

Part III:

Student Text

Chapter Two



ISLAM AND MUSLIM CIVILIZATION

CHAPTER TWO

"Muslim Civilization"

Written by Susan Douglass

Illustrated by Abd Al-Muttalib Fahemy and Susan Douglass





Muslim Civilization

وَلْتَكُنْ مِنْكُمْ أُمَّةٌ يَدْعُونَ إِلَى الْخَيْرِ وَيَأْمُرُونَ بِالْمَعْرُوفِ
وَيَنْهَوْنَ عَنِ الْمُنْكَرِ وَأُولَئِكَ هُمُ الْمُفْلِحُونَ

*And let there be from you a nation,
Inviting to all that is good,
Enjoining what is right and forbidding what is wrong;
Such are they who are successful. (Qur'an 3:104)*

Muhammad ﷺ was a humble man who never learned to read and write. Yet scholars spend their lives studying the message that Allah revealed to him. He recited verses whose beauty and wisdom is a measure for poets. He led Arabia during his lifetime. He became a model for millions of people all over the world. In this chapter, we will explore history from about 1000 years after Muhammad's death in 632. We will study the civilization that Muslims built. We will see how they tried to meet Islam's high standards.



Jihad means "to make an effort." Anything a Muslim does requires an effort to overcome difficulties. The main difficulty in spreading Islam was that some rulers did not want their people to hear about Islam. These rulers wanted to decide the faith of their subjects. Those who disagreed suffered persecution. Muslim soldiers fought to open these lands to Islam by making treaties or defeating these rulers.



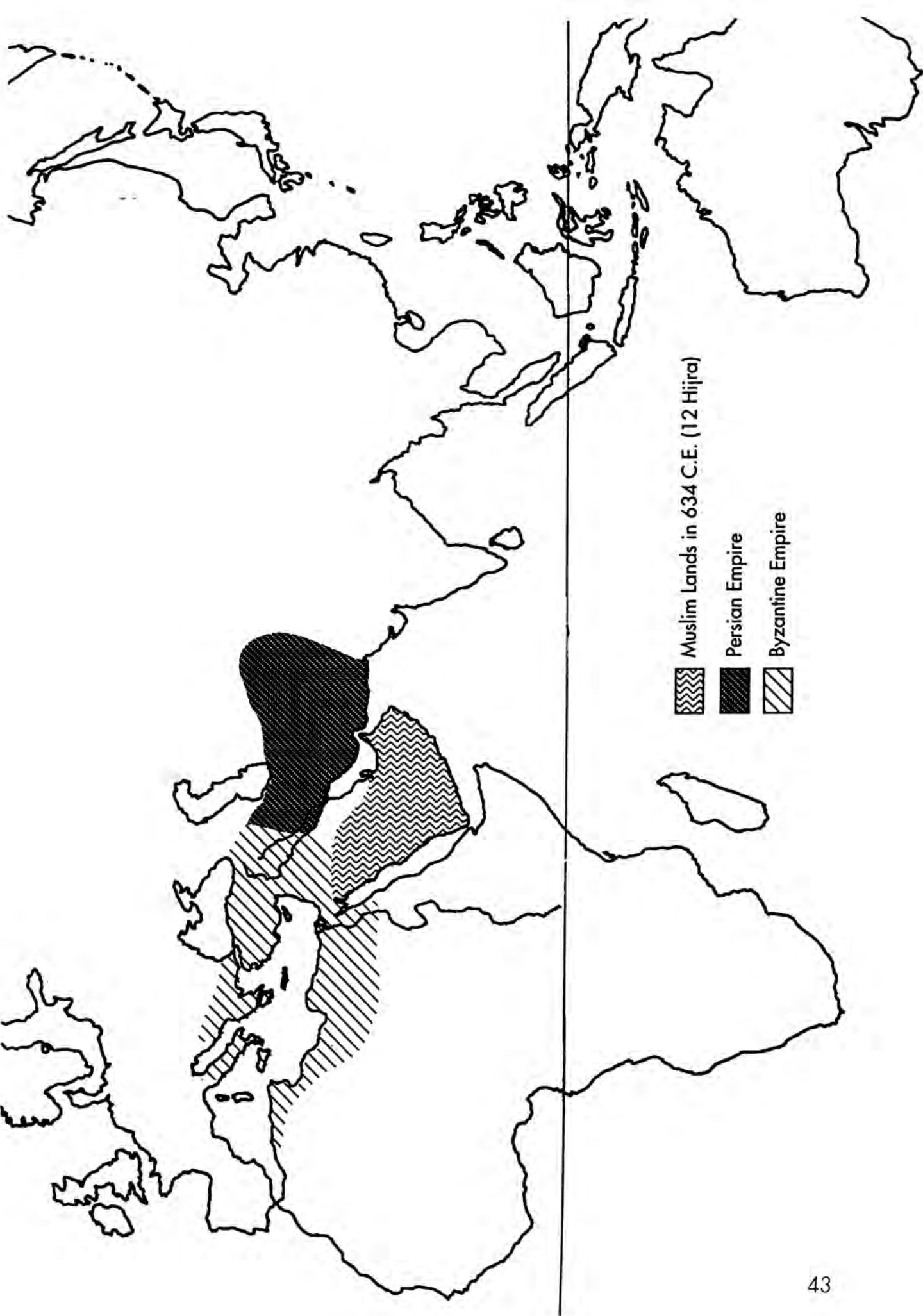
Expansion and the Spread of Islam

After Muhammad's death, Islam spread beyond the borders of Arabia. In less than 100 years, the small community had spread to Asia, Africa and Europe. Military victories carried Islam rapidly across these continents. Two empires fell in its path. Trade and science carried Islam even further. In this section, we will explore how the Muslim lands expanded.

