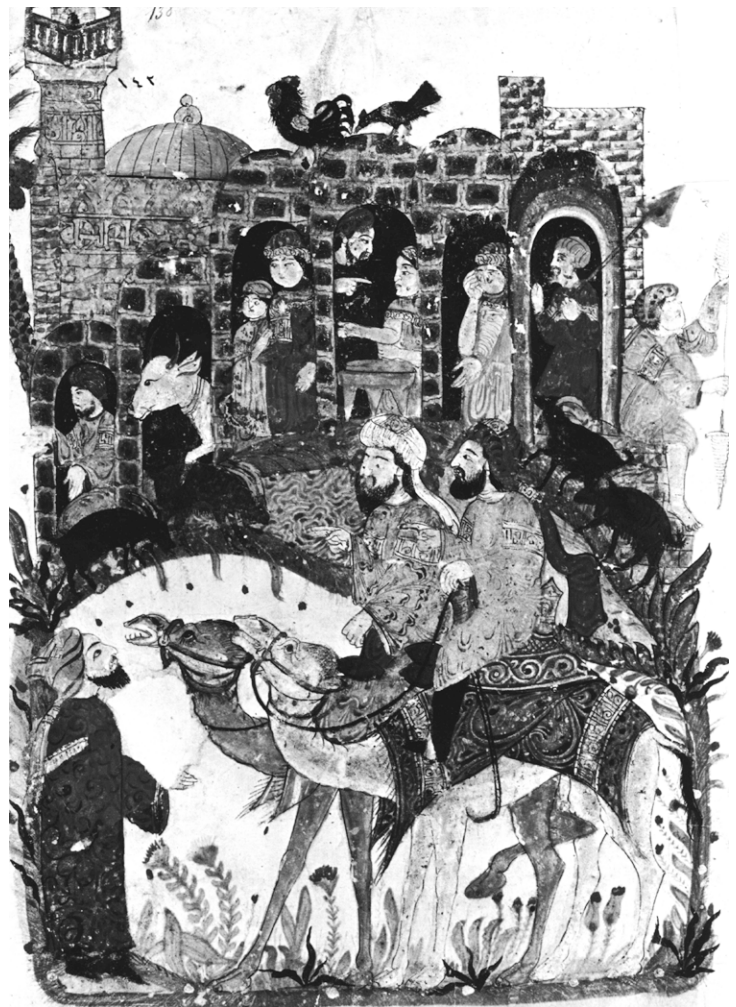
BEYOND BAGHDAD

As people traveled along the wide network of trade routes, they carried with them an urban culture and standard of living that spread to all the major cities in Muslim territory and beyond—into Africa, the Indian Ocean basin, to Central Asia and lands touching the Mediterranean. To fulfill the requirements of this vigorous trade, institutions and business practices developed in Muslim cities, leaving an important legacy to the field of trade and commerce.

Each city had its great bazaar, or covered markets built to accommodate the needs of merchants and buyers alike. There were various bazaars for each branch of business. Like indoor streets lined with shops, they snaked through the cities, covered by vented domes that let in light and pulled the hot, stuffy air upward, letting cool air in through the arched doorways. Near the markets were *khans*, which were hotels and commercial centers. Between cities, and along the pilgrimage routes, a series of *caravansaries* were maintained. Developed along the great trade routes, they offered safe and convenient places for the traveling merchants to find food, camaraderie, storage for goods and a place to rest. Like modern motels, they were arranged around a courtyard, usually having two levels, one for the animals and servants below, and another for the merchants of better means. The caravansary was surrounded by a high wall and locked at night behind heavy wooden doors or gates. Within, it was a place to hear about prices, news from faraway, as well as stories, songs and other entertaining talk from a varied collection of folk.

Most Muslim cities had an official administrative post called the *muhtasib*. The *muhtasib* assured that weights and measures used in the markets were uniform and carried out other quality controls, to prevent cheating by merchants and enforce high standards. There were *muhtasibs* who specialized in various crafts and professions, like assuring that produce and other items on the market met certain standards of cleanliness and health. Some *muhtasibs* wrote books about their jobs. In the 11th century, Abu al-Fadl Jafar bin Ali wrote “*A Guide to the Merits of Commerce and to Recognition of Both Fine and Defective Merchandise and the Swindles of Those Who Deal Dishonestly*”. Such historical sources tell a great deal about technology and urban life.

Muslims developed joint ventures among investment groups that spread the financial risks and increased the amount of available capital. A common investment tool among Muslim investors, some of these companies coordinated the efforts of Muslim and Christian merchants. In important commercial cities, it was very common for men and women to invest money in trade. Far-reaching trade networks, common language and business practices helped streamline commerce. For example, tools like the *bill of exchange* enabled people to travel great distances without carrying cash. This bill, called *sakk* in Arabic, led to our use of checks in today’s banking system. Besides “check”, there are many other English words related to commerce that are derived from the Arabic language, many of which came to us through Italian, Spanish and French.





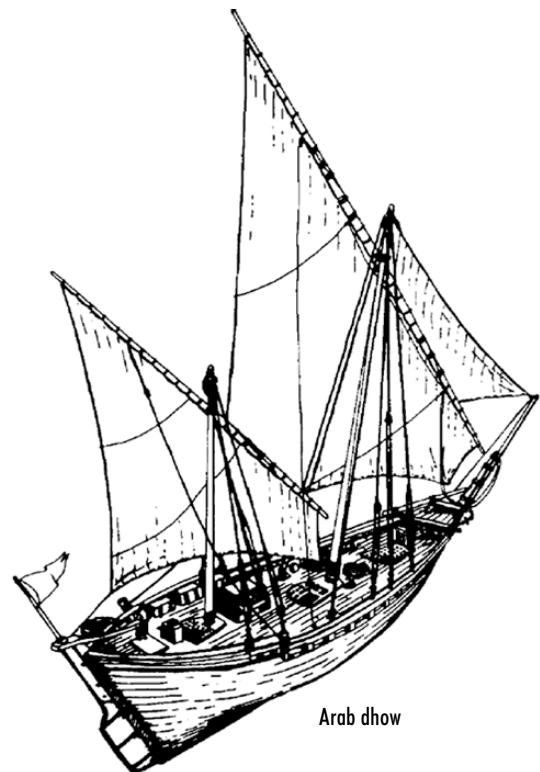
COMMERCE AND TRAVEL IN MUSLIM CULTURE

Cultural, religious and psychological attitudes toward commerce, trade and travel often set the tone for what path a society will take, what type of character it will have, and what values it will reflect. Some cultures, such as those of ancient Greece, Alexandria (Egypt) and Phoenicia, while still maintaining a respectful fear of the great waters which lay beyond them, had a vitality and enthusiasm for trade and exploration which turned their cities into great centers of exploration, cultural exchange and commerce. With legends of man-eating sea monsters and mythical creatures that supposedly inhabited the far reaches of the earth, early explorers had much fear to overcome before venturing out to the *Mare Tenebrosum* or “Sea of Darkness”. For Latin Christendom, this title conjured up thoughts of the “Prince of Darkness”, or Satan. For Muslim explorers, the vast expanses of the ocean also brought to mind *Qur’anic* passages like Chapter 24, “The Light” which claims that “Allah is the Light”, and that the state of the unbeliever is like

“*the depths of darkness, in a vast deep ocean,
overwhelmed with billows topped by billows,
topped by (dark) clouds:
depth and darkness,
one above the other.*”

For classical Greece and Rome, the towering *Pillars of Hercules* served as a symbolic “point of no return”. They inspired the ancient adage *Ne Plus Ultra*, “There is Nothing Beyond”. This ominous warning, represented by the Pillars of Hercules, came *not* from two giant pillars as legend has stated, but from two large mountain peaks at the western end of the Mediterranean Sea. These giant pillars of rock towered over the Strait of Gibraltar. This was the narrow entrance to the Sea of Darkness (Atlantic Ocean) which lay beyond the Mediterranean. As early as 1100 BCE, however, the Phoenicians had already ventured into the Atlantic, and perhaps even sailed around Africa. Their control of far-flung trade routes resulted in economic and cultural vitality, stimulating further exploration.

Like the Phoenicians before them, Muslims explored new routes for trade, religious journeys and in search of knowledge. Arabs had a heritage of trade and travel overland and by sea. As early as Roman times, Arab and other seafarers had plied the Indian Ocean using the monsoon winds. Persian trade and travel moved along the silk roads of Central Asia, as well as regular contact with India. Additionally, African and Arab traders were skilled at following the ancient Omani and Swahili monsoon trade routes down the East African coast where a thriving gold trade had developed. With the invention of the triangular lateen sail—often attributed to the Arabs—sea travel became faster, safer, and more profitable, since it utilized wind power more efficiently. By the 8th century, Arab traders had established merchant colonies all around the Indian Ocean rim, as far east as China.

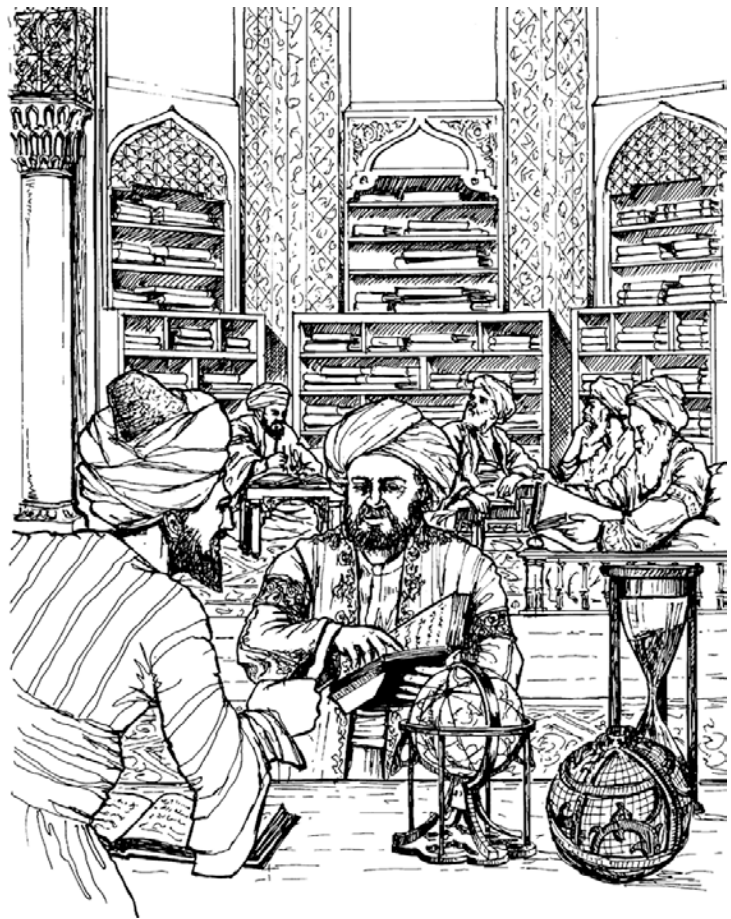


Arab dhow

Together with other inhabitants of the Indian Ocean basin, Muslim traders established a large zone of communication and commerce that crossed both land and sea. For the next five centuries, trade from the East was funneled through the Muslim lands on its way to the Mediterranean and Europe. While Muslim merchants became increasingly prominent in the Indian Ocean, however, no single group monopolized the trade. Arabs, Persians, Indians, Chinese and other peoples took part. Religion was also a cosmopolitan affair. Hindus, Buddhists, Jews, Christians, Muslims and a variety of local traditions participated in the relay trade between India, China and Europe. The large *masjid* (mosque) in the great city of Xian, China bears witness to a continuous Muslim presence lasting thirteen centuries. Another early *masjid* is in the port city of Guangzhou, China. With time, Islam won adherents among the Chinese, creating even stronger links between the two ends of the world's greatest trade route. One of history's greatest sea explorers was the Chinese Muslim Cheng Ho, who served between 1405 and 1433 as "Admiral of the Seas" for the Emperor of China. Southeast Asia still shows this amazing diversity today.

THE SPREAD OF KNOWLEDGE

When the Abbasid rulers established the *Bayt al-Hikmah* (the "House of Wisdom"), Muslim, Christian, Jewish, Hindu, Buddhist, pagan, Sabaeen and Zoroastrian scholars flocked to Baghdad to translate texts from Greek, Persian, Sanskrit and other languages. The School at Jundi-Shapur, in Persia, had been an important source for this gathered knowledge. The library's collection, which contained much of the world's knowledge at the time, included the best known works on geography. The authority of the time was Ptolemy, a 2nd-century Greek writer who lived in Alexandria, Egypt. His works were translated into Arabic by 826 CE, and remained the standard until the Renaissance and the Scientific Revolution in the 1500s and 1600s. Ptolemy's writings inspired Muslim scholars to investigate the size and shape of the earth, the features of the land, and methods for mapping it. The work of Ptolemy, Euclid, and Aristotle, along with the sciences of Persia and India, stimulated Muslim scientists to improve their knowledge of astronomy and mathematical geography. This work was put to use to determine the direction of Makkah from various locations, to improve navigation and surveying, and to establish correct calendars and time keeping. In addition, some of the best known Muslim scientists, like al-Faraghani, al-Biruni, and Yaqubi traveled extensively to gather information. Many other Muslim geographers followed. Using latitude and longitude, calculating the circumference of the earth within a few hundred miles, Muslim geographers so greatly improved on Ptolemy's famous *Almagest*, that it is not certain how much of the work actually belongs to the famous Greek, and how much was added to successive copies. The *Almagest* was one of the most sought-after manuscripts, entering Europe from Toledo, Spain, and from Constantinople. Many other scientific works found their way to Spain from distant places. Scholars followed trade routes to gather information and to study with others of their kind.



Books were among the most valuable items of trade, while libraries were stocked to reflect a ruler's status and generosity to scholars. The sheer number of copies in different places helped protect the legacy of learning from loss.

DIVERSITY AND UNITY

Trade and travel helped unite the diverse cultures that were gathered together in *Dar al-Islam* (the Abode of Islam), which stretched from Spain to China. The trade routes of the Old World, dotted by a chain of cities, encouraged cultural links. Asian Muslim traders, for example, maintained the link between the ancient Royal Roads of the Roman Empire and the Imperial Highway of China which opened the gateway of trade as early as the 2nd century BCE, under the rule of Emperor Wu, leader of the Han Dynasty. This linkage of societies and trade routes brought about much more than the exchange of trade goods. Moving from city to city, a traveler could meet a Buddhist monk in Cairo, an African alchemist studying in Damascus, or a Nestorian Christian physician teaching medicine in Persia. Artisans were another well-traveled group. As they were employed at the courts of various rulers, they spread techniques and notions of style in decoration, painting, architecture and calligraphy across Muslim territory.

Arabic language and elements of Muslim worship also encouraged cultural exchange. The daily Islamic prayer, spoken everywhere in Arabic, and recitation of the *Qur'an* helped unite all Muslims in a single, Arabic tongue. While some languages like Persian, Turkish and Urdu held their own, many local languages were replaced by Arabic, and all were affected by Islamic words, expressions and the Arabic alphabet. Arabic, however, remained the language of Islamic scholarship. Prayer, directed toward the *qiblah* (direction of Makkah), gave people in the most remote locations a sense of place, of geographic orientation. The *Hajj*, fifth pillar of Islamic practice, was the duty of every believer to make the journey to Makkah. Within the mind of every Muslim there grew a longing to go there, even if the trip was impossible. Much like the prayer, this created a sense of connection with believers everywhere in geographic space. On a practical level, the departure of the annual *Hajj* caravans encouraged development and maintenance of roads, wells, and ports, and kept them peopled with a steady stream of travelers. Many travel journals show, however, that the *Hajj* journey became a grand tour, including many other places on or off the route. From simple folk to scholars like Ibn Jubayr and Ibn Battuta to fabulously wealthy rulers and their households, the vital circulation of people in the lands of Islam was kept flowing by the *Hajj*. Unity of practice and belief was reinforced at Makkah, along with recognition of diversity in class, in color, in dress, and regional origin among the people of the *Ummah*, or Muslim community. These qualities of Muslim culture and religion that encouraged travel helped stitch together the lands, people and cultures of the vast Eastern Hemisphere into a more familiar tapestry.

THE LEGACY OF MUSLIM TRADE AND TRAVEL TO EUROPE

The presence of the Muslim lands at Europe's doorstep was both a window on the hemisphere and a source of frustration. Islam and the various Muslim states were sometimes viewed as a commercial trading partner and sometimes as an enemy. As Europeans became increasingly aware of the fabulous lands to their east, and of stories about the riches of India, Persia, China and the Spice Islands, they began to form an idea of going there directly. Control of the land routes across Asia, Africa and Arabia was out of the question. Asian historian K. M. Panikkar described the European desire to expand into Asian waters as "an attempt to get round the overwhelming power of Islam in the Middle East," and "an urge to break through the prison of the Mediterranean."¹⁰ The Crusades had not succeeded in breaking this power, but *al-Andalus* (Muslim Spain), and even North Africa, had begun to yield to the Spanish and Portuguese, pointing the way toward an alternate route.