FIGHTING AGAINST PERSECUTION

The Arabic word **jihad** means to make an effort. Islam teaches that the most difficult jihad is trying to be a good person. Jihad also means fighting to defend Islam. The Qur'an permits fighting against **persecution**. When people are **persecuted**, they are not allowed to practice or tell others about their faith. Freedom of religion or speech was not guaranteed then. People had to follow the religion of their king or risk trouble. Quraysh had persecuted Muhammad and his followers. In the Roman and Persian Empires, Jews and Christians often suffered prison or death if their beliefs were different from the emperor's.

To invite people to Islam, it was necessary to persuade or defeat their leaders. Before any fighting, leaders were invited to learn about Islam. They were asked to let Muslims spread the message freely. They were asked to let people practice their chosen faith. If they refused, Muslim armies fought to open these lands to the Islamic message.



Islam forbids forcing others to become Muslim during **jihad**. A person should accept Islam because he or she is convinced that it is true. A person is Muslim in Allah's eyes only if he or she is sincere. The Qur'an says:

لَا إِكْرَاهَ فِي الدِّينِ قَدْ تَبَيَّنَ الرُّشْدُ مِنَ الْغَيِّ

*Let there be no compulsion in religion,
Truth stands out clearly from error. (Qur'an 2:256)*

CONDITIONS FOR WAR IN ISLAM

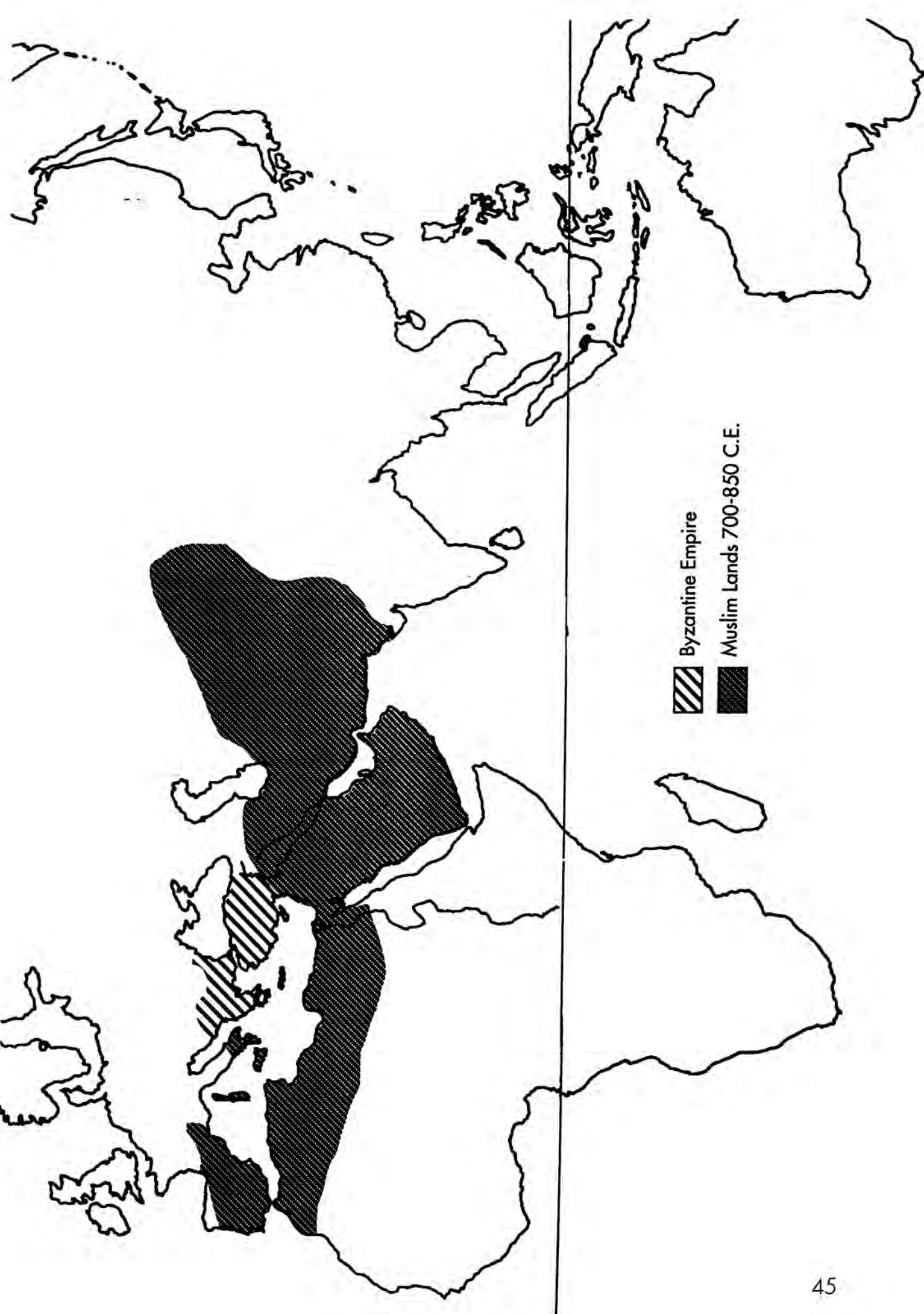
Islam permitted fighting only under strict conditions. The Qur'an forbids starting a war to capture land or goods. Armies may fight against soldiers, but not attack towns, villages, or unarmed folk. Children, women, and old people must be protected. Armies must not steal supplies or destroy crops and animals. Prisoners must be treated well. Captured goods must be divided fairly, including a part for charity.

Throughout most of history, there were no such controls on fighting. War was terrible for people in cities and countryside. Opposing armies trampled back and forth across the land. It did not matter much who won. Victory for either side meant destruction first, then heavy taxes.

MUSLIM ARMIES DEFEAT EMPIRES

The Persian and Byzantine Empires were weak from constant fighting. Jews, Christians and other groups suffered persecution. Expensive armies used up tax money. War interrupted trade, destroying cities and farm land. Taxes meant great hardship for citizens. Many people were unhappy with their rulers.

Some Arab tribes on the edges of the two empires joined the Muslims. Others wanted independence. Some Arabs fought against the Muslim armies at first. Both empires watched events in Arabia. They never expected desert tribes to defeat great powers like themselves.



Byzantine Empire
Muslim Lands 700-850 C.E.

The Muslim state expanded in two directions at once. In the Northwest, Muslim armies took Palestine and Syria from the Byzantines in 637. Khalifah Umar Ibn Al-Khattab accepted the keys to Jerusalem. In the Northeast, Muslims defeated the Persian army near the Tigris-Euphrates River. (See map, p. 43.)

Muslim armies kept moving east and west. The Persians lost the heart of their empire in heavy fighting. Persians fought with heavy equipment and elephants. The Muslims' faith gave them strong fighting spirit. Their light armor, quick horses and camels were effective in desert battles. By 651, the Persian empire was finished. The last emperor was killed by his own general.

In the West, the Muslim army took Egypt. They camped on the Nile River where the delta begins, founding the city of Cairo. With the help of Syrian and Egyptian seamen, they built a navy. Together they defeated the Byzantine navy. Cyprus, Sicily, and other islands in the Mediterranean added to Muslim lands.

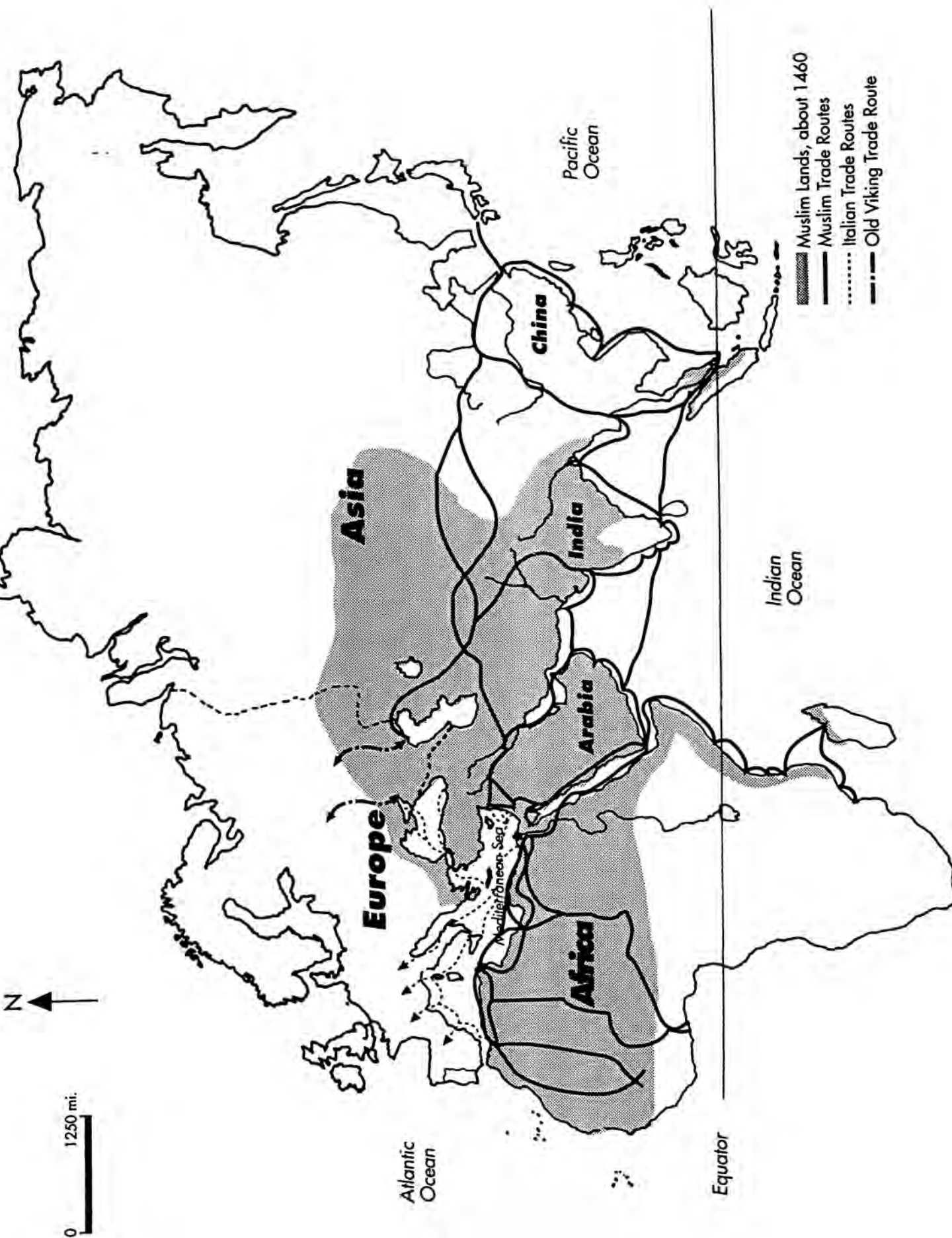
By 711, the Muslims had moved across North Africa to the Atlantic Ocean. Many nomadic **Berber** tribesmen of the Sahara desert accepted Islam. They joined the troops who carried Islam to Spain. By 732 they reached southern France and Switzerland. Muslims ruled in Spain (**Al-Andalus**) for 700 years, until 1492.