10. K.M. Panikkar, *Asia and Western Dominance*, (London: George Allen and Unwin, Ltd., 1969), p. 17.

Control of sea routes, for a region as much wedded to the seacoast as Europe, required a great deal of imagination and knowledge. Mediterranean merchant seafarers like the Italians had mastered the art of balancing power and competition among the Byzantines, Muslims and themselves. They also had access to knowledge and technology that trickled onto Mediterranean shores from the East. A longer and deeper acquaintance with learning and technology from across the Muslim lands was acquired by Europe through Spain, especially after the Muslim libraries of Toledo and Cordoba were opened to Christian translators in the 11th century. Both Italian and Iberian (Spanish and Portuguese) leaders began to turn imagination into reality during the early 15th century. As Christians defeated Muslim rulers in Spain and Sicily, some realized that it would be to their advantage to continue supporting the great centers of learning that the Muslim rulers had created in Europe. Henry the Navigator established his school of navigation at Sagres, bringing together experts in making instruments, experienced seamen and pilots, and translators with skill in Arabic. Translation and patronage of scholars was underway at some other courts, where the Christian ruler Alfonso X of Spain and Roger II, Norman King of Sicily, are said to have been fluent in Arabic. They continued the Islamic tradition of bringing Muslim, Jewish and Christian scholars to their courts, where further developments were made in the sciences, cartography and navigation.

Just as surely as the Crusades of the Middle Ages were motivated by the desire to project the power of faith, the Reconquista in Spain developed a strong religious impulse, particularly in the aftermath, when the Christians were rejoicing in their victories. By the time of Henry the Navigator, the imagination of some Europeans was already fired by global possibilities. Pope Nicholas V, in 1454, understood the importance, if not the exact geography, of Henry's achievements. He wrote in an official papal document:

“Our joy is immense to know that our dear son, Henry, Prince of Portugal, has carried into the most distant and unknown countries the name of God and has brought into the Catholic fold the perfidious enemies of God and Christ, such as the Saracens [Muslims] and the Infidels...if by his effort the Ocean can be made navigable as far as India, which, it is said, is already subject to Christ, he will induce them to come to the help of the Christians of the West against the enemies of the faith. At the same time, he will bring under submission...the pagans of the countries not yet afflicted with the plague of Islam...he in his fast caravels, searched without repose the meridional regions to the Antarctic pole across the oceans, and after having traversed numerous seas reached at last the province of Guinea and from there pushed further to the mouth of the river known as the Nile.”¹¹

Like magnets that attract at one end and repel from the other, European and Muslim cultures exercised a great attraction and presented each other with a great obstacle. The sheer size, diversity and mobility of Muslim civilization made knowledge, goods, and various technologies available, and encouraged the demand for them along with the promise of profits and glory. On the other hand, the long-standing political and religious rivalry created new possibilities, and shaped the way each side viewed its place in the world. Over the next centuries, the possibilities for both trade and domination would be worked out between Muslim and European powers.

11. Panikkar, pp. 26-27.

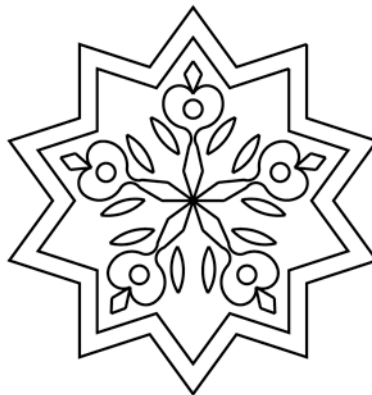
ZOOMING IN ON HISTORY

A Final Note on the Pillars of Hercules

During the 15th century, Spanish Christian monarchs Isabella and Ferdinand achieved the "Reconquista" or conquest of Spain from Muslims who had ruled there since the 8th century. After ousting the Muslims from the city of Seville, they moved into the Alcazares Reales, a palace built by Muslim artisans for the brilliant Christian king Alfonso X. Much of the palace was decorated with beautiful tiles which covered the floors and walls. Discovered among those tiles were images of a castle and a lion, representing the two provinces of Castile and Leon. These alternated with another tile depicting the two Pillars of Hercules. Between the Pillars was the motto of the ancients: *Ne Plus Ultra*, which means "There is Nothing Beyond". But this time there was one important exception; the negative word "Ne" was missing! By the time this palace had been built by the Muslims, the belief that there was nothing of value "out there" had been replaced by the confident claim that there was, indeed, much to be seen, valued and experienced beyond the world's vastness of ocean, mountain and desert. In fact, when Ferdinand and Isabella's grandson Charles V inherited the throne in the 16th century, he decided to use "Plus Ultra" as his heraldic emblem, reflecting his desire to become "Ruler of the World".



Today you can still see the cultural significance of these pillars. Every time you draw a dollar sign, you draw two vertical lines into the symbol. That dollar sign, representing trade and commerce, is divided right down the middle by the modern-day symbol of the two *Pillars of Hercules*.¹²



12. Paul Lunde, "The Middle East and the Age of Discovery," *Aramco World Magazine*, Vol. 43, No. 3 (May-June 1992), p.5.



CARTOGRAPHY

A SENSE OF BELONGING, AND A PLACE ON THE MAP

How important is a sense of place to the way we define our identity? How do you answer when someone asks you, “Where are you from?” Even until this century, many people would have answered only with the name of their village, town or city. That view would begin to change for Europeans during the Renaissance.

BECOMING EUROPEAN

One of the important developments of the Renaissance in Europe was the sense of place. People in Europe began to think of themselves collectively as belonging to a larger place, like France, or England. Before this, they identified only with their city. They also began at this time to think of belonging to a place called “Europe”. This process of geographic identification was closely related to the making of maps, or *cartography*. Through map-making, political leaders, merchants and scholars gained a picture of the land where they lived, its physical relationship to other places, and its location relative to other places in the world. This change came at the same time that Europeans began to visit, trade, explore and imagine controlling other parts of the world. Upper class Europeans developed an intense fascination with map-making during the 14th to 16th centuries. There was a big demand for woodcuts, watercolors and later engravings showing bird’s-eye views, maps and architectural scenes of European cities. The appearance of these images in print spread this fascination and fed a new sense of pride about people’s own town or province. It also encouraged patriotism for one’s own country, and attachment to an idea of “Europe.”

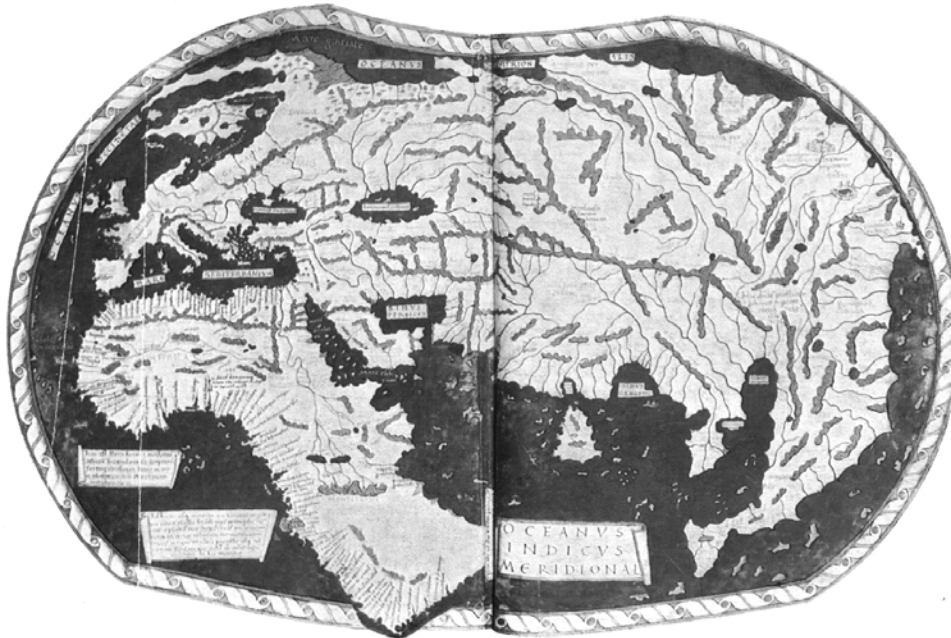
Travel and trade fed the appetite for more and better maps. As merchants, scholars and diplomats moved across Europe, they needed to navigate the roads, coasts and rivers between destinations. Military leaders needed to know the lay of the land, just as did religious pilgrims.

Continental, regional, topographical and political depictions of Europe appeared in the courts of aristocrats, in private libraries and in the book markets. The maps of the famous Greek geographer, Ptolemy, became available, as they were translated from Arabic and Greek copies. The Age of Exploration gave a powerful boost to cartography. New discoveries made it fashionable to have a *mappamundi*, or world map, in private libraries, with a special case to display it. The growing image of a coherent world beyond Europeans’ hometowns and the countries stimulated adventure even more, and broadened their sense of expanding possibilities.

To map a place was, in a sense, to come to own it—to make it a part of one’s mental furniture. To map the home city, the territory of the duke, the king or the Church was to orient the subjects of authority to their place, and their role as part of the whole. For Europeans, knowing their place in the world of continents and



16th-century woodcut of “Queen Europa”.



World map made by Henricus Germanus in 1489. How would the map have changed after 1498?

foreign lands and peoples developed together with their political and economic mastery of distant regions. Mapping is power. Mapping shapes people’s knowledge of the world and their identity. It is no accident that Europeans during their Age of Exploration and Imperialism mapped and named much of the world, the seas, the continents and the countries as we know them today. European cartographers and mathematical geographers, however, owed much to scientific knowledge gained by Muslim and Greek scholars and inventors.

THE SCIENCE AND ART OF CARTOGRAPHY

Making accurate maps, instead of maps based on fantasy, speculation and imagination, takes advanced skills and experience. In a time before aerial photography, the cartographer had to know how to measure points on the earth from the ground. The most important tools are astronomy and mathematics. By knowing which stars could be relied upon to locate a fixed position, a navigator or surveyor could use trigonometry to know how far he had come from another known location. Trigonometry uses triangulation to measure the height of buildings and mountains, the depth of a well or valley. It helps surveyors, navigators and cartographers to record the shape of the land. To apply mathematical skills to mapping large regions, the cartographer must travel or gather data from other travelers.

CARTOGRAPHY AND THE MUSLIM WORLD

On page 48, you can read verses from the *Qur’an* that encourage exploration of the world. Even the most basic practices of Islamic worship call believers’ attention to their location and surroundings. Daily prayer, for example, must be performed while facing Makkah, and it must be performed at certain times of day. Fasting is performed during a specific month on a calendar timed to the cycles of the moon. Another basic duty in Islamic worship, the *Hajj* (pilgrimage to Makkah), requires travel and performance of pilgrimage rites during a particular month designated in the *Qur’an*. These practices require the Muslim community to accurately measure time, which requires skill in observation and astronomy, calculating by the sun and its shadow, and by the moon’s phases. Location, both to orient prayers toward Makkah and to travel there for the *Hajj*, required navigational skills, and attention to routes. These were areas in which the mobile Arabs were already skilled as seafaring and land-borne traders. With the expansion of Muslim lands, travel and trade increased the need for complex knowledge of location and time. The requirements of governing a vast territory further stimulated travel and

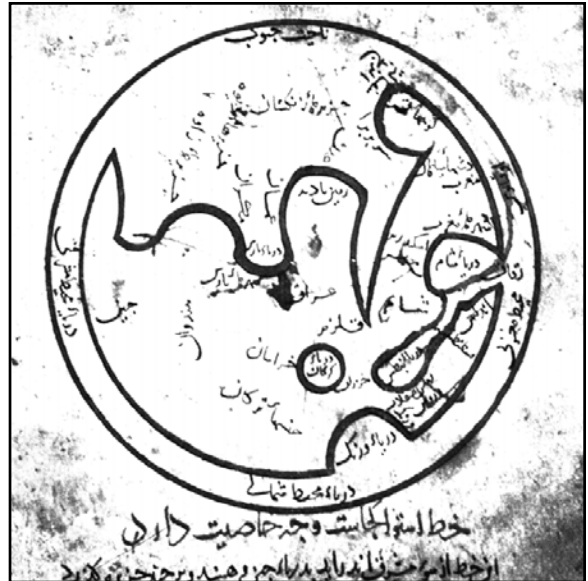
the growth of networks for communication. Mapping was a natural outgrowth of this development.

For Muslims living in the great cities, the arrival of visitors, merchant ships and caravans from other parts of the Muslim world and beyond provided a strong sense of place—of being part of a larger, ordered world. The departure of the annual *Hajj* caravans to Makkah from these centers was a regular reminder of the larger community of believers, and of the distance to Muhammad’s birthplace. Even for the remotest villages on the frontiers of Muslim territory, whether it be in Africa, the Himalayas, China, or a tiny island in the Indian Ocean some awareness of geography was contained in the act of praying on a rug at home, or orienting the local *masjid* in the direction of the Ka’bah (sacred house of worship) at Makkah.

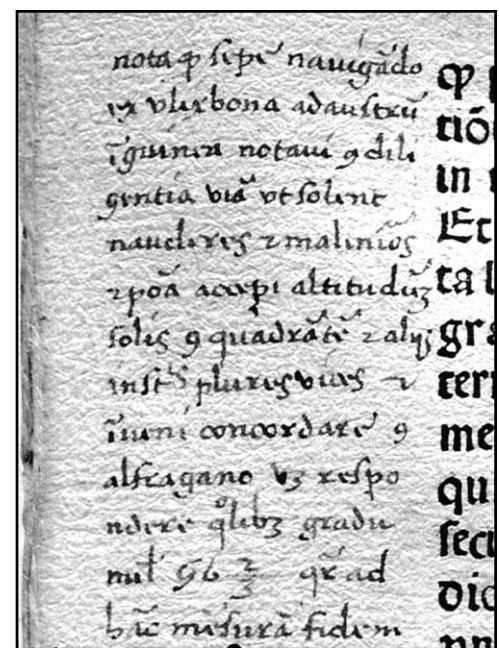
Books, maps and artifacts from Muslim civilization give us evidence of Muslims’ contributions to geography, astronomy, navigation, time keeping and cartography. For example, from the 9th century to the 15th, we have the works of numerous Arab geographers. Their writing can be divided into several types. Some geographic works tell about wonders of the world, such as unusual plants, animals and products. Others give descriptions of places, natural and man-made, and customs of foreign people. Al-Masudi’s work is much admired in this category. Some relate information about the sources of products that interested manufacturers and consumers in Muslim lands. This unit includes a list of products from Abu Uthman bin Bahr’s *Investigation of Commerce*.

To cartographers, the most interesting works were about mathematical geography. Al-Faraghani and al-Biruni were among the most famous Muslim scientists involved in this work. Al-Faraghani was head of a team sent out by *Khalifah* al-Ma’mun to accurately measure a degree of longitude. His measurement led to a calculation of the circumference of the earth that came within a few hundred miles of today’s figure. Columbus’ marginal notes in an important Latin book of geography contain a reference to al-Faraghani’s name and his calculation of how many miles are in a degree of longitude. Unfortunately, Columbus misunderstood the unit of measurement—the so-called “legal cubit”—that the Muslim scientist had used. He assumed it was the same as the “mile familiar to him, the Italian nautical mile. As a result, he underestimated the distance in one degree, multiplied it by 360 degrees, and ended up with a much smaller circumference for the earth. Al-Faraghani’s team had come very close to the true measure, but the difference between an Arab mile and an Italian nautical mile gave a result that was 25% off. It is not often that a mistake has such unexpected consequences.”¹³ Perhaps Columbus might never have attempted his search for a route to the east if he had known the true circumference of the earth.

Al-Biruni is another famous mathematical geographer. He is known for exploration and mapping of India, and for *Determination of the Coordinates of Cities*, a remarkable work that records the position of places using longitude and latitude. It was undoubtedly through Muslim adoption and refinement of Ptolemy’s system of longitude and latitude that Europeans were introduced to this



Schematic map of the Eastern Hemisphere by al-Biruni.



Columbus’ marginal note in the *Imago Mundi* of Pierre d’Ailly.

13. Paul Lunde, “Al-Faraghani and the Short Degree,” *Aramco World Magazine*, Vol. 43, No. 3 (May-June 1992), pp. 14-16.



Compare Toscanelli's 15th-century "Ptolemy" map to Idrisi's 12th-century map of the same regions. Why might they be similar? Note the use of longitude and latitude.

system of global positioning that is still used today. Ptolemy's system of geography and maps was introduced to Europe through the Arabic translation called the *Almagest*. Indeed, the version of Ptolemy that was passed on to Europe as the most accurate map of the world may not have been based on Ptolemy's 2nd-century CE knowledge of cartography. It most likely reflects later "state of the art" thinking amongst Muslim geographers. In fact, Toscanelli's so-called "Ptolemaic" 15th-century world map seems to borrow more heavily from Al-Idrisi's map than from Ptolemy's.