Parts of northern India came under Muslim rule. By 750, Muslims stood at the borders of China on important Asian trade routes.

In a little more than 100 years, lands from the Atlantic Ocean to China were open to Islam. Two empires had fallen. Many people accepted Islam and began to change their way of life. Other religious groups practiced their faiths in safety. Many of these accepted Islam much later. (See map, p. 47)

Islam continued to spread steadily. The strength and size of the Muslim state attracted many to Islam. Scholars' books spread Islamic ideas far beyond their borders. Islam spread along trade routes by land and sea.

Traders spread their religion and way of life by example. They carried Islam deep into Asia on the Silk Road. They brought it to the coasts of India and Africa, to Southeast Asia and the Spice Islands. Caravans brought Islam



across the Sahara Desert to West Africa. Wherever Muslim traders went, they built **masajid** (mosques). Scholars and judges followed. By trading with Muslim merchants, people learned Islamic laws and Arabic language. Many were attracted to the simple faith. (See map, p. 47)

Islam is still growing. Muslims travel to Europe and North America to study or find work. As they did long ago, Muslims bring along their way of life and worship. Some citizens of Western countries have accepted Islam. Fourteen centuries after Muhammad ﷺ, people are still learning about the message of Islam.



Understanding Section 1:

1. Give an example of religious persecution long ago.
2. Why did Islam permit fighting?
3. Why does Islam place strict conditions on Muslim armies?
4. List several reasons why the Persian and Byzantine Empires were weak.
5. From each of the following pairs, choose the land that came under Islamic rule first:
 - a. Palestine — Persia
 - b. India — Egypt
 - c. Southern France — North Africa
6. How long did the Muslims rule Spain? For extra credit, what other historic event happened in 1492?
7. Name three ways by which Islam spread to other lands.



Governing the Lands by Islam

What problems did the new Muslim rulers face? First, the Muslim lands expanded very fast. The state stretched from the Atlantic Ocean to China, a journey of several months. Communication was no faster than a swift horse. Second, the people of these lands had diverse (or differing) cultures and traditions. Some were nomads like the Arab tribes, or farmed in villages. Others lived by trading in cities. They had different languages and religions. Third, the new lands also had **diverse** geography. Arabia, Saharan Africa and parts of Asia were deserts. Some places had enough rain for farming. Other lands, like Egypt and Iraq, needed irrigation. It would take time to join many lands and peoples under one government.

THE TASK OF GOVERNING

Think of the early Muslim state as a tug-of-war. On one side, the Arabs brought a new system. Ideas of equality and justice must become practical ways of ruling. The state needed **authority** (strong and respected leadership). Advisors to the ruler should represent many groups. Local governments must collect taxes and keep order. The state needed just laws, with courts to enforce them. In Islam, laws must apply equally to rich and poor. An army must protect the state without becoming too powerful. Communication and education must connect many lands and peoples into one body.

On the other side of the tug-of-war were people and traditions. People were used to kings in the old empires. The wealthy enjoyed a fashionable life in fine palaces. Most people expected the new rulers to act like their old ones.

Wealth acted like a great weight pulling against the Muslims. The Qur'an and Muhammad ﷺ warned that riches can divide people. Wealth can bring hatred and envy. Some Muslims began to compete for the power that wealth can bring.

ARABS GOVERN THE NEW LANDS

After the Persians' and the Byzantines' defeat, their citizens were hopeful. Muslim leaders offered the cities protection. Land and common people were safe. Jews, Christians and other groups practiced their religions. Most citizens paid less in taxes. If these people had fought against Islamic rule, the Muslim lands could not have expanded so fast. The Arab armies were not large enough to control the new lands and expand at the same time.

Arabs migrated to the new lands. Army camps turned into towns as soldiers built homes and **masajid** (mosques). Neighboring people joined them. Makkan traders settled in fertile Syria, joining their long-time trade partners.

The Arabs' knowledge of Islam made them best suited to govern the new state. In time, other groups would enter Islam and share power with the Arabs. From the start, Arab rulers needed help from local people. Their governments needed many officials, and most government records were written in Greek or Persian. Arabs kept many officials who had served the Persian and Byzantine empires. It took many years to change these old systems and find new Islamic ways.

THE RIGHTLY GUIDED KHALIFAHS

After the death of their Prophet, the Muslims had to choose a new leader. They called the leader **Khalifah**. That means successor to Muhammad ﷺ. However, the Khalifah would not receive revelation like a prophet. His job was to lead Muslims by following the Qur'an and Muhammad's example.

The first four rulers of the Muslim state are known as the **Rightly Guided Khalifahs**. In 632, the community chose Abu Bakr as Khalifah. When Abu Bakr died two years later, Umar Ibn Al-Khattab ruled for 10 years. Then Uthman Ibn 'Affan served for 12 years. Ali Ibn Abi Talib was Khalifah for 5 years. These leaders governed the Muslims for almost 30 years, until 661.

The Rightly Guided Khalifahs lived simply. They gave wealth rather than taking from the treasury for themselves. With wisdom, courage, and knowledge of Islam, they sought solutions to new problems. They felt responsible for the good of all the people. They made careful decisions for the future. Historians still admire these leaders and learn from their wisdom. From 717 to 720, a Khalifah named Umar Ibn Abd Al- Aziz also ruled very justly. He is called the fifth Rightly Guided Khalifah.

They worked hard to govern well. Their capital was at Madinah, far away from the lands they controlled. They began projects to connect the Muslim lands. They tried to appoint wise and honest officials to serve the people. They listened to advisors and heard advice from rich and poor alike.

In spite of the Khalifahs' care, some governors gathered too much power. People complained of injustices. Although the Khalifahs tried, these governors were difficult to control. Wealthy and powerful people supported these governors, and they became too strong for the Khalifah to control.

The period of the Rightly Guided Khalifahs ended with a time of dispute, called **fitnah** in the Muslim community. There was a conflict over who should be Khalifah after Uthman Ibn 'Affan. Some officials appointed by Uthman as governors were not behaving as Muslim leaders should. Competition over land and wealth caused jealousy between groups in the growing state. A group of soldiers from the provinces murdered Uthman in his house. When Ali Ibn Abi Talib was chosen Khalifah, some people did not accept him. Trouble came from Syria. Its governor was Mu'awiyah, a man from Uthman's family. He had many wealthy supporters. A relative of Uthman, Mu'awiyah wanted his murder punished. Mu'awiyah declared himself rival Khalifah. Civil war threatened. Khalifah Ali moved the capital city to Iraq.

After several years, the bitter dispute continued to disturb the state. Respected companions of Muhammad ﷺ were horrified by the situation. They did not want to take sides. They tried to find the best way to keep the Islamic state united.

After five years as Khalifah, Ali Ibn Abi Talib was murdered. Mu'awiyah's position as Khalifah became stronger. Later, when Mu'awiyah's son Yazid ruled the Muslim state, Ali's followers in Iraq rebelled. At Karbala, in the Iraqi desert, the Prophet's grandson Husayn was killed. The event shocked the Muslim communi-

ty deeply. Even now, Muslims feel great sadness over this event. The **fitnah** events would disturb the Islamic community for many generations to come.

THE Umayyad RULERS

Mu'awiyah moved the official capital to Damascus, where his supporters were. Mu'awiyah also changed the way of choosing the Khalifah. He failed to let the community choose among its best leaders. Instead, he named his son, Yazid. They founded a **dynasty**, or rule by a family through many generations. The Umayyad dynasty ruled for about 130 years, until 750.

The Umayyads were more like the kings their subjects were used to. They lived in palaces, enjoying the arts and luxuries of the imperial city. Military troops in Syria supported the Umayyad rulers. They were harsh with people who disagreed with them. Unity was enforced with might. The Umayyad rulers became more distant from the people they ruled.

Umayyad rule benefited the Muslim lands. They built roads, canals and harbors. They had a postal system like the pony express. They changed official record-keeping to Arabic language. Arts and sciences began to develop, along with the system of Islamic law. The state expanded rapidly under Umayyad rule.

THE ABBASSIDS START A NEW DYNASTY

The next ruling family was called the Abbassids. Their supporters were new converts to Islam. They wanted to share power with the ruling Arabs. Many other Muslims also hoped for change. But when Abbassid rulers came to power, they became like emperors. The last member of the Umayyad family fled to **Al-Andalus** after his family was killed. They built a dynasty at the city of **Cordoba**.

The splendid city of **Baghdad** was built as the Abbassid capital in Iraq. It became a great center of administration and trade. The Abbassid court set fashions for luxury and style in art and poetry. Abbassid rulers built mosques, roads, hospitals and places for pilgrims and traders to rest. They spent freely on arts and learning, too. Fine libraries, schools, universities and hospitals were built during their rule.

This is how an artist thinks the Round City, the Abbasid rulers' capital at Baghdad may have looked. The city-within-a-city held the entire government. In the center was the khalifah's palace and masjid. The inner ring of buildings housed his family and high officials. The outer ring held government offices, libraries, housing and markets (The shops were later moved out.). Around the outside were double walls, and four gates leading to important lands of the Muslim state. The Tigris River flows by, and the busy city of Baghdad, with its many canals, spread out around the Round City. It was the only round-shaped city in the world. To draw this picture the artist had to study descriptions of the place by Muslim writers from long ago and modern historians.



Muhammad ﷺ had led the prayer and worked side by side with his people. The Abbassids ruled from behind high palace walls. Jealous officials and luxury kept them far from ordinary people. Many Muslims were shocked to see people kiss the ground and bow before them. This was the ignorance which Islam had come to destroy. Muslims are supposed to bow down only to Allah. The Muslim lands were rich and powerful, so most people accepted Abbassid rule, but many Muslims felt that some of the Abbassid rulers' ways were against Islamic teaching.

GOVERNMENT BREAKS UP INTO SMALL STATES

Many groups opposed the Abbassid rulers. In time, the government broke up into small states ruled by princes and governors. They looked to the Khalifah as leader of the Muslims, but they considered their own interests before all others. By 945, they were really independent rulers, and the Khalifah had become just a figure. In Egypt and Spain, opposing dynasties ruled. In the lands between, many jealous princes ruled over cities, castles and their countryside. They often fought among each other.

The Islamic state lost its unity. Many of its leaders forgot the example of Prophet Muhammad ﷺ. Invaders took over some of the Muslim lands. One example of these losses was Spain. Christian kings and soldiers took cities and lands of Muslim Spain. Gradually, the Muslims were pushed out of Spain completely by 1492.

Another example was the **Crusades**. Crusaders were European Christian armies sent by the Church in Rome. They wanted to capture Jerusalem and surrounding lands where Jesus had lived. These wars started in about 1100 and ended just before 1300. During the Crusades, important Muslim cities like Aleppo, Damascus, and even Jerusalem fell to the Christians. Crusader armies took advantage of disunity in the Muslim lands. Their knights and nobles set up governments in those places. Many Muslims, Jews and even Eastern Christians lost their lives. Finally, the Crusader States fell and the land returned to Muslim rule.



Even long ago, Muslim doctors practiced medicine in hospitals. They used medicines from plants grown in the hospital herb garden or brought from distant lands. They performed surgery with instruments they invented. Some of these are still used today. Poor people were treated without paying. Muslim doctors even treated some Christian knights during the Crusades. Muslim medical books were used in many lands.