Navigation and cartography are closely related skills. Sea pilots in the Muslim world had a vast store of knowledge that was passed down through the generations, some of which was committed to writing. Using various methods and instruments to navigate by the stars, these pilots charted the way across the oceans, transporting merchants and other travelers in their ships. Using landmarks, depth and current measurements, and simple navigation instruments like the number of finger-widths from horizon to a fixed star, they kept mental or written records of their routes. From pilots' charts used for crossing the Indian Ocean, we can tell exactly where Muslim merchants traveled and how they got there, even though the names of many places have changed. These charts were jealously guarded by sea pilots, who worked for many different ship owners. Ibn Battuta tells us that Muslim pilots even served as captains on the huge Chinese sea-going junks.

The astrolabe is perhaps the most famous of "Islamic inventions." Primitive astrolabes were developed by the Greeks, but the refinements made by Muslim mathematicians and craftsmen made them more accurate and versatile. When the device entered Europe through Spain and Italy, it was the latest in high technology. The storyteller of *Canterbury Tales*, Chaucer, wrote instructions on its use. The well-known romance of Heloise and Abelard resulted in a son they named—Astrolabe! Other instruments used by Muslim astronomers and navigators were



Christian T-O map by Bishop Isidore of Seville (Spain), the first map printed in a European book, 1472.



An astrolabe.

the quadrant and the planisphere, a large, complicated device for plotting stars. Observatories were set up in desert locations where the best observations could be made. Accurate measurement of time used very similar mathematical skills to those needed for navigation. Al-Biruni, for example, wrote a mathematical treatise on shadows that helped calibrate sundials accurately.

Historians of science are uncertain whether the magnetic compass was a Chinese or a Muslim invention, but it is certain that its use in navigation was transferred to Europe through contact with the Muslim world. A Muslim navigator—possibly the well-known Ahmad Ibn Majid—guided the famous Portuguese explorer Vasco DaGama in 1498, on the last leg of his voyage, from East Africa to India. Ibn Majid would not have been surprised at the instruments DaGama had on board. The astrolabe, the compass and others were the same as those used in the Indian Ocean for generations before. These tools had passed to Europeans through Muslim Spain, for example, in books that were studied at Prince Henry the Navigator’s school of navigation at Sagres, Portugal.

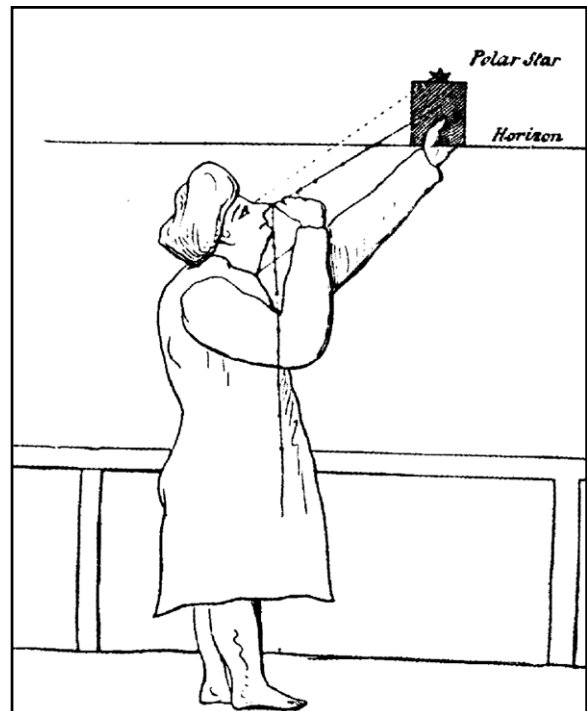
EARLY MAPS IN EUROPEAN AND MUSLIM LANDS

Practical knowledge and religious experience provided the background for early cartography. Early regional and “world” maps were stimulated by the urge to gain a sense of place. They reflected a spiritual, or religious world view more than a strictly geographic one. In ancient civilizations, we find the world represented as a sacred animal, such as a turtle or dragon. A symbolic view of the Christian world is represented in the “T-O maps,” showing Jerusalem at the center of a world landmass in the shape of a letter “T” that represents the known landmasses. The “O” is formed by the surrounding “world sea.”

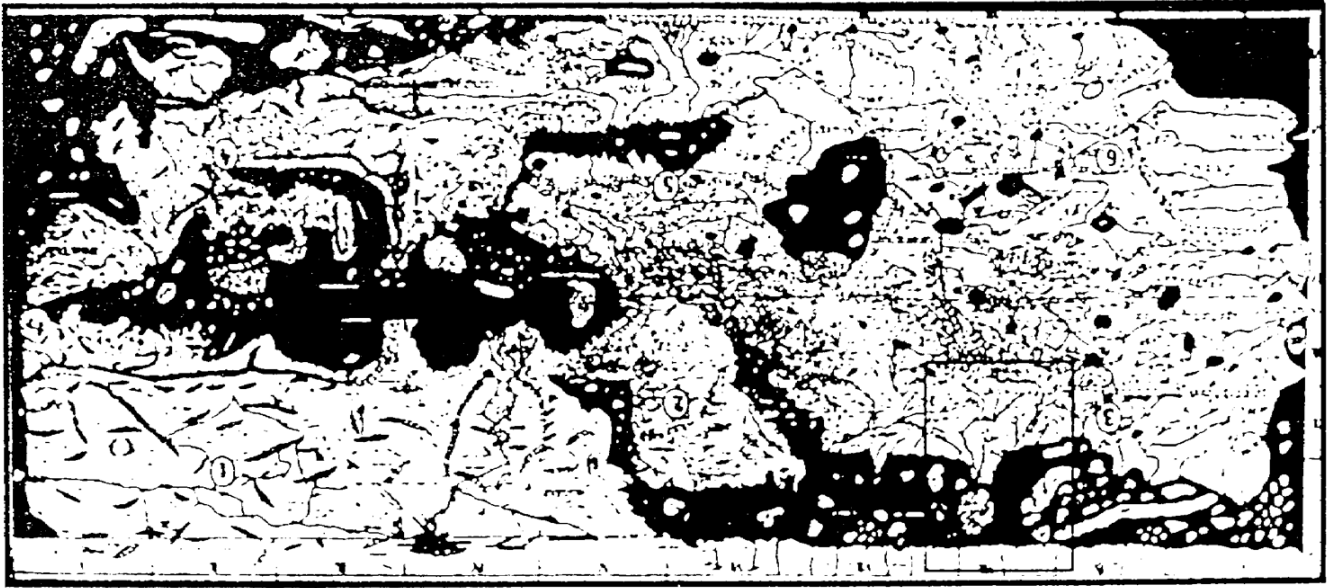
The Muslim equivalent of these maps are early ones showing the continents not in their real shapes, but as a diagram, with Makkah—the most sacred city of Islam—in the center. This was not only symbolic, however, since Muslims face Makkah in prayer each day, wherever they live. The need to establish the direction of prayer (*qiblah*) stimulated mathematical geography and development of instruments to assist it. Some compasses from Muslim lands are marked with the cities and their coordinates in order to show the direction of the *qiblah* from various Muslim cities.

As it would happen several centuries later in Europe, the stimulus of trade, travel and religion brought improved knowledge of mathematics, geography and navigation. These skills advanced cartography in Muslim civilization. From schematic, religious views, to more refined diagrams based on knowledge of the landforms and coastlines, more accurate maps began to take shape over time. To the modern viewer, most of them still seem curious and inaccurate.

From modern studies, it seems that Muslim pilots’ recorded knowledge of coordinates was more accurate than the maps that land-bound Muslim scholars and copyists made, with a few exceptions. For example, a modern scholar can plot al-Biruni’s coordinates to draw quite an accurate map of India’s shape. Maps made in Muslim lands long after al-Biruni, however, often show a much less accurate profile of India, both in size and shape. One was based on a first-hand visit and measurement, the other by hearsay from other sources.



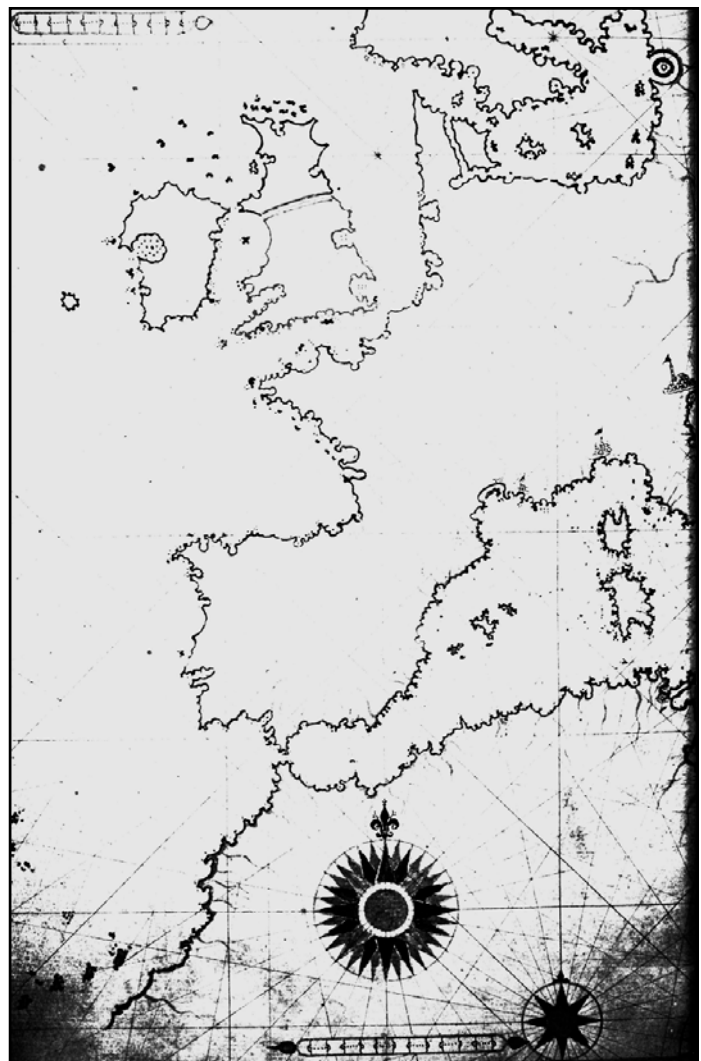
Card and knot navigation.



Identify the features on al-Idrisi's 12th-century map, and compare the same region to Germanus' and Toscanelli's 15th-century maps.

However, progress toward a sense of place that Muslims could identify as the regions they ruled and traveled—as would happen in Renaissance Europe—was taking shape.

A good example of a turning point in the direction of accuracy is the work of the cartographer al-Idrisi. He worked at the multi-religious court of the European ruler, Roger of Sicily, from 1145 CE. It was for this king that Al-Idrisi, created his masterpiece, “The Book of Roger”. This book was the most elaborate description of the world produced in the Middle Ages, along with many maps. Al-Idrisi also presented his patron king with a tremendous gift—a round platter made of silver weighing 300 pounds. On the disc, skilled silversmiths had carved an elaborate map of the world that identified borders of countries, oceans, rivers, gulfs, peninsulas and islands. This precious gift summarized 15 years of research conducted by al-Idrisi in the academy that King Roger had established. During the Renaissance, al-Idrisi's text and maps were published—in Arabic—in 1592, by the Medici Press in Rome. The text that al-Idrisi and his team completed in 1154 was translated into Latin in the 17th century and printed with the maps. In modern times, Italian scholars have produced an edition of al-Idrisi's text and maps in more than eight volumes. These maps combine the Ptolomaic grid system with wide-ranging knowledge of topography and place names. The maps are no longer schematic, the presentation is no

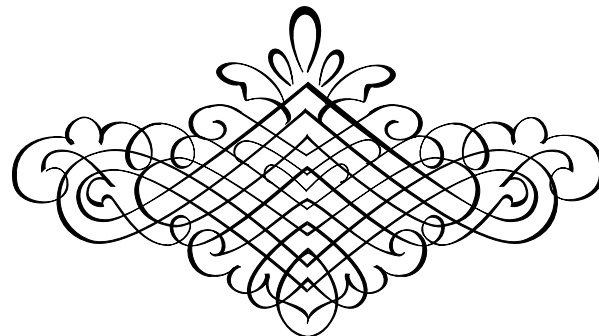


Early 16th-century map by Turkish cartographer Piri Reis.

longer symbolic, but as realistic as 12th-century technology allowed. Text and maps indicate that al-Idrisi's team was working from existing maps, pilots' charts, mathematical-astronomical measurement and firsthand knowledge. Some of al-Idrisi's views of the familiar Mediterranean region even compare favorably with modern satellite photos. In the period following Columbus' exploration of the Americas, the Turkish cartographer Piri Reis produced the astonishingly realistic views of the Atlantic Ocean and Europe (see previous page). The maps appeared in 1513, and were based on European and Muslim maps and pilots' charts. Even after the decline of cartography in the Muslim lands, the contributions of Muslim mathematical geographers and cartographers continued to be valued in the West, and numerous works were translated and printed. Even today, historians are trying to reconstruct many of their works from manuscripts, and to understand the full extent of their influence on other cultures.



A map of southwest Asia belonging to an atlas prepared by al-Idrisi for Roger II, ruler of Sicily.

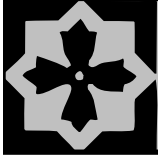




STUDY QUESTIONS AND STUDENT ACTIVITIES

1. Explain why people in various cultures might make symbolic maps of the earth or the cosmos. What role do religious views play in the way these maps look?
2. Why is longitude and latitude important in navigation and mapping? How is it used today?
3. List some types of individuals in any society who would require maps. For what purposes would they serve these individuals, and what information would they want to place on their maps?
4. Why was cartography more advanced in Muslim civilization than in Europe from the 8th to the 14th centuries? Why did European cartography advance from the 15th century on?
5. Do the activities suggested in the captions to the maps shown in the text.
6. Find some books that depict early maps of the world. Try to distinguish on these maps which things were pure fantasy and which things were based on fact. You may find, for instance, maps that show people who are half human and half ape. Yet such maps frequently contained other information which was quite accurate for that time.





SUMMARIZING IDEAS

SEGMENT 1: COMMERCE AND TRAVEL

Textbooks traditionally define the Renaissance as a period from the 14th to the 16th centuries. During that time, scholarship, knowledge and the arts blossomed in Europe, bringing luxuries and higher standards of living to new classes of people. The Renaissance was also a time when education began to keep pace with new knowledge and new demands in literature, science and law. Printing ushered in a remarkable time of scientific discovery as knowledge became more broadly and more rapidly available. The Renaissance is also considered a time of transition; Renaissance writers themselves saw their time as a passage between the medieval era and modern times. Paradoxically, as Europeans turned toward creating a new world, they looked to ancient cultures, particularly those of Greece and Rome, as their model—as an ideal to be glorified and recreated.

New scholarship, however, questions the Renaissance’s own idea of a Dark Age—or a middle age—between the glories of the ancient world it tried to revive and the Renaissance. Certainly, Europe from the 10th to the 15th centuries was not as dismal as we used to believe. Between classical times and the 14th-century dawning of the Renaissance, a fascinating period of interaction linked much of the Eastern Hemisphere. Far from a dark age, it was a time when cultures outside of Europe thrived. Places as far away from each other as Morocco and China participated in a vibrant web of exchange that spread commerce, products and technologies, scientific knowledge, religion, philosophy, language and customs in *many* directions. One of the critical factors that made all of this possible was the spread of Islam and the unifying culture to which it gave rise. As Muslim scholars, traders and explorers visited and settled in distant regions, they returned home with tales of new lands, ideas and inventions.

Islamic teachings and practices provided significant incentives for travel and exploration among Muslims for several reasons:

- ❖ The *Qur’an* encourages travel, pointing to attractions like the wind in a ship’s sails and a starry evening sky, as signs of God’s mercy. It also discourages fear by noting the earth’s natural roads and landmarks as further signs that the needs of a traveler will be provided.
- ❖ No matter where they are on the globe, Muslims pray five times a day, facing in the direction of Makkah. This helped Muslims to be aware of geography!
- ❖ Muslims from the remotest lands made the journey to Makkah for the *Hajj* (pilgrimage). Even a 10th-century Muslim living in a market town in China could conceive of completing the journey, and could have linked with well-trodden trade routes toward Arabia by land or sea.
- ❖ Guidelines for Islamic duties like prayers, fasting and celebrations require accurate time keeping. Time was calculated by studying the positions of the stars, the sun and the moon. The skies became the calendar and “world map” for Muslim travelers who used these skills to traverse much of the Eastern Hemisphere.

These religious activities are mandatory for all Muslims. The need to perform these duties helped usher in brilliant developments in geography, astronomy and mathematics. As early as the 8th century, people in Muslim lands were gaining confidence in their ability to rule large regions, explore the world around them and study and expand upon the learning of earlier civilizations.

Expansion of territory under Muslim rule led to the development of cities linked by trade routes. These links across the varied landscape of Muslim lands developed into a lasting and sophisticated urban civilization rivaled by few other places. Among the greatest of these cities was Baghdad, one of the finest examples of urban development in the world at that time. Many of the Old World trade routes led to Baghdad's fabulous markets. Scholars, writers and artists were attracted to Baghdad by another kind of wealth. Literature and the arts produced a wealth of beauty and culture. Scholars developed a wealth of knowledge at the *Bayt al-Hikmah* (House of Wisdom), a translation and scholarship center whose riches were shared with other Muslim cities. Christian, Jewish, Zoroastrian and Sabeian intellectuals were some of the people attracted to this thriving center of learning where they could satisfy their zest for knowledge. Eventually, the treasures of Arabic libraries would be shared with Europe's scholars.

Through links with other commercial cities, Baghdad developed trade connections that branched out to most of the Eastern Hemisphere and linked to Europe through trade with some of the major Christian urban centers. When most of Europe was living in relative isolation—what European writers would themselves call “the Dark Ages”—consumers in Muslim lands enjoyed exotic products from all over the Eastern hemisphere. There were exceptions to European isolation. Spain, Constantinople, and the great Italian trade cities like Venice and Genoa maintained trade and cultural links with the East. In Spain, Muslims, Christians and Jews interacted within a multi-religious society called al-Andalus (Muslim Spain), in a brilliant culture that lasted 700 years. The Christian Byzantine city of Constantinople was also a sophisticated center of the arts, religion, world culture, and trade. These places were important economic and cultural influences in the emergence of the Renaissance. The Renaissance in Europe expanded upon the traditions of commerce, technology and learning brought to Europe's doorstep from other civilizations. Whether certain technology, knowledge or products originated in Muslim lands, or whether it came from Africa, Persia, India or China, these transfers did not reach Europe without passing through Muslim territory. Muslim, Jewish and Christian travelers who crossed the Islamic heartland were important agents in this transfer.

As hemispheric trade routes wove their way toward the northwest, European cities experienced growth as new wealth, products, and technological advances became available. Artistic products became luxurious necessities for the homes of newly wealthy who wanted to show off their sophisticated tastes. Persian carpets, books, paintings, jewels and fabulous fabrics, furniture and artworks, Roman statues (whether fake or real), and donations of art to local churches—these things became fashionable signs of a more worldly focus.

European leaders sought ways to overtake their Muslim counterparts in world exploration and trade. The successes of the Reconquista in Spain against Islam made up for the disastrous results of the Crusades, and infused Europe with new confidence. Meanwhile, the Mongol threat had stopped short of Europe, but left parts of the Muslim lands devastated for centuries, including Baghdad which was devastated in 1258. By the 14th century, when Ibn Battuta visited the famous Round City, he found more of its spirit than the place that it had been.

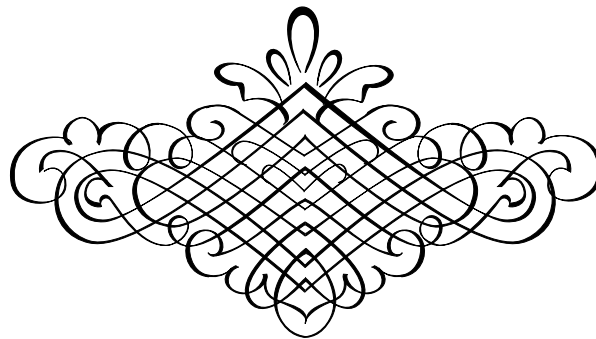
On the other hand, European powers were feeling threatened by the spread of Islamic power into various parts of the world. The Mongols had carried Islam and Muslim culture deep into Asia. Tamerlane's military efforts seemed to put up a barrier between Europe and the developing eastern trade, just as European possibilities for exploration seemed to open up. The Ottoman Turks became a formidable force on land, and competed with the Italians on the Mediterranean.

Christian kings entertained plans for exploration, and some, like Prince Henry the Navigator of Portugal, took the initiative to make their own plans. European royalty wanted to expand their economic and political power, at home, and all the way to Africa and Asia. They were spurred on to exploration by the Church, which rewarded kings and explorers for spreading Christianity.

Aided by the growth of cities, Europe began the transition from villages and city-states to a group of nations. People developed a more sophisticated worldview that included a new attitude toward time and space. Cartography (map-making) became an engaging profession as explorers gathered more information about distant lands. The changing appearance of maps both announced and spurred on the Age of Exploration. Within 30 years of the death of Prince Henry the Navigator, European sailors had traveled along the coasts of Africa, the Arabian Peninsula, Persia and into the Indian Ocean.

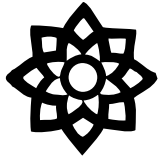
This was a time of colonization and exploration. The newly confident Europeans burst onto the world scene, letting everyone know that they were no longer the isolated neighbors to the north. Much of the legacy of navigation, map-making, astronomy and geography were passed on to Europe by their Muslim counterparts. Scholars such as al-Faraghani and al-Biruni contributed knowledge that enabled navigators to accurately calculate longitude and latitude. Before this information became available, few travelers possessed the bravery to sail into the open sea. They ventured forth instead by clinging to the coastlines of the continents they explored.

The competition and exchange that had characterized Europe's relations with the neighboring Muslim lands would, however, continue to play itself out for several centuries to come. Exchanges took place in many directions and involved multiple cultures borrowing from and influencing each other. People traded material goods, religious and philosophical ideas, and business practices. These contacts still affect the way we live today. Foods we eat such as rice, sugar, oranges, artichokes and pepper entered our culture, along with fabrics, dyes and furnishings. Our use of Arabic numerals, checks and group investments were adopted from the east by European merchants. The most significant interactions, however, were those of the heart and mind. Religious, philosophical and scientific exchanges brought a wondrous flourishing of scholarship in such fields as mathematics, astronomy, technology, medicine, and theology. This intellectual and spiritual sharing involved people distant from each other in time and place, creating links between the wisdom of the ancients and the Renaissance.





Commerce and Travel



TRADE AND TRAVEL IN MUSLIM LANDS AND EUROPE

Think of a fabulous city you may have heard about in folk tales and fairy tales. How about the Chinese Emperor’s capital in the story of the mechanical bird, *The Nightingale*? One of the Baba Yaga stories tells of a fabulous carpet made in Samarkand, that turns into a garden when unrolled. Have you heard a person say she would go to Timbuktu and back to get something she really wants? Did you know that Hollywood is called a “Mecca” for moviemakers? Makkah is a city that every Muslim in the world would like to visit once in a lifetime. What city was Sindbad’s and Aladdin’s hometown? These places are just a few of the many cities that are part of stories known around the world. These cities have existed—some for thousands of years—and have been woven into the fabric of the world’s dreams. The passage of dreams and ideas and precious things from city to city across the world is the topic of this reading.

TRADE ROUTES AND CITIES OF THE OLD WORLD BEFORE 1500

What is the Old World? The globe can be sliced from pole to pole at any point, but a natural division of east and west is through the Atlantic and Pacific Oceans. The Western Hemisphere includes North and South America. The Eastern Hemisphere includes Africa, Asia, Europe and Australia. The Eastern Hemisphere is often called the Old World. For thousands of years, before people there knew about the Americas, the main stage of history was the continents of Africa, Europe and Asia, and the Spice Islands in the southeast.

Three continents of the Old World make up the largest connected land mass on the globe. Africa, Asia and Europe are linked together by a land bridge called the Arabian Peninsula, located in Southwest Asia. Because it lies between the eastern and western parts of the hemisphere, this region is also called the Middle East.

For ages, people of the Old World thought that they were surrounded by a great sea with nothing beyond. According to some myths, the Old World was like the shell of a giant turtle swimming in the great sea. The first globes ever made—called *planispheres*—looked much like the top half of a turtle shell.



The lands of the Old world are also linked by bodies of water. Asia, Europe and Africa are bordered by the Atlantic and the Pacific, but the Indian Ocean joins parts of Africa, Asia and the islands of Southeast Asia. The Mediterranean Sea joins Europe, Southwest Asia and North Africa. The Arabian land bridge is surrounded by four waterways: the Mediterranean, the Red Sea, the Persian Gulf, and the Indian Ocean (the part called the Arabian Sea). Great rivers and inland seas on each continent link the land's interior with the coasts and seas.

Ancient trade routes. Over thousands of years, people came in contact with one another through trade. Among the longest routes across the Old World were the famous Silk Roads. The Silk Roads stretched from China in the east toward the Mediterranean in the West, linking many regions of Eurasia. Traffic on these routes increased and decreased from time to time, and from place to place, but gradually trade expanded to link most of the lands of the Old World. In the years between 500 CE and 1500 CE, contact across the Old World increased dramatically. After 1500, of course, when the Americas were rediscovered, the New World became linked to the Old World. Trade contacts became global.

Cities and civilizations grow. Since ancient times, civilizations thrived at centers in China, India, Persia, Africa and Europe. Trading and warfare were two ways in which people came into contact. Empires grew and shrank over the centuries, though some, like China, remained fairly stable. While wars were usually short, trade continued over hundreds of years. As a peaceful activity, trade produced many kinds of contact between cultures. People transported valuable goods, religious ideas, scientific knowledge and inventions from place to place. Artistic styles and languages spread from cultural centers as well. Cities grew up in places where people regularly traded, often along seacoasts and rivers. Rulers established beautiful capital cities to which people flocked like birds to seed, looking for opportunities.

Growth of Trade and Cities in Muslim Lands. The rise of Islam during the 600s and 700s brought a new center of culture that developed and expanded in the Eastern Hemisphere. It began with a rapid conquest, between about 650 and 750 CE, of lands from the Atlantic Ocean to Central Asia. As an empire under one ruler, the Muslim state lasted only a short time. Muslim civilization, however, lasted many centuries, and helped to link many lands, people and cultures of the Old World.

Over time, the spread of Islam linked ancient cities together by spreading beliefs and a way of life that were similar. Many new cities developed, and older cities grew in Muslim lands. Trade and travel opportunities expanded. Scholars went out to search for rare books and wise teachers to help them unlock secrets of knowledge. Merchants went out in search of precious goods like silk, gems and spices. They brought new products and inventions that caught people's fancy. Traders and scholars spread their language and ways of doing business. People in trading centers learned Arabic, and began using Arabic numerals (digits from 1 to 10) which we use, today. Beliefs and knowledge of Islamic religion spread among people in lands where Muslim merchants and scholars traveled.



TRAVEL HELPED DEVELOP SCIENCES IN MUSLIM LANDS

Travel and geographic skills developed in Muslim lands for several reasons. One reason was the size and diversity of these lands, and their central location in the Old World. One important reason was that Islamic teachings and practices encouraged travel and exploration among Muslims:

- ❖ **The *Qur'an***, the holy book of Islam, encourages people to travel. It tells about the earth's natural roads and landmarks, about navigating, or steering by the stars and winds. It tells believers to seek what God has provided, and to depend upon God's mercy.
- ❖ **Islamic worship** encouraged knowledge of geography. No matter where they are on the globe, Muslims pray five times a day, facing in the direction of Makkah, a city in Arabia. This required people in the farthest Muslim lands to learn where it was!
- ❖ Muslims everywhere use only **Arabic language** for prayer and for reciting the *Qur'an*. Arabic was also the main language used for writings about Islamic teachings. Arabic language and the Arabic alphabet spread widely among Muslim people. Having a common language breaks down barriers between different societies.
- ❖ Every Muslim was encouraged to make a **journey to Makkah for the *Hajj* (pilgrimage)** once in a lifetime. Even a 10th-century Muslim living in remote village could imagine completing the journey. Muslim leaders' duty was to ensure that their subjects could connect with trade routes headed toward Makkah by land or sea.
- ❖ Islamic duties like **prayers, fasting and holidays require accurate calendars and time-keeping**. Time was calculated by studying the positions of the stars, the sun and the moon. The skies became the calendar and "world map" for Muslim travelers. The need for this knowledge helped make travel easier, and helped to advance the sciences.

These religious activities are required for all Muslims. The need to perform these duties encouraged brilliant developments in geography, astronomy and mathematics. From the 700s, leaders in Muslim lands had become confident rulers of a large region. These leaders brought together scholars, scientists and merchants to explore the world around them and expand upon the learning of ancient cultures.

Mapping and Exploring in Muslim Lands. Many types of travel in Muslim lands encouraged exploration, geography and navigation. To find the way through empty seas and sandy deserts, navigators fixed their location by the stars. Observing the stars during different seasons and locations, early astronomers mapped the skies. The Greeks, the Persians and others had put this knowledge into books. These books were translated into Arabic, and Muslim astronomers began to build and improve upon that ancient knowledge. They developed instruments for measuring the position of stars. The astrolabe, a set of metal discs inscribed with numbers, lines and designs, was used to measure the height of mountains, depth of wells and position at sea.



An astrolabe.



A map by Muslim cartographer al-Idrisi made in the 1300s in Sicily. What regions and features can you recognize?

Observatories and models of the heavens were constructed with the aid of Muslim rulers. Another navigation tool, the magnetic compass, was probably invented in China. Compasses were widely used in Muslim lands, and spread to Europe from there.

An important tool for studying the stars, the planets and even the shape of the earth is mathematics. Mathematicians in Muslim lands gathered together knowledge from Greece, India and Persia. They made many advances of their own in mathematics, like algebra and trigonometry. Al-Khwarizmi and Umar Khayyam were two of many mathematicians still famous today. Al-Faraghani and al-Biruni were two Muslim scientists who used math to measure the surface of the earth. Al-Faraghani led a team that measured a degree of longitude 1100 years ago. Their calculation came close to the true circumference of the earth. Al-Biruni traveled and mapped the position of cities using latitude and longitude, and made many observations about geography, too. He even wrote about the mathematics of *shadows*, so people could make accurate sundials!

Mapping the seas and lands in which they traveled, pilots and cartographers worked for different purposes. Pilots, or ship captains, used knowledge passed on from father to son, memorizing the valuable information, and guarding it closely. They used both simple and complex instruments to safely steer the ships. Some, like Ibn Majid and Sulaiman Tajir, wrote the secrets of their voyages on pilot charts. These charts helped to make maps. Map-makers like al-Idrisi, worked for 15 years to make maps for Sicily's Christian king, Roger II. His team of mapmakers used charts, astronomy and geographic information to map parts of the world they knew at that time. Maps of irrigation, maps for military leaders, maps of seaports and world maps were made over hundreds of years. Some are quite accurate, some are just diagrams, and some show us how much people's knowledge of the world has changed with time. The best maps may have been the ones we cannot see, since many have been lost. We have

only descriptions in books of bronze and silver planispheres, and maps on parchment illustrated in gold and precious stones. In a museum in present-day Iran, there is an enormous globe covered entirely of jewels. Different types of jewels are used to depict different depths of the oceans, different mountain ranges, and land forms.

Muslim scholars set out to explore the geography of the vast lands of Islam. Some, like Ibn Fadlan, were diplomats on a mission. Ibn Fadlan described the Vikings, the Khazars and other groups on his visit to Russia. Al-Masudi, al-Maqdisi and many other geographers traveled to collect information about the people, lands and ways of life in Muslim lands and beyond. Many historians also traveled to gather facts. Some travelers set out to make *Hajj* (pilgrimage), but went far beyond the road to Makkah to visit other places. Ibn Jubayr and Ibn Battuta are two famous travelers who wrote about the geography of places they visited. People can learn from their books even today.



Cheng Ho, the 15th-century Admiral of the Seas, traveled all the way to Africa in great vessels called "Treasure Ships". To give you an idea of the size of these vessels the illustration above places a drawing of Christopher Columbus's ship, the "Santa Maria" (85 feet long), next to one of China's 400 foot long treasure ships.

(Illustration by Jan Adkins, 1993)

Cheng Ho's Seven Chinese Voyages. One of history's greatest sea explorers was the Chinese Muslim, Cheng Ho. Between 1405 and 1433, he was Admiral of the Seas for the Emperor of China. Setting out in huge Chinese ships like mountains on the waves, they made seven voyages round the rim of the Indian Ocean and back. Cheng Ho also made the *Hajj* journey to Makkah. Cheng Ho told people along his route of the Chinese Emperor, and took gifts of silk, porcelain, coins and other treasures of China. Chinese gifts included a huge bronze bell given to the Muslim Sultan of Aceh, on Sumatra, which still rings today. Many other mementos of Cheng Ho's journey can still be seen along the route. The voyagers brought back rare animals, including a giraffe, as well as jewels, spices, fabrics and dyestuffs to China on their return. Cheng Ho wrote several books, like *Traveling Exotic Lands by Sea*.

WHAT DID SOME FAMOUS CITIES LOOK LIKE?