NOMADIC WARRIORS FROM CENTRAL ASIA

After the Abbassids, tribes of Central Asian nomads played important roles in Islam. They came as warriors and invaders, and later became Muslims. They set up governments and contributed to Muslim culture. These Turkish and Mongol tribes brought huge lands into the fold of Islam.

The first important tribe was the Seljuk Turks. They were brave and skilled soldiers whom the Abbassids used as guards. In time, the Abbassid rulers depended upon these soldiers to keep them in power. Finally, they even chose the Khalifah. In 945, the Seljuks took the city of Baghdad. They set up a dynasty in eastern Muslim lands.

In the 1200s, a great disaster happened in Europe and Asia. Central Asian nomads called the **Mongols** began a great invasion. They were skilled horsemen, loyal tribesmen, and fierce warriors. They formed an efficient military machine that rolled over China, Europe and the eastern Muslim lands. They destroyed Baghdad in 1258. Muslim troops finally stopped the Mongols in a famous battle at Ain Jalut ("Eye of Goliath") in Palestine.

In a short time the Mongols built the largest empire the world had ever seen. The Mongol Empire did not last. In less than 100 years, their state broke up. By the 1300s, most of the Mongols had become Muslims. They set up governments in Persia, India, and Russia. They brought Muslim scholars and judges to their royal courts. Beautiful buildings, books and works of art soon appeared. The Mongols, or Mughals, ruled most of India until the British conquered them in the 1800s.

OTTOMAN TURKS RULE

In 1326, a Muslim group called the Ottomans took over Byzantine Turkey. The group is named after one of its important leaders, Osman (Uthman). In 1453, they took Constantinople and renamed it **Istanbul**. Then they expanded in all directions. Much of Eastern Europe, the Mediterranean lands and Arabia came under Ottoman control.

Ottoman rule did much to restore unity to the Muslim lands. The arts, sciences and building flowered again. Trade and craft goods from Ottoman lands were



The qadi, or judge, was a very important person in Muslim society. Muslim judges were scholars in sharia'h, or Islamic law. They helped govern and keep peace in Muslim lands. They settled disagreements between individuals and families. Men and women brought their cases, such as marriage, crimes, land and goods to be decided by the qadi.

known around the world. Their well-organized army became a model for European armies. The Ottoman state included people of many cultures, religions and languages. Their system of government lasted until the 20th century.

Many smaller states in Asia, Africa and the Spice Islands governed Muslims until modern times. You may study some of these states when you learn about Africa and Southern Asia.



Understanding Section 2:

1. List two problems faced by the rulers of the Muslim lands.
2. Why were Arabs the first rulers of the Muslim state?
3. What were the first four Khalifahs called? Why?
4. How is the ruler chosen in a **dynasty**? How does that differ from the way the first four Khalifahs were chosen?
5. In what ways were the Umayyad and Abbassid Dynasties different from the early Khalifahs?
6. Which two groups of skilled soldiers from Central Asia accepted Islam and ruled over Muslim territories?
7. What was the name for the Mongol rulers in India?
8. What Muslim ruling group renamed Constantinople in 1458, and ruled until the 20th century?



The Spread of Knowledge

Spreading Islam meant teaching about the faith. The Qur'an forbids Muslims from forcing others to accept Islam. They must use reason, and try to be living examples like their prophet. The first step was to preserve and pass on knowledge about Islam. From that beginning, Muslims started a revolution in knowledge and science that changed the world.

PRESERVING KNOWLEDGE

The Qur'an is the most important source of knowledge about Islam. It was revealed over the 23 years of Muhammad's prophethood. Whenever new verses were revealed to Muhammad ﷺ, his companions memorized and wrote them down. Muslims recite Qur'an in their five daily prayers. Each year during the month of Ramadan, the companions recited the Qur'an from beginning to end. Muhammad ﷺ recited it and heard the companions recite it. By the time of Muhammad's death, hundreds of people knew the whole Qur'an by heart.

After his death, the Qur'an was carefully preserved. Muhammad's followers taught others to recite it in the same way they had heard it. The early Khalifahs had the complete Qur'an checked and collected into a book. Zaid Ibn Thabit was in charge of that job. He had learned the Qur'an directly from Prophet Muhammad ﷺ. Another problem came when Islam spread to non-Arab lands. Scholars improved the system of writing Arabic to prevent accidental changes in the Qur'an.



Those who knew how to write among Prophet Muhammad's companions, or sahabah, memorized and wrote down verses of the Qur'an as the Prophet recited them after revelation. Those who could not write memorized them only. The companions did the same with hadith, or sayings and deeds of the Prophet.

All Muslims learn to recite Qur'an in Arabic. People who speak other languages use translations to help them understand the meaning. Even today, the Qur'an is the same all over the world.

The second source of Islamic knowledge is Muhammad's example, the **Sunnah**. Sayings and deeds of Muhammad ﷺ, called **hadith**, were memorized while he was still alive. Later Muslims collected them into books. They recorded all the names of people who passed down the hadith from Muhammad's generation. Two of the most famous collectors were *Muslim* and *Bukhari*. Today, many libraries contain these and other collections.

MUSLIM SCHOLARS KEPT ISLAM STRONG

As the Islamic state became more powerful and worldly, many Muslims were dissatisfied. They did not like the way their rulers lived and governed. These Muslims did not give up Islam's high ideals. They worked to improve government. They sought ways to keep an Islamic spirit in the changing state.