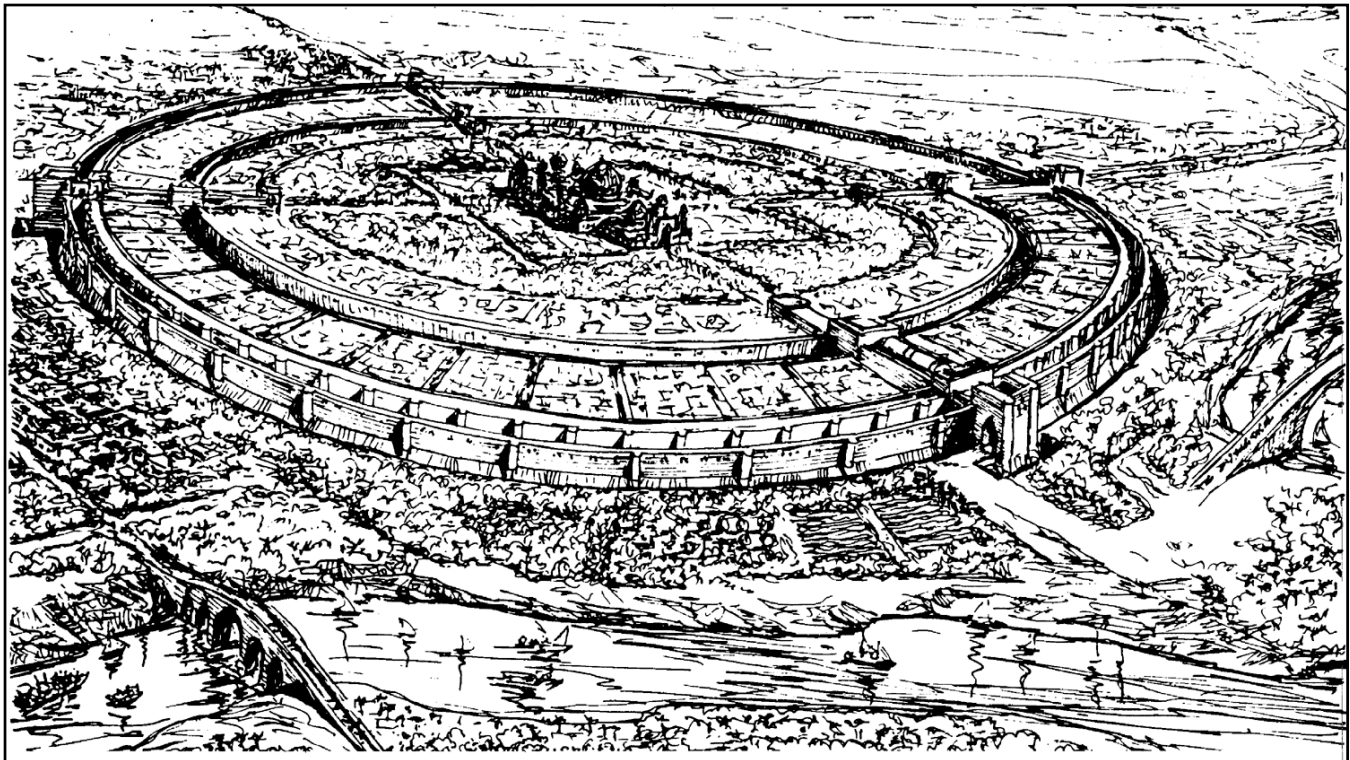
Baghdad, the Hub of Old World Trade. Among the greatest of Muslim cities was Baghdad, in Iraq. It was built by the Abbasid Caliph al-Mansur as a capital city. He housed the government in a round, walled complex called the City of Peace (*Madinat al-Salam*). The Round City's triple walls held offices, residences and markets, with the Caliph's palace and a great *masjid* (mosque) in the center. Later, the markets were moved out, causing suburbs, gardens, markets and new palace districts to grow outward from the foot of the Round City's walls. Migrants

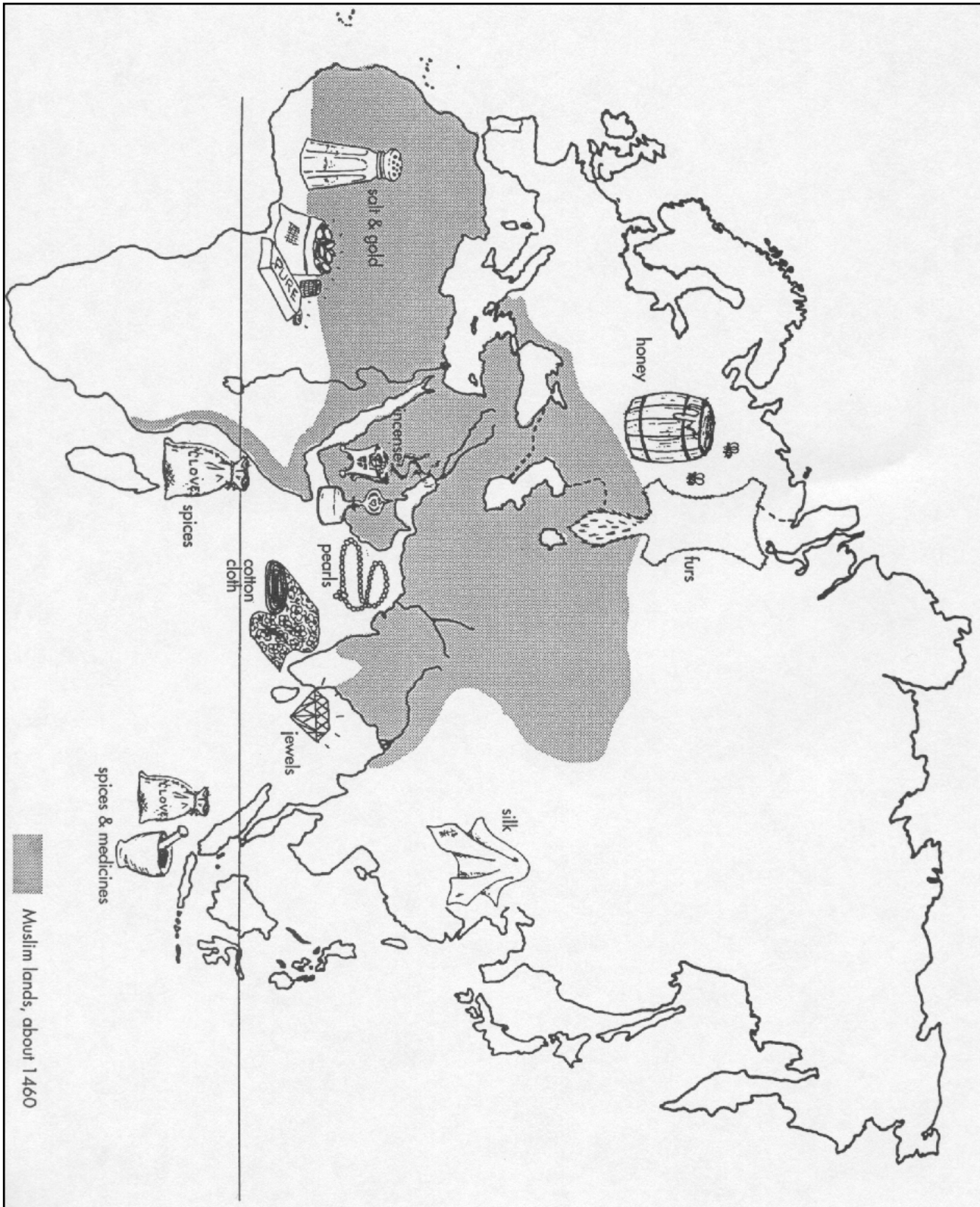
poured in through the city's four gates to seek their fortunes. Baghdad developed into one of the largest, richest and most exciting cities in the world at the time—over 1000 years ago—with nearly one million people.

Baghdad lay between the Tigris and the Euphrates Rivers. A network of canals between the rivers provided both water and transportation. Barges brought goods up river to Baghdad's markets from ships on the Persian Gulf. Trade routes from the Indian Ocean brought silks, porcelain, spices, ivory and gold. Caravans followed overland trade routes from all directions, bringing forest products from the north like furs, honey and wax. From Asian mountains, seas and rivers, came gems like lapis lazuli, turquoise, pearls, amber and rubies. Perfumes, spices and cosmetics included jasmine and rosewater from Persia, frankincense from Arabia, and musk, ambergris and sandalwood from various lands. Important crops like sugar, indigo, hemp and cotton spread to other countries through contact with Baghdad. Samarkand exported paper, and was one of the first cities on the ancient Silk Road to reveal the Chinese secret of making paper. The secret of making silk cloth also found its way to Baghdad, and spread to other places. Baghdad was like the hub, or center of a wheel, where trade routes from many lands met, and from which a variety of goods were carried to other places.

Life in Baghdad. Many people have read about life in Baghdad in the stories called the *Thousand and One Arabian Nights*. The setting of these stories is Baghdad, but many of them originated as traditional tales of India, Persia and China. Many kinds of literature, however, were written in Baghdad itself. Just as merchants met in Baghdad's markets, so scholars, writers and artists flocked to Baghdad seeking another kind of wealth. Literature, science and the arts flourished in the city. At the *Bayt al-Hikmah*, or "House of Wisdom"—a museum,

Baghdad, showing the Round City complex.





TRADE GOODS

translation and scholarship center—a wealth of knowledge from the world’s ancient cultures was gathered and shared with others. Baghdad produced many books and many scholars—riches that were shared with other Muslim cities, and with other cultures. Eventually, the treasures of Muslim libraries—in the Arabic language—would be shared with Europe’s scholars, to help develop modern science.

Other Cities in Muslim Lands. As people traveled along the wide network of trade routes over the next centuries, they carried with them Islamic religion, urban culture and high standards of living. Cities like Timbuktu, Cairo, and Tunis in Africa, Delhi in India, and Bukhara in Central Asia became well-known centers of trade and Muslim culture. Xian, the largest city in China—and perhaps in the whole world—boasted a Muslim place of worship, or *masjid*. In Europe, Muslim Spain was a window on eastern culture, with cities like Cordoba, Sevilla and Toledo. Muslim merchants were one of numerous trading groups in the Indian Ocean. They shared the seas and ports with people of many lands, cultures and religions. Arabs, Persians, Indians and Chinese, and other cultures took part. Hindus, Buddhists, Jews, Christians and Muslims built houses of worship at Indian Ocean ports.

Muslim cities were in some ways very similar. Each city had a great mosque, for example. Like the cathedrals in Europe’s cities, they were showcases of fine architecture, skill and wealth. Some cities had many large libraries, stocked with thousands of hand-written books, maps and artwork. Fine homes or palaces were found in most cities, along with lots of humble dwellings. *Bazaars* (or covered markets) handled the cities’ trade and crafts, with markets for each branch of business. Like indoor streets lined with shops, they snaked through the cities. Some were covered by domes that let light in and let hot air out the top. Cool air came in through the arched doorways. Near the markets were *khans*, which were hotels and warehouses.

Between cities, and along the *Hajj* (pilgrimage) routes, a series of *caravansaries* were maintained. Developed along the great trade routes, they offered safe and convenient places where traveling merchants could find water, food, news and a place to rest. They were ar-



ranged around a courtyard, and usually had two levels, one for the animals and servants, and the second for merchants who could pay more. The caravansary was surrounded by a high wall and locked at night behind heavy gates as tall as a loaded camel. In a caravansary, travelers exchanged prices and news, as well as stories, songs and poems.

TRADE IN MUSLIM LANDS HELPED EUROPE'S CITIES GROW

Trade moved east after Rome fell. Trade into much of Europe had slowed to a trickle after the fall of Rome. Only a few towns in Italy kept up trade links with Muslims and Byzantines at Mediterranean ports. Italian cities like Venice and Genoa traded raw materials from Europe for luxuries from the East, like jewels, glassware, and fancy cloth. Sicily was ruled by Muslims for a while, and kept up trade even after Muslim rule ended. Muslim Spain, called *al-Andalus* in Arabic, was a place where many cultures mixed, and were also linked by trade and other contacts with eastern Muslim lands.

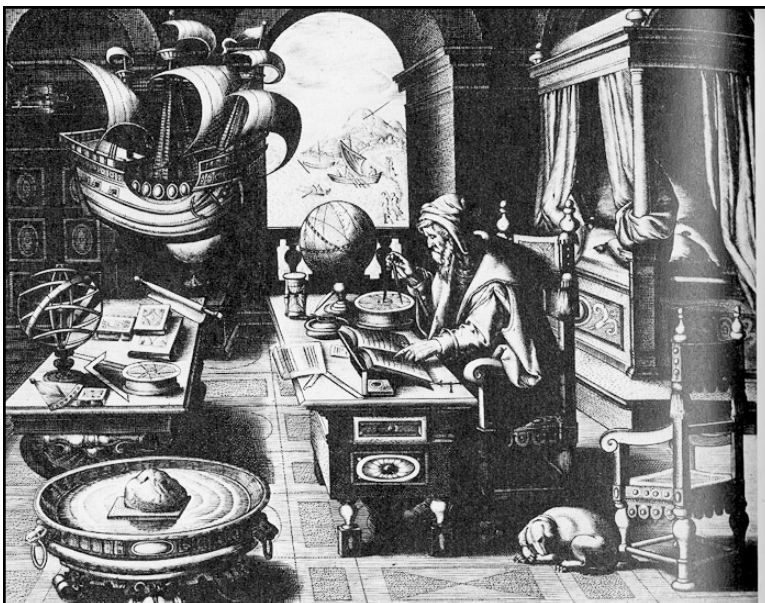
The rise of towns in Europe. In time, however, Europe's trade began to grow and change. Farming began to improve, letting more people move to cities and have other jobs. Better inventions, tools and ways of doing things also helped. Some of these ideas and inventions came to Europe though trade with other parts of Europe, Asia and Africa. Others were developed in Europe. Water wheels, spinning wheels and looms were two of these important inventions from Central and East Asia. Mining in Europe was also improved by knowledge from farther east, and helped to produce more metals for export and manufacture. Regular trade fairs brought people to the towns where they saw new luxury products. Trade of all kinds grew. New neighborhoods spread around the old town walls. Craft production gave

Europeans something to trade besides raw materials. Cloth was among the first manufactured goods. In England, woolen cloth was made for export. Flanders made fine linen and laces.

With the growth in city population, wealthy citizens demanded better education for their children. Schools and colleges took root and expanded in some European cities after the 1100s. Paris, Oxford and Padua were three important university towns. Wealthy



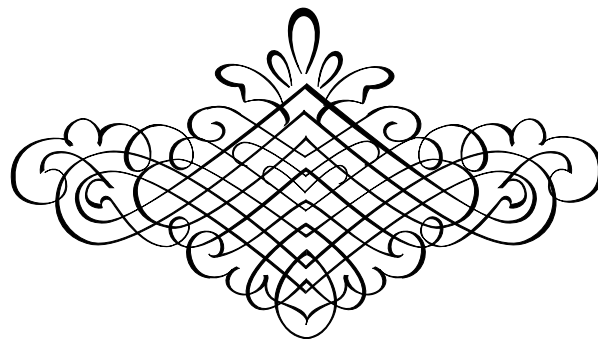
A European walled town.



Engraving of a Spanish cartographer with mercury compass, charts and instruments.

families purchased fancy homes with luxuries to fill them. Wealthy business families and nobles needed artists, lawyers, clerks, and other professionals. These groups paid for artworks like paintings and sculptures that we see in museums today. They ordered architects to design ornate stone buildings like churches, towers and palaces. Tourists still visit Florence, Italy to see them. Individuals and governments paid richly for entertainment and education, for literature, music, painting and scientific work.

The Renaissance in Europe. The period of history called the Renaissance in Europe—from the 1400s to the 1600s, is in many ways the sum of these changes and developments. Before these changes came to Europe, however, the growth of cities and flowering of culture took place in Muslim Spain, in North, West and East Africa and in parts of Asia. The growth of these cities was linked to farming, to trade and to the spread of religion and learning. When Europeans began to reach across the Eastern Hemisphere, they drew on achievements of other civilizations as a foundation for the European Renaissance of learning, warfare, trade and exploration. They learned from the libraries in Muslim lands, from books written by people of many religions. Skilled craft workers from Asia and Africa were even employed in Europe's workshops, to make cloth, jewelry, paper, swords and tools. Europe's explorers studied maps and viewed the skies through instruments from Muslim lands, improving on them in turn. Until they reached the distant shores of the Old World on their own, the treasures of Africa, Asia and the seas between came to Europe through and from the neighboring Muslim lands which linked Europe geographically to the rest of the Eastern Hemisphere.





TRADE, TRAVEL AND THE SEAS IN THE QUR'AN

This calligraphy design forms a boat from words describing articles of Islamic belief.