Muslim scholars developed a system based on **'ilm** (knowledge). Study of Arabic grammar helped explain the Qur'an. They collected the history of Muhammad's life and community, called the **Sirah**. They checked and collected a record of Muhammad's deeds and sayings, the **Hadith**. They made careful rules for explaining the **Qur'an** and Muhammad's example, the **Sunnah**. They used these rules to discover how Muslims and their leaders should act.

The science of **fiqh** (understanding) developed from this information. **Fiqh** is a practical guide for personal and community behavior. Fiqh contains guidelines for a complete Muslim society.

From this knowledge, Islamic **Shari'ah** developed. Shari'ah is a system of law based on Qur'an and Sunnah. The Shari'ah contains principles of government, economics and justice. It has a system of social law. It guides relations between different countries and religious groups. The Shari'ah shows Muslim leaders how to keep an Islamic system of life as society changes over time.

The work of Muslim scholars set Islamic standards for governments and individuals. Their careful work united the Muslim community in basic agreement.



Muslim astronomers studied the stars from observatories like this one. These carefully placed platforms helped astronomers make accurate measurements of the movement of stars and planets. These astronomers developed mathematics and instruments that helped people pray towards Makkah, sail the seas on long journeys, measure the size of the earth and begin to understand our universe. Without their work, modern people may never have made it to the moon!

People could hold their leaders up to this high standard. Muslim governments could not ignore it.

Some rulers tried harder than others to meet this standard. Many Muslim governments have not applied the Shari'ah closely. Shari'ah law has been strongest in the courts that govern Muslims' everyday life. Today, Muslim scholars still work to meet modern needs using Islamic Shari'ah.

STUDY OF THE QUR'AN LED TO SCIENCE

In the last section, you read how studying the Qur'an led to Islamic **Shari'ah**. Studying the Qur'an also led to exploration of science.

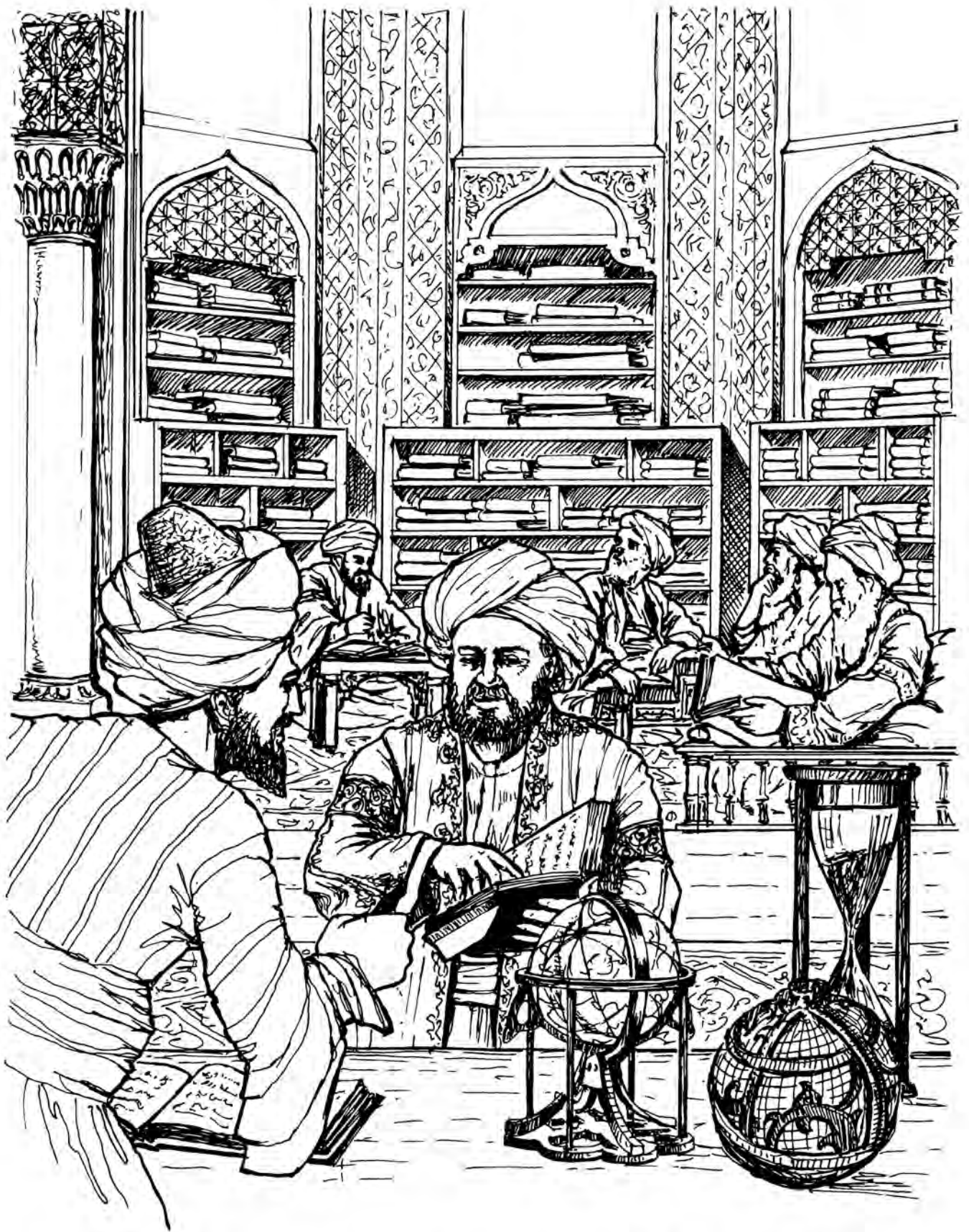
Muslim scholars studied the Qur'an as the key to knowledge. Many verses describe nature, the stars and planets, and changes in the earth. There are clues about medicine, biology and history. Muslim thinkers found new ideas in the Qur'an.