Surah 2: al-Baqarah (The Cow), verse 164

“Behold! In the creation of the heavens and the earth; in the alternation of the night and the day; in the sailing of the ships through the ocean for the profit of mankind; in the rain which Allah sends down from the skies and the life which He gives therewith to an earth that is dead; in the beasts of all kinds that He scatters through the earth; in the change of the winds and the clouds which they trail like their slaves between the sky and the earth; here indeed are signs for a people that are wise. ”

Surah 16: al-Nahl (The Bee), verses 5-7, 14-16

“And the cattle hath He created, whence ye have warm clothing and uses, and whereof ye eat. And wherein is beauty for you, when ye bring them home, and when ye take them out to pasture. And they bear your loads for you unto a land ye could not reach save with great trouble to yourselves. Lo! your Lord is Full of Pity, Merciful. ”

“It is He Who has made the sea subject that you may eat thereof flesh that is fresh and tender and that you may extract therefrom ornaments to wear; and you see the ships therein that plow the waves that you may seek of the bounty of Allah and that you may be grateful.

And He has set up on the earth mountains standing firm lest it should shake with you; and rivers and roads; that you may guide yourselves,

And marks and signposts; and by the stars men guide themselves. ”

Surah 30: al-Rum (The Romans), verse 46

“Among His signs is this that He sends the winds as heralds of glad tidings giving you a taste of His grace and mercy that the ships may sail majestically by His command and that you may seek of His bounty: in order that you may be grateful. ”

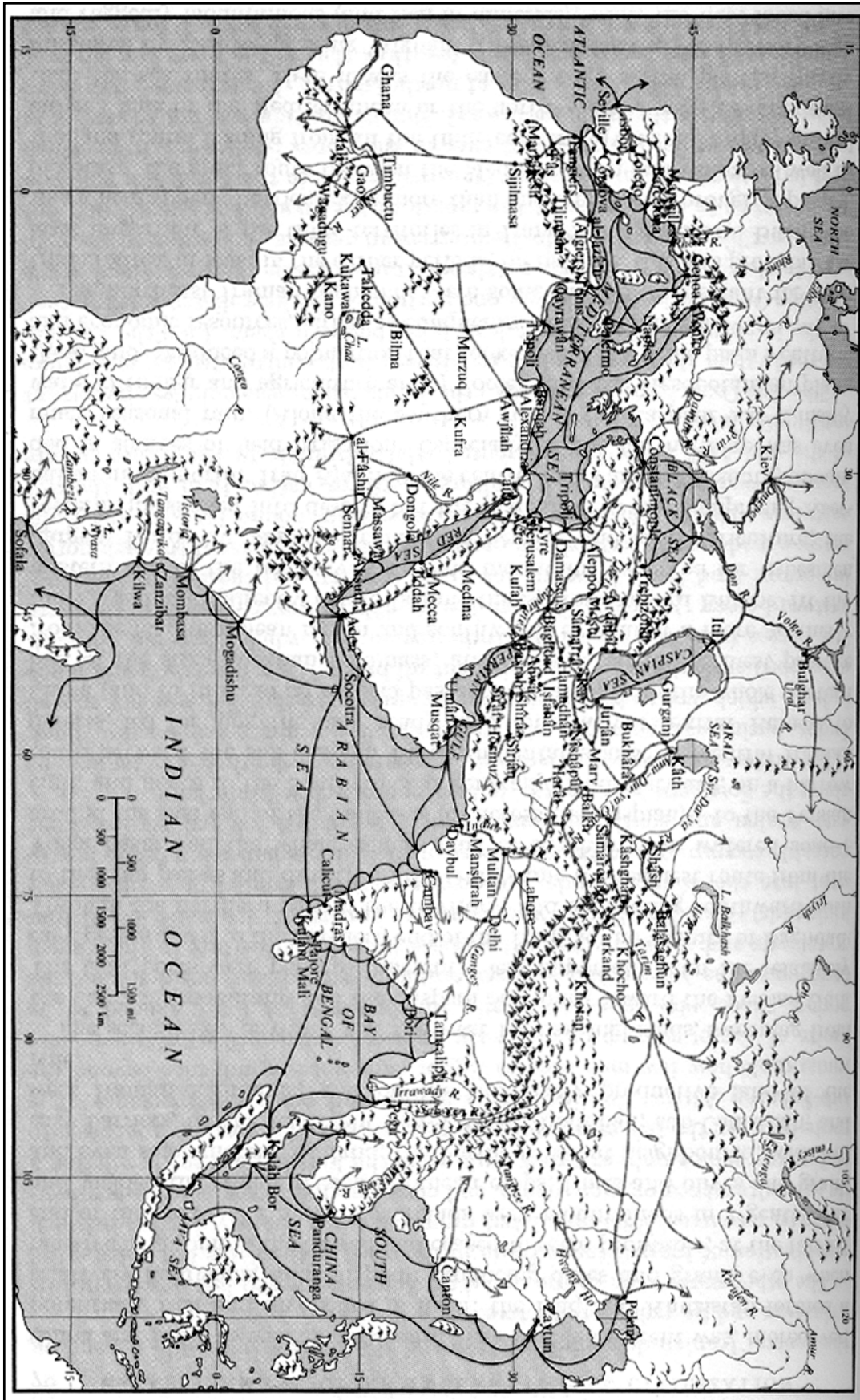
Surah 2: al-Baqarah (The Cow), verse 275

“Those who devour usury (taking interest from the money of others) will not stand except as stands one whom the Evil One by his touch hath driven to madness. That is because they say: “Trade is like usury but Allah hath permitted trade and forbidden usury. Those who after receiving direction from their Lord desist shall be pardoned for the past; their case is for Allah (to judge); but those who repeat (the offense) are companions of the fire: they will abide therein (for ever). ”

STUDY QUESTIONS AND STUDENT ACTIVITIES

1. List the references to various kinds of transportation in these verses.
2. List the aids to travel that these verses describe as gifts of God in the creation of the earth.
3. What attitude toward trade is transmitted in these verses? What goals of trade are described?

CITIES AND TRADE IN THE EASTERN HEMISPHERE, 800-1400 CE





TRAVEL IS BROADENING

WORDS AND PRODUCTS FROM MUSLIM LANDS

Some of the following words were adopted by European traders as they did business in Muslim lands. Others entered the language as European scholars went to Spain and translated Arabic works into Latin. Not finding an equivalent word in their own language, they simply tried their best to make it pronounceable in their own alphabet. Next time you use a dictionary, notice the history of words, and how they changed as they were carried from one language to another. Historians use these language clues as evidence of contact between cultures.

GROUP A

| | | |
|---------|------------------------|------------------------|
| admiral | coffer | risk |
| algebra | cordovan | sloop |
| average | Gibraltar | tariff (tax) |
| azimuth | magazine (store house) | traffic (distribution) |
| cable | magistrate | zenith |
| caliber | monsoon | zero |
| cipher | ream | |

GROUP B

Many Arabic words describing trade items have also entered the English language. Following is a partial listing of the **products** that entered Europe through trade with the Muslims: (English words with an asterisk are derived from Arabic)

| | | |
|--------------------|------------------|---------|
| alcohol* | indigo | racquet |
| apricots | ink | rice |
| artichokes | jasmine* | roses |
| backgammon | lemons* | sandal |
| cotton* | mohair | satin |
| chess (checkmate*) | muslin | silk |
| damask* | oranges* | sofa* |
| eggplants | oriental carpets | sugar* |
| gauze | ottoman* | tabby |
| glass | paper | tulips |
| honey | pepper* | |

STUDENT ACTIVITIES

1. Working alone or in groups of three, use a dictionary to find the meanings of any unfamiliar words.
2. Arrange the words in Group A into categories. Which ones refer to scientific fields, to business, to government, to transport?
3. Arrange the words in Group B into categories. What kinds of consumer goods, or what kinds of everyday activities do they represent?
4. Identify all of the items on the list that you have in and around your home or school.

Did You Know?

Many English words come from Arabic words

Thousands of Arabic words have entered the English language through a variety of channels during the course of history. Many of these words spread into Europe from Muslim Spain (711-1492 C.E.) as a consequence of the translation of Arabic books of learning into Latin. Only a small number of them are listed here.

WORDS OF ARABIC ORIGIN

| | | |
|-------------------------------------|------------------------------------|---------------------------------------|
| admiral (<i>amir al-bahr</i>) | coral (<i>qaral</i>) | muslin (<i>Mosul</i>) |
| adobe (<i>attoba</i>) | cordovan (<i>Qurtuba</i>) | myrrh (<i>murr</i>) |
| albatross (<i>al-qadus</i>) | cornea (<i>curnia</i>) | nadir (<i>nazir as-sam't</i>) |
| alcohol (<i>al-quhul</i>) | cosine (<i>jaib</i>) | orange (<i>naranj</i>) |
| alcove (<i>al-qubba</i>) | cotton (<i>qutun</i>) | racket (<i>raha</i>) |
| Aldebaran (<i>al-dabaran</i>) | damask (<i>Damascus</i>) | rebec (<i>rabab</i>) |
| alembic (<i>al-anbiq</i>) | decipher (<i>sifr</i>) | retina (<i>retina</i>) |
| alfalfa (<i>al-fisfisah</i>) | Deneb (<i>dahab</i>) | rice (<i>ruzz</i>) |
| algebra (<i>al-jabr</i>) | dhow (<i>dawa</i>) | Rigel (<i>Rijl Jauzah al Yusra</i>) |
| algorithm (<i>al-khwarizmi</i>) | dinero (<i>dinar</i>) | risk (<i>rizk</i>) |
| alkali (<i>al-kili</i>) | elixir (<i>al-iksir</i>) | rook (<i>ruk</i>) |
| almanac (<i>al-manakh</i>) | fanfare (<i>farfar</i>) | root (<i>rut</i>) |
| aloe (<i>allueh</i>) | gala (<i>khila</i>) | saffron (<i>za'fran</i>) |
| aludel (<i>al-uthal</i>) | garble (<i>gharbal, ghirbal</i>) | sash (<i>shash</i>) |
| amber (<i>anbar</i>) | gauze (<i>kazz</i>) | satin (<i>zaituni</i>) |
| aniline (<i>an-nil</i>) | gazelle (<i>ghazal</i>) | sine (<i>jaib</i>) |
| antimony (<i>antimun</i>) | ghoul (<i>ghul</i>) | sinus (<i>jaib</i>) |
| apricot (<i>al-birquq</i>) | giraffe (<i>zirafah</i>) | soda (<i>suwayd</i>) |
| arsenal (<i>dar sina'ah</i>) | guitar (<i>gitar</i>) | sofa (<i>suffa</i>) |
| atlas (<i>atlas</i>) | jar (<i>jarrah</i>) | sorbet (<i>sharba</i>) |
| average (<i>awariyah</i>) | jargon (<i>zarqun</i>) | spinach (<i>isfanakh</i>) |
| azimuth (<i>as-sumut</i>) | jasmine (<i>yasmin</i>) | sugar (<i>sukkar</i>) |
| azure (<i>lazaward</i>) | julep (<i>ghulab</i>) | sumac (<i>sumaq</i>) |
| banana (<i>banana</i>) | lapis lazuli (<i>lazaward</i>) | syrup (<i>sharab</i>) |
| barberry (<i>barbaris</i>) | lemon (<i>laymun</i>) | tabby (<i>Attabiyyah</i>) |
| benzene (<i>luban jawi</i>) | lilac (<i>lilak</i>) | talc (<i>talq</i>) |
| Betelgeuse (<i>bayt al-jauza</i>) | luffa (<i>luf</i>) | tamarind (<i>tamr hind</i>) |
| borax (<i>bauraq</i>) | lute (<i>al-'ud</i>) | tare (<i>tar'h</i>) |
| caliber (<i>qalib</i>) | macabre (<i>maqbarah</i>) | tariff (<i>ta'rifah</i>) |
| caliper (<i>qalib</i>) | mafia (<i>mahya</i>) | tennis (<i>tinnis</i>) |
| camphor (<i>kafur</i>) | magazine (<i>makhazin</i>) | traffic (<i>trafiq</i>) |
| candy (<i>qandi</i>) | mask (<i>maskharah</i>) | turmeric (<i>kurkum</i>) |
| carafe (<i>gharraf</i>) | mattress (<i>matrah</i>) | typhoon (<i>tufan</i>) |
| carat (<i>qirat</i>) | menniges (<i>minningis</i>) | vega (<i>wagi</i>) |
| caraway (<i>al-karawiya</i>) | mesentary (<i>masarlike</i>) | vizier (<i>wazir</i>) |
| carob (<i>kharrub</i>) | mohair (<i>mukhayyar</i>) | zenith (<i>sumut</i>) |
| check (<i>sakk</i>) | monsoon (<i>mawsim</i>) | zero (<i>sifr</i>) |
| chemistry (<i>al-kimiya'</i>) | mummy (<i>mum</i>) | zircon (<i>zarqun</i>) |



A MERCHANT'S LIST: IMPORT & EXPORT IN IRAQ, 9TH CENTURY

The variety of items that traveled through the Muslim lands can be seen by reviewing the following list, which was written in the mid-9th century by Abu Uthman bin Bahr. This list appeared in his pamphlet *The Investigation of Commerce* and gave an inventory of items that arrived in Iraq during his time. It also lists the regions that exported them.

| INVENTORY ¹⁴ | |
|--|--|
| ■ India | tigers, panthers, elephants, panther skins, rubies, ebony, coconuts |
| ■ China | silk, chinaware (porcelain), paper, ink, peacocks, saddles, cinnamon, drugs, utensils of gold and silver, gold coins, engineers, agronomists, marble workers |
| ■ Arabia | horses, pedigreed camels, tanned skins |
| ■ The borders of Maghrib and Barbary | panthers, felts, hawks, salam leaves (used for tanning leather) |
| ■ Yemen | incense, giraffes, gems, curcuma (used as a dye, condiment, and medicine) |
| ■ Egypt | donkeys, suits of fine cloth, papyrus, balsam, topaz |
| ■ The land of Khazars | slaves, coats of mail, helmets, neck guards |
| ■ The land of the Chorasmia (Khwarizm) | musk, ermine, marten, fox and other furs, sugarcane |
| ■ Samarkand | paper |
| ■ Bactria (Balkh) | sweet grapes |
| ■ Merv | zithers, zither players, carpets, suits |
| ■ Isfahan | honey, pears, quinces, apples, salt, saffron, soda, syrups, white lead |
| ■ Kirman | indigo, cumin |
| ■ Fars | linen suits, rose water, jasmine ointment, syrups |
| ■ Fasa | pistachios, rare fruit, glassware |
| ■ Oman and the sea coast | pearls |
| ■ Mosul | quails, curtains, striped cloth |
| ■ Armenia and Azerbaijan | felts, carpets, fine mats, wool, packsaddles |

STUDY QUESTIONS AND STUDENT ACTIVITIES

1. Working in groups, try to locate these places on a world map. Discuss what you can learn about these places by examining what they traded. (For instance, do you see signs that China was more advanced than some of the other places? Why or why not?)
2. Imagine what the various goods were used for, using a dictionary or encyclopedia to help.
3. Discuss the role each product must have played in the social life of these cultures.
4. Which of these goods are still traded today? What roles do they play in our culture? For goods no longer traded, what equivalents are used today?

14. Source: Ragaei and Dorothea El Mallakh, "Trade and Commerce", in John Hayes, editor, *The Genius of Arab Civilization, Source of Renaissance*, (Cambridge: The MIT Press, 1983), Chapter 9.

THE SIXTH VOYAGE OF SINDBAD

Sindbad is a famous character from the tales of *A Thousand and One Nights*. He is a merchant from Baghdad who takes seven fabulous voyages and experiences amazing adventures. The stories are told in the voice of Sindbad the Seaman himself after he had settled into wealthy retirement in a beautiful home. By chance, a simple porter whose name is also Sindbad is invited to dine with Sindbad the Seaman and his friends on seven evenings, to hear the stories of adventure and wonder. This version is adapted for young readers from the 19th-century translation by Richard Burton, a famous traveler and adventurer in Muslim lands. Notice how the story refers to places in the Indian Ocean that were well known to merchants and rulers in Baghdad. Such stories give us important evidence about Muslims' knowledge of geography and trade at that time. They also tell us much about the culture. Notice how religious expressions appear in the speech of the characters.



“**K**NOW, O my brothers and companions, that I lived some time, after returning from my fifth voyage, in great satisfaction and enjoyment. I forgot what I had suffered, seeing the great gain and profit I had made. One day as I sat making merry and enjoying myself with my friends, there came to me a company of merchants who told tales of travel, and talked with me of voyage and adventure and profit. Upon this I remembered my days abroad, and my joy at once more seeing my native land and gathering with my family and friends, and my soul yearned for travel. So, compelled by Fate and Fortune, I resolved to undertake another voyage. Buying fine and costly merchandise for foreign trade, I made it up into bales, with which I journeyed from Baghdad to Basra.

Here I found a great ship ready for sea and full of merchants and notables, who had with them valuable goods, so I embarked my bales therein. We left Basra in safety and good spirits under the safeguard of the King, and continued our voyage from place to place and from city to city, buying and selling and profiting and diverting ourselves with the sight of countries where strange folk dwell. And Fortune smiled upon us till one day, as we went along, behold, the captain suddenly wailed with a great cry and cast his turban on the deck. Then he buffeted his face like a woman and plucked out his beard and fell down in the waist of the ship nearly fainting for grief and rage, and crying, “Oh, and alas for the ruin of my house and the orphaning of my poor children!” So all the merchants and sailors came round about him and asked him, “O master, what is the matter?” For the light had gone out of their eyes.

And he answered, saying: “Know, O folk, that we have wandered from our course and left the sea whose ways we knew, and come into a sea whose ways I know not, and unless Allah vouchsafe us a means of escape, we are all dead men. Pray to the Most High that He deliver us from this strait. Perhaps there is amongst you one righteous person whose prayers the Lord will accept.” Then he arose and climbed the mast to see if there were any escape from that strait. And he would have loosed the sails, but the wind redoubled upon the ship and whirled her round thrice and drove her backward, whereupon her rudder broke and she fell off toward a high mountain.

With this the captain came down from the mast, saying: “There is no Majesty and there is no Might save in Allah, the Glorious, the Great, nor can man prevent that which is fore-ordained of Fate! By Allah, we have fallen on sure destruction, and there is no way of escape for us, nor can any of us be saved!”

Then we all fell to weeping upon one another and bidding one another farewell, thinking our days had come to an end. We had lost hope of life. Presently the ship struck the mountain and broke up, and all and everything on board were plunged into the sea. Some of the merchants were drowned and others

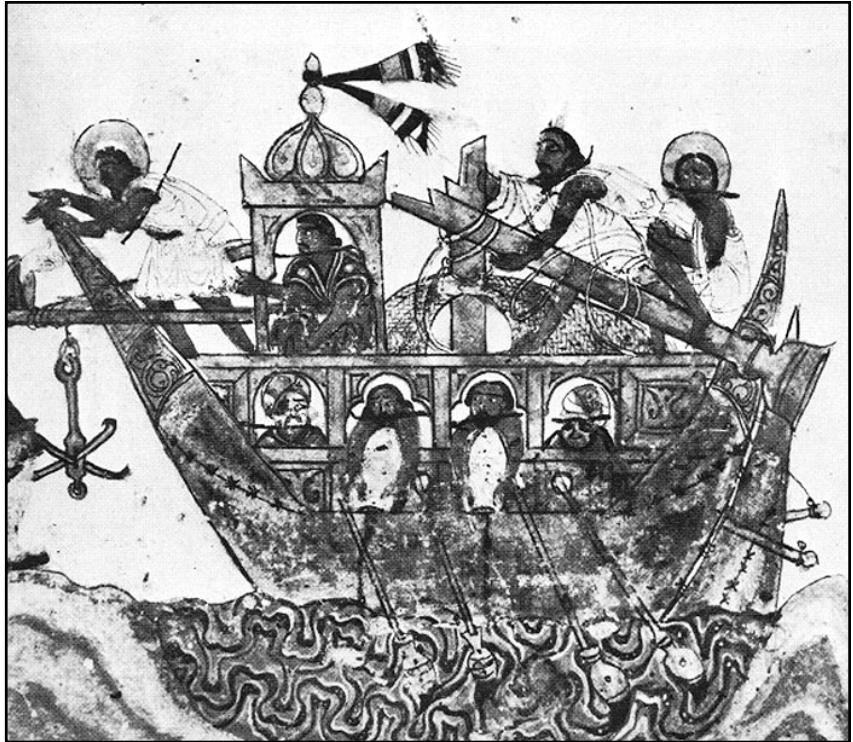
THE SIXTH VOYAGE OF SINDBAD (CONT.)

tried to reach the shore and save themselves upon the mountain, I amongst the number. When we got ashore, we found a great island, or peninsula, whose base was strewn with wreckage and goods and gear cast up by the sea from broken ships whose passengers had been drowned. The quantity was more than one could calculate. I climbed the cliffs and walked inland till I came to a stream of sweet water that welled up at the foot of the mountains and disappeared in the earth under the hills on the opposite side. All the other passengers went over the mountains to the interior, and dispersing hither and thither, became like madmen at the sight of the wealth and treasures strewn upon the shores.

As for me, I looked into the bed of the stream and saw a great plenty of rubies, and great royal pearls and all kinds of jewels and precious stones, which were like gravel in the bed of the rivulets that ran through the fields. The sands sparkled and glittered with gems and precious ores. Moreover, we found in the island abundance of the finest aloes, both Chinese and Comorin. And there also is a spring of crude ambergris, which flows like wax or gum over the stream banks, for the great heat of the sun, and runs down to the seashore, where the monsters of the deep come up and, swallowing it, return into the sea. But it burns in their bellies, so they cast it up again and it congeals on the surface of the water, whereby its color and quantities are changed, and at last the waves cast it

ashore, and the travelers and merchants who know it collect it and sell it. But as to the raw ambergris which is not swallowed, it flows over the channel and congeals on the banks, and when the sun shines on it, it melts and scents the whole valley with a musk-like fragrance. Then when the sun ceases from it, it congeals again.

We continued to explore the island, marveling at the wonderful works of Allah and the riches we found there, but sorely troubled for our own case, and dismayed at our prospects. Now we had picked up on the beach a little food from the wreck and divided it carefully, eating just once every day or two, fearing to die miserably of famine and fright. We were weak from seasickness and low diet, and my companions died, one after another, till there were only a few of us left. Each that died we washed and shrouded in some of the clothes and linen cast ashore by the tides. After a little while, my fellows perished one by one, till I had buried the last of the party and stood alone on the island. I had only a little food left—I who was used to having so much! And I wept over myself, saying: “Would Heaven I had died before my companions and they had washed me and buried me! It would have been better than dying with none to wash me and shroud me and bury me. But there is no Majesty and there is no Might save in Allah, the glorious, the Great!” So, after I had buried the last of my companions, I arose and dug myself a deep grave on the seashore, saying to myself: “When I grow weak and know that



An illustration of a shipwreck from 13th-century Baghdad.

THE SIXTH VOYAGE OF SINDBAD (CONT.)

death has come to me, I will cast myself into the grave and die there, so the wind may drift the sand over me and bury me.”

Then I fell to reproaching myself for my little wit in leaving my native land to travel again after all I had suffered during my first five voyages. I had not made a single voyage without suffering more horrible perils and more terrible hardships than before, and had no hope of escape from my present stress. I repented of my folly, especially as I had no need of money, having so much that I could not spend what I had—or even half of it—in all my life.

However, after a while Allah sent me a thought, and I said to myself: “By God, this stream must have an end as well as a beginning, so there must be an outlet somewhere, and perhaps it may lead to some inhabited place. So the best plan for me is to make a little boat big enough to sit in. I will launch it on the river, get into it and follow the stream. If I escape, I escape, by God’s leave, and if I perish, it is better to die in the river than here.” Then, sighing to myself, I set to work collecting a number of pieces of Chinese and Comorin aloes wood and I bound them together with ropes from the wreckage. Then I chose from the shipwrecks straight planks and fixed them firmly upon the aloes wood logs, making a raft a little narrower than the channel of the stream, and I tied it tightly and firmly as though it were nailed. Then I loaded it with the goods, precious ores and jewels, and the pearls which were like gravel, and the best of the ambergris crude and pure, together with what I had collected on the island and what I had left of food and wild herbs. Lastly, I lashed a piece of wood on either side, to serve as oars, and launched it.

My raft drifted with the stream, while I pondered my affair, and it didn’t stop drifting till I came to a place where it disappeared beneath the mountain. I rowed my raft into the place, which was intensely dark, and the current carried the raft down into the underground channel. The thin stream carried me through a narrow tunnel. The raft touched either side and my head rubbed against the roof. Then I blamed myself for having thus risked my life, and said, “If this passage gets any narrower, the raft will hardly pass, and I cannot turn back, so I shall inevitably perish miserably in this place.” I threw myself down on my face on the raft, because of the narrow channel, while the stream kept carrying me along. I knew not night from day for the gloom which encompassed me and my terror that I would perish. And in such a condition my course continued down the channel, which now grew wider, then narrower. Weary from the darkness, I fell asleep as I lay on the raft, and I slept not knowing if the time were long or short.

When I awoke at last, I found myself in the light of Heaven and opening my eyes, I saw myself in a broad of the stream and the raft moored to an island in the midst of a number of Indians and Abyssinians. As soon as they saw that I was awake, they came up to me and spoke to me in their language. But I understood not a word, and thought it was a dream or a vision that came to me from stress of fear. But I was delighted at my escape from the river. When they saw I neither understood nor answered, one of them came forward and said to me in Arabic: “Peace be with you, O my brother! Who are you, and how did you get here? How did you come into this river, and what kind of land lies behind yonder mountains, for we never knew anyone who came that way to us?”

Said I: “And upon you be peace and greetings of Allah and His blessing! Who are you, and what country is this?” “O my brother,” answered he, “we are husbandmen and tillers of the soil, who came out to water our fields and plantations, and finding you asleep on this raft, we laid hold of it and made it fast, until you should awake at your leisure. So tell us how you came here.”

I answered, “For Allah’s sake, O my lord, before I speak give me something to eat, for I am starving, then ask me what you will.” So he hastened to fetch me food and I ate till I was refreshed and my fear was calmed by a good bellyful and my life returned to me. Then I gave thanks to the Most High for mercies great and small, glad to be out of the river and rejoicing to be amongst them, and I told them

THE SIXTH VOYAGE OF SINDBAD (CONT.)

all my adventures from first to last, especially my troubles in the narrow channel. They consulted among themselves and said to one another, "There is no help for it but we carry him with us and present him to our King, that he may tell him his adventures."

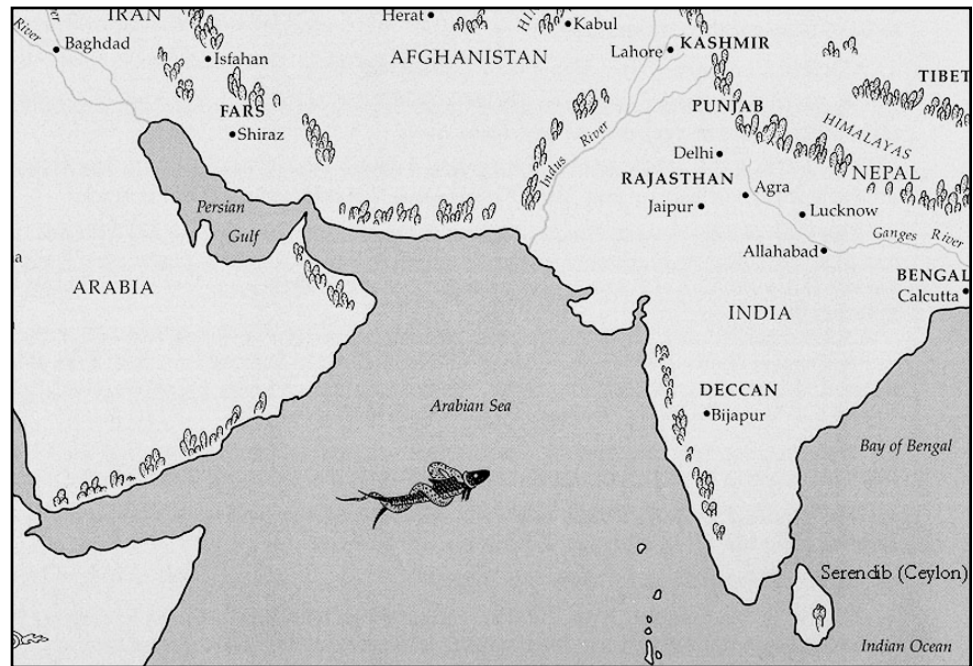
So they took me, together with the raft and its cargo of money and merchandise, jewels, minerals, and gold, and brought me to their King, who was King of

Serendib.¹⁵ They told him what had happened, whereupon he greeted me and bade me welcome. Then he questioned me about my condition and adventures through the man who spoke Arabic. I repeated my story from beginning to end, at which he marveled and expressed joy at my deliverance. I then rose and fetched from the raft a great store of precious ores and jewels and ambergris and aloes and presented them to the King. He accepted them, and treating me with utmost honor, I was lodged in his own palace. So I stayed with the chief of the islanders, and they paid me the utmost respect.

The Island Serendib lies under the equator, its night and day both numbering twelve hours. It measures eighty leagues long by thirty and its width is bounded by a lofty mountain and a deep valley. The mountain can be seen at a distance of three days, and it contains many kinds of rubies and other minerals, and spice trees of all sorts. The surface is covered with emery, wherewith gems are cut and fashioned. Diamonds are in its rivers and pearls are in its valleys. I climbed that mountain and comforted myself with a view of its marvels, which are indescribable. Afterward I returned to the King. All the travelers and merchants who came to the palace questioned me about the affairs of my native land and of the Caliph Harun al-Rashid, and I told them of him and of the things he was famous for, and they praised him because of this. I in turn questioned them about the manners and customs of their own countries and got the knowledge I desired.

One day the King himself asked me about the fashions and form of government in my country, and I told him about the Caliph's influence in the city of Baghdad and the justice of his rule. The King marveled at my account of his court and said: "By Allah, the Caliph's rule is indeed wise and his fashions are praiseworthy. You have made me admire him by what you tell me. Therefore I want to make him a present and send it by you."

Said I: "Hearkening and obedience, O my lord. I will bear your gift to him and inform him that you are his sincere admirer and true friend." Then I stayed with the King in great honor and regard for a long while. One day, as I sat in his palace, I heard news of a company of merchants that were fitting out ship for Basra, and said to myself, "I cannot do better than voyage with these men." So I rose without delay and kissed the King's hand and told him of my desire to leave with the merchants, since I longed



15. Serendib is the land called Sri Lanka today. Look up *serendipity* in a dictionary.

THE SIXTH VOYAGE OF SINDBAD (CONT.)

for my people and my own land. Said he, “You are your own master, yet if you wish to abide with us, do so on our own head and eyes, for you gladden us with your company.”

“By Allah, O my lord,” answered I, “You have overwhelmed me with your favors and good deeds, but I yearn to see my friends and family and native country.”

When he heard this, he summoned the merchants and gave me into their care, paying my freight and passage money. Then he bestowed on me great riches from his treasuries and entrusted me with a magnificent present for the Caliph Harun al-Rashid. Moreover, he gave me a sealed letter, saying, “Carry this with your own hand to the Commander of the Faithful, and give him many greetings from us!”

“Hearing and obedience,” I replied. The letter was written on the skin of the *khawi* (which is finer than lamb parchment and of yellow color), with ink of ultramarine, and the contents were as follows:

“Peace be with you from the King of al-Hind [India], before whom are a thousand elephants and upon whose palace walls are a thousand jewels. Praise to the Lord and praises to His Prophet! We send you a trifling gift, which we hope you will be pleased to accept. You are to us a brother and a sincere friend, and great is the love we bear for you in our heart. Favor us therefore with a reply. The gift befits not your dignity, but we beg of you, O our brother, graciously to accept it, and peace be with you.”

The present was a cup of ruby a span high, the inside of which was adorned with precious pearls; and a bed covered with the skin of the serpent which swallows the elephant, which skin has spots each like a *dinar* [gold coin] and whoever sits upon it never sickens; and a hundred thousand *mithkals* [measures] of Indian aloes and a slave girl like a shining moon.

Then I took leave of him and of all my intimates and acquaintances in the island, and embarked with the merchants aforesaid. We sailed with a fair wind, committing ourselves to the care of Allah (be He extolled and exalted!), and by His permission arrived at Basra, where I passed a few days and nights equipping myself and packing up my bales. Then I went on to Baghdad city, the House of Peace, where I sought an audience of the Caliph and laid the King’s presents before him. He asked me whence they came, and I said to him, “By Allah, O Commander of the Faithful, I know not the name of the city nor the way there!”

He then asked me, “O Sindbad, is this true which the King writes?” and I answered, after kissing the ground: “O my lord, I saw in his kingdom much more than he has written in his letter. For state processions a throne is set for him upon a huge elephant eleven cubits high, and upon this he sits having his great lords and officers and guests standing in two ranks, on his right hand and on his left. At his head is a man holding in hand a golden javelin and behind him another with a great mace of gold whose head is an emerald a span long and as thick as a man’s thumb. And when he mounts his horse, there mount with him a thousand horsemen clad in gold brocade and silk. As the King proceeds a man precedes him, crying, ‘This is the King of great dignity, of high authority!’ And he continues to repeat his praises in words I do not remember, saying at the end of his panegyric [poem of praise], ‘This is the King owning the crown whose like nor Solomon nor the Mihraj ever possessed. Then he is silent and one behind him proclaims, saying, ‘He will die! Again I say he will die!’ and the other adds, ‘Extolled be the perfection of the Living who dies not!’ Moreover, by reason of his justice and ordinance and intelligence, there is no *qadi* [judge] in his city, and all his subjects distinguish between truth and falsehood.”

Said the Caliph: “How great is this King! His letter has shown me this, and as for the mightiness of his dominion you have told us what you have witnessed. By Allah, he has been endowed with wisdom, as with wide rule.”

Then I related to the Commander of the Faithful all that had happened to me on my last voyage. He was filled with wonder and told his historians to record my story and store it in his treasury, for the instruction of all who might see it. Then he bestowed on me great favors. I went to my quarter of the city and entered my home, where I warehoused all my goods and possessions. My friends came to me and I distributed presents among my family and gave alms and charity. Then I gave myself to joy and merrymaking, and forgot all that I had suffered.

Such, then, O my brothers, is the history of what befell me in my sixth voyage, and tomorrow, *Inshallah* (God willing!) I will tell you the story of my seventh and last voyage, which is still more wondrous and marvelous than that of the first six. [Said he who tells the tale]: Then they set the table, and the company dined with him. Sindbad the Seaman then gave Sindbad the porter a hundred *dinars*, as he had done before, and they all went their ways, marveling at what they had heard. Sindbad the Landsman went home and slept. Next day he rose and prayed the dawn prayer and repaired to his namesake's house, where, after the company was all assembled, the host began to relate the tale of the seventh voyage of Sindbad the Seaman... ”



This picture made in Baghdad shows an Indian ruler of the Eastern Isles in the Indian Ocean receiving Muslim astrologers at court.

STUDY QUESTIONS AND STUDENT ACTIVITIES

1. What do the characters' actions and words reveal about Islam and Muslim culture? About social customs?
2. In a brief paragraph, describe the character of Sindbad. How does he react when in trouble?
3. Locate all of the place names mentioned in the story, and label them on a map. To what geographic region do they belong?
4. Why is the city of Basra important to Baghdad? Where is Basra, Iraq?
5. List as many precious goods as you can find mentioned in the story. Use an atlas and encyclopedia to find out where these goods originate today. Are any of these precious materials found in the Indian Ocean region?
6. Does the story contain any references to facts of geography? List them. How do you think this knowledge came to be part of the Sindbad stories?
7. The story contains a description of a diplomatic exchange between two rulers. Who are they, and where are their countries located? How does their exchange compare with diplomacy today?
8. Describe some of the dangers of sea travel. Why were there so many shipwrecks on the beach?



TIME TRAVELERS

Comparing the Values of 10th-century Europeans and Muslims, and Ourselves

TEACHER'S NOTES

Sometimes people are accused of being “ethnocentric”, a word which is made up of the Greek word “ethnos” meaning people, or society, and the word “center”, indicating that which is focused (or centered) upon. When one is said to be “ethnocentric” it means that they look at things through the eyes of their own culture and are unable to see things as individuals from another culture might view them.

One can also be “tempocentric”, meaning that events are viewed through the eyes of the viewer’s *contemporary time frame*, without giving any thought to how things may have looked during another era.

TIME CAPSULES: REFLECTIONS OF WHO WE ARE, WHAT WE DO, AND WHAT WE VALUE

This exercise is designed to have students look at themselves as citizens of their contemporary time frame and then look at how others may have lived during 10th-century Europe and Southwest Asia. The tool for this exercise is the use of Time Capsules. As you will see in the instructions that follow, students will create their own Time Capsule which represents contemporary life in the region where they live. They will then compare the items in their capsule to the items that would have accompanied two 10th-century religious pilgrims. One is a Christian named John who is walking from Paris to Jerusalem and the other is Musa who is walking from Damascus to Makkah.

SOURCES OF INFORMATION FOR PILGRIM INVENTORIES

- ✎ Aries, Philippe and Georges Duby, eds. *A History of Private Lives, Passions of the Renaissance*. Cambridge, MA: Harvard University Press, 1989.
- ✎ Burckhardt, Jacob. *The Civilization of the Renaissance in Italy*. New York: Penguin Books, 1990.
- ✎ Chamberlain, E.R. *Everyday Life in Renaissance Times*. New York: Capricorn Books, 1967.
- ✎ Clot, Andres. *Harun-al-Rashid and the World of the Thousand and One Nights*. John Howe, tr. New York: New Amsterdam Press, 1989.
- ✎ Dunn, Ross. *The Adventures of Ibn Battuta, A Muslim Traveler of the 14th Century*. Berkeley: University of California Press, 1989.
- ✎ Elgood, Cyril, tr. *The Medicine of the Prophet by al-Suyuti*. Cookeville, TN: Tennessee Polytechnical Institute, n.d.
- ✎ Nasr, Seyyed Hossein. *Science and Civilization in Islam*. Cambridge, MA: Harvard University Press, 1968.

TEACHER INSTRUCTIONS

NOTE:

1. You will not be handing out John and Musa’s time capsules until step 4-b. (see next page). Distribute the Student Handout “Contemporary Time Capsules”.
2. Have the students go through steps 1 and 2 of the STUDENT HANDOUT “CONTEMPORARY TIME CAPSULES”, WITHOUT indicating that this activity is designed to have them consider the issues of values, as well as our tendency to think in ethnocentric and tempocentric terms.
3. It is important to keep them uninformed about the purpose of the activity in order to avoid influencing the choices they make for their time capsules.

■ STEP ONE

Each student, **working alone**, will select items for a time capsule by following the instructions given in the STUDENT HANDOUT “CONTEMPORARY TIME CAPSULES”.

■ STEP TWO

The class will work as a **group** to determine which items they would select for a contemporary time capsule by following the instructions given in the STUDENT HANDOUT “CONTEMPORARY TIME CAPSULES”.

■ STEP THREE

THE TEACHER GUIDES THE CLASS THROUGH THE FOLLOWING DISCUSSION QUESTIONS:

1. What items were chosen for the **group** time capsule?
2. How do they differ from some of the time capsules you developed on an individual basis?
3. Did you all agree quickly on which items were to go into the group time capsule? If not, what different values were reflected by the items you and your classmates **disagreed** about ?
4. What values do you think you are all representing, based upon the choices you all **agreed** upon?
5. How do you think time capsules might differ from region to region or between different time frames you have studied in history classes?



■ STEP FOUR

a) READ THE FOLLOWING TO YOUR STUDENTS:

“In this exercise we will be looking at travelers from both the Muslim world and from Europe. At a time when travel was difficult, slow and dangerous, some people still left their homes for various reasons. Scholars, soldiers, merchants and religious pilgrims were among the most common adventurers.

The two handouts that you are about to read contain a list of items found in two accidentally abandoned “time capsules.” One list represents the belongings of a Christian pilgrim of the 10th century, returning from a visit to the Holy Land. The other represents a 10th-century Muslim from Damascus returning home after completing the Hajj (pilgrimage) to Makkah.

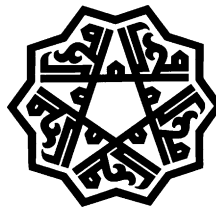
The two time capsules reflect what these adventurous travelers’ belongings reveal about their time, cultures and values. This exercise encourages you to also consider how things that we own reflect the values of our time and culture.”

b) DISTRIBUTE THE HANDOUTS:

- “Background: An Accidental Find”, and
- “John” and “Musa” Time Capsules

c) GUIDE YOUR STUDENTS THROUGH A DISCUSSION OF THE FOLLOWING ISSUES AND QUESTIONS:

- Individually, review the items in each time capsule, and list similarities and differences between these two individuals and the societies they represent.
- As a group, list the values reflected in the items these travelers carried with them. Have someone write these values on the black board.
- Contrast the values of the 10th-century travelers to the values reflected in the time capsule created earlier by the whole class.
- How does modern society differ from 10th-century society in possessions, in how we spend our time, and how we relate to other people in our lives? (for example, what items would we carry on a long trip? Is this an indication of a society’s values?)



CONTEMPORARY TIME CAPSULES

BACKGROUND:

Time Capsules are a modern invention, in which people encase items that they have selected as representative of their culture at a very specific point in time. A capsule is dated and sealed, and then directions are written on the outer cover, telling when the capsule should be opened and analyzed. People lucky enough to be present when a capsule is opened have the opportunity to learn a bit about the history of an earlier era, and to understand what everyday life was like, and what was valued by people at the time that the items were encased.

STUDENT ACTIVITIES:

← STEP ONE

Create a list of what *you* would put in a time capsule that represents the place, time and society in which you live today. Keep in mind that someone will open this capsule, let's say in 200 years, in order to gain a better understanding of what life was like at this time. Make a list of no more than 15 objects that you would choose to place in this capsule. Chose your items carefully so that the capsule would offer a good representation of today's society.

← STEP TWO

Now do the same as a class. Decide *as a group* what would go into this capsule, and have a student list the items on the blackboard. Again, limit yourselves to 15 items.



STUDENT HANDOUT

SETTING THE SCENE: AN ACCIDENTAL FIND

People from the past have unintentionally left us time capsules. Archaeologists unearth sealed graves full of artifacts that give us a window on the beliefs, daily life and values of the living who placed them there. Occasionally, moments in time are captured by accidents and natural disasters. The eruption of Mt. Vesuvius preserved in ash a record of life in Pompeii, Italy. Remember the Bronze Age Iceman found in the Alps with all of his tools, clothing and even his body preserved?

Let us imagine that archaeologists could find a perfectly preserved moment in the lives of two religious travelers from the year 1100 CE. One is a Christian pilgrim from Paris, traveling on foot to visit Jerusalem, in the Holy Land. The other is an Arab Muslim from Damascus, on his way to make *Hajj*, or pilgrimage to Makkah. Coincidentally, after completing their journeys, these two travelers have fallen ill on the road, near a Christian monastery that treats religious pilgrims, regardless of their faith. Unfortunately, as with many pilgrims of that time, neither John nor Musa survive. The monks wrap each man in a shroud and bury him. Because of the fear that these two pilgrims may be carriers of the plague, the monks ensure their own safety by putting the belongings of each traveler in a wooden case and burying each case at the edge of the forest, far from the monastery. (They understood that, if infected, burning the belongings would spread the plague.) The possessions of these two adventurous but ordinary travelers reflect the culture, knowledge and values of their time in a way that history seldom records.

Centuries later, these two cases are discovered by farmers clearing the land. Study the contents of the bundles and try to build a picture of the lives of these two men and of the culture to which they belonged.

TIME CAPSULE OF JOHN

A 10th-Century European Christian on the Pilgrimage to the Holy Land

- ☑ One incomplete, well used, hand-written copy of the Bible.
- ☑ A rosary made of pieces of wood.
- ☑ A cloak of wool.
- ☑ A pair of boots, made of leather with wooden soles.
- ☑ A linen tunic, obviously of good quality because it is dyed a bright color.
- ☑ One hooded cloth cap dyed to match the tunic.
- ☑ Pilgrimage souvenirs to be given to family members as gifts:
 - Tears of the Blessed Virgin Mary, in a glass vial (purchased in Jerusalem).
 - A small piece of bone, from a Christian martyr.
 - Feathers of the Angel Gabriel (purchased in Jerusalem).
 - A small strip of silk to show to his family.
 - A valuable spice called "Fel Fel" (pepper).
 - A wooden pen box decorated with inlaid camel bone.
- ☑ Items to protect the traveler from plague:
 - A bone from the head of a toad.
 - A hollow hazel nut, filled with mercury.
 - Prayers written on a piece of paper and worn under his tunic.
 - A list of Holy Names of saints and the Trinity.
 - A wooden crucifix (a gift from a relative in Paris).
 - A small amount of vinegar.
- ☑ A set of tin cooking utensils.
- ☑ One ale mug made of pewter (a mixture of lead and tin).
- ☑ Turnips, cabbage, strips of dried pork, salted fish and cheese.
- ☑ Several loaves of "maslin", a dark bread made of wheat and rye.
- ☑ A large wooden staff to be used as a walking stick (and as a weapon against thieves, if necessary).
- ☑ A donkey, not to be used for riding as much as for transporting goods.
- ☑ Two small animal skin pouches; one for ale, one for wine.
- ☑ Cobbler's tools and a small, three legged wooden bench. Tools of his trade so he can earn money during his travels.
- ☑ Saffron, a yellow spice, bought at the market in Constantinople. To be sold to wool dyers in Europe to help finance his travels.
- ☑ A leather waist pouch that ties around him because the tunic has no pockets.



TIME CAPSULE OF MUSA

A 10th-Century Arab Muslim Making the Hajj to Makkah

- ☑ One incomplete, well-used, handwritten copy of the Qur'an.
- ☑ A prayer rug.
- ☑ A string of prayer beads. Some made of wood, some of glass.
- ☑ A turban to keep the heat off his head.
- ☑ A cape made of damask, a cloth from Syria.
- ☑ Leather boots from Central Asia (purchased in Baghdad).
- ☑ A wooden box decorated with inlaid camel bone, filled with tea.
- ☑ A small metal vial of perfume (rose water).
- ☑ Pilgrimage souvenirs to be given to family members as gifts:
 - One book on mathematics and astronomy (from the book market in Damascus).
 - An inexpensive ring with the letter Alef (A) on it, for Allah.
 - Saffron and other spices from Yemen (purchased in Makkah).
 - A valuable spice called "Filfil" (pepper).
 - Strips of thin fabric with verses of the Qur'an written on them.
 - A carved ivory comb from Africa.
- ☑ Items to protect the traveler from plague:
 - Pieces of paper with verses of the Qur'an written on them.
 - A necklace with mystical numbers written on it.
 - A list of the 99 Holy Names of Allah.
 - Several simple strips of cloth, tied shut with string. Filled with medicinal herbs.
 - Lemons and honey.
 - Lavender to be smelled and sandal wood to be burned.
- ☑ Flat bread, dried fruits, dates, olives, mint, oranges and limes.
- ☑ A female camel, used for transporting goods and providing milk and yogurt.
- ☑ A few pieces of silk to be sold in Makkah to support his travels.
- ☑ Knives, razors, leeches and vivisection cups to enable him to work as a barber/healer during his journey.
- ☑ A metal sheath with a dagger, worn at the waist (to be used for food preparation and for protection from thieves if necessary).



Certificate issued at Makkah showing that the bearer had completed the pilgrimage.



A caravan heading towards Makkah for the pilgrimage.



EXPLORING VALUES ACROSS CULTURES AND IN OUR TIME

SEGMENT 1: COMMERCE AND TRAVEL

What are values? The dictionary defines *values* as “principles, standards, or qualities considered worthwhile or desirable.” Use the list below and fill in additional values discussed in Segment 1 of this unit. Investigate the cultural values discussed in this segment from the following points of view:

- ✿ How were these values expressed in European Renaissance society? What events, cultural products and personal stories (biographies) are related to these values? What is the relationship between these values and religious beliefs and ideas in Renaissance Europe?
- ✿ How were these values expressed in Muslim society? What events, cultural products and personal stories (biographies) are related to these values? What is the relationship between these values and religious beliefs and ideas in the Muslim world?
- ✿ Do these values find expression in 20th-century society? If so, what recent events, cultural products and personal stories (biographies) are related to these values? What is the relationship between these values and religious beliefs and ideas in modern life?

List some of the cultural values discussed in Segment 1. Here’s a list to help get you started:

1. Seeking knowledge through travel
2. Travelling to fulfill religious obligations
3. Trading and communicating with people of different cultural backgrounds and geographic region
4. Enjoying prosperity and material comfort
5. Experiencing and sharing a sense of place and identity
6. Expressing curiosity about the physical and spiritual world beyond

■ Identify other values discussed in the segment and write them below.

7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____



ADDITIONAL SUGGESTIONS FOR STUDENT ACTIVITIES

1. Research the life of Cheng Ho (sometimes spelled Zheng He), the 15th-century Chinese Muslim explorer. Determine which countries he visited and mark them on a map. Can you find any records of him making the *Hajj* (pilgrimage) to Makkah?
2. On a map, draw the paths of the travels of Ibn Battuta, the 14th-century Moroccan explorer and scholar. He traveled 75,000 miles. How does that compare to the journeys of Marco Polo? Did they visit any of the same sites?
3. Travelogues are an important source of knowledge for those who are studying cultures of the past. Write a travelogue which describes your journey as an 8th-12th-century European or Arab merchant.
 - Decide which city you live in, what goods you will trade, what cities you will trade with and how you will get there.
 - What problems do you think you may encounter en route?
 - What different cultures would you need to deal with in your travels?
(Keep in mind that you would have run into some groups which you may not have expected, such as Buddhist monks in Persia or well-established communities of Arab merchants along the coastal areas of India.)
4. Read one or more of the seven Sindbad episodes, from a library edition. Note what other places, goods and people are mentioned (in addition to monsters, of course). Might there be a grain of truth to the tales? Write your own fanciful travel story. Small groups may be interested in acting out one of the episodes.
5. Use the handout “Exploring Values Across Cultures and In Our Time” (previous page) to compare and contrast the two historical periods described with the students’ own world of values. Each of the three bulleted points of comparison may be explored in a writing assignment (one paragraph per bullet, or a three-paragraph essay). Alternatively, the points may be discussed in a graded discussion timed to last 10-15 minutes.