Muhammad ﷺ told Muslims to go even to China for knowledge. The Qur'an invites people to discover how the natural world works. The Qur'an tells that creation obeys Allah's laws. People can understand these laws by using the powers He gave them. In following centuries, Muslim scientists took up this challenge. They brought together knowledge from many cultures. Adding their own work, they passed this knowledge along to others.

SCHOLARS GATHER KNOWLEDGE FROM MANY CULTURES

When Islam spread to Byzantine and Persian lands, Muslims discovered knowledge from other civilizations. The Muslim lands had a rich history of Greek, Persian and Roman culture. As Islam moved toward India and China, Muslims picked up knowledge from those cultures. Libraries were preserved and not burned as they have been by many armies in history.

Scholars of other religions worked with Muslims as teachers and translators. Translating knowledge into Arabic began under the first four Khalifahs. It grew under the Abbassid rulers, and Islamic science flowered. Baghdad was a



Scholars in Muslim lands gathered knowledge from many civilizations. They read and translated ancient and newer books into Arabic. Men and women wrote about those subjects and developed new knowledge, science and literature. Libraries with thousands of books were places where scholars met to share ideas.

center of scholarship. The Khalifah founded the House of Wisdom in 830. It was a library, academy, museum and translation center all in one. Works of ancient Greek philosophers, mathematicians, doctors and engineers were translated there. Persian and Indian works on medicine and mathematics were added to the Arabic library.

MUSLIM SCHOLARS WROTE ON MANY SUBJECTS

Today scientists are specialists. It is hard to imagine how scientists in Abbassid times could know so many subjects. For example, the famous scholar Ibn Sina wrote books on philosophy, mathematics and astronomy. Ibn Sina's *Encyclopedia of Medicine* has step-by-step descriptions of diseases and cures. Hunayn is famous for his study of the eye. He also led the House of Wisdom, and was a scholar of Greek language. Many Muslim scholars were poets, too. Before automatic printing and recording, people used rhymes to help them remember facts.

Think of Muslim scholars whenever you count. They brought "Arabic numerals" 1-9 from India, and the idea of using zero as a number. Al-Khawarizmi invented Algebra. A scholar from Cairo, Ibn Haitham, solved many problems in optics. Later scientists used his measurements to make lenses for telescopes and microscopes. Muslim scholars tested Greek and Persian ideas on astronomy. They measured the earth and stars with instruments invented in the Khalifahs' royal observatories. Their work helped Muslim scholars to learn navigation and make accurate maps.

Medical doctors are the most famous Muslim scientists in the West. Ibn Sina, Al-Razi, Al-Zahrawi, Ibn-Rushd and many others wrote books used for centuries. European doctors also used them until modern times. They studied anatomy of humans and animals. Surgeons described their instruments, ways to mend broken bones and eye operations. Others wrote encyclopedias about medicines. Rich and poor patients were treated in clean hospitals that had pharmacies for mixing pills, ointments and syrups.

Muslim scholars wrote about agriculture. Farmers developed new and better crops. Muslims introduced many fruits and vegetables to Europe and other lands. Chemistry helped find new ways to mine silver and use other materials.



This scene shows a seaport on the Mediterranean. Muslim merchants traded with Christian, Jewish and other merchants. They loaded the ships with precious goods like spices, coffee, cloth and jewels. On the Mediterranean, the Indian Ocean and in other waters, Muslim traders sailed to many ports. Their work helped build cities and spread Islam. Traders also brought back learning, inventions and fashions from the lands they visited.

Architects used mathematics to build and decorate buildings. They designed dams and pumps to control water for farms and cities. Study of history also became important wherever Islam spread. Muslim scholars, both men and women, wrote about many subjects. Many of their books have been lost, and others are found only as translations. From time to time, modern scholars discover copies of their books.

HOW MUSLIM LEARNING SPREAD TO EUROPE

Learning from Baghdad spread throughout the Muslim lands. The art of making paper came from China in the 8th century. Books became cheaper. Educated people wanted many books, and scribes earned a good living in the cities. Merchants carried books and inventions among the lands they visited. Scholars traveled across Muslim lands to meet one another. During the pilgrimage, Muslims brought together ideas from all corners of the world.

Learning spilled over into other lands. Foreign soldiers and merchants noticed the high standard of living in Muslim cities. They brought back goods and ideas to their home countries. Italians were the first Europeans to set up trade with the Muslims. As a result of their contact, Italy was more advanced than the rest of Europe during the Middle Ages. Through Italy came ancient books and new inventions and ways of building. These ideas helped bring a new age to Europe. It is called the **Renaissance**, or rebirth.

Scholars from Christian Europe traveled to study at Muslim universities. Muslims, Christians and Jews lived side-by-side in Al-Andalus (Spain). Customs, fashions, foods and ideas flowed from Muslim Spain to Northern Europe. Translations from Arabic into Latin brought Muslim learning into Europe, often on the backs of donkeys over mountains. Many changes that led to the modern world started from contact with Muslim learning through Spain and Italy.



Understanding Section 3:

1. List the two most important sources of knowledge about Islam, in order.
2. List two ways Muslims preserved the *Qur'an* from changes.
3. Why did Muslim scholars work to set a standard for Islamic laws and practices? On what did they base the standard?
4. Does Islam forbid Muslims to study science? Give reasons for your answer.
5. How did knowledge from other civilizations help science to flower in Muslim lands? Name the civilizations that contributed their knowledge.
6. Write three sentences that describe important contributions of Muslim scientists.
7. List three ways in which knowledge spread from Muslim lands to Europe.



Journey of a Muslim Traveler

In 1325, a Moroccan scholar named Ibn Battuta left his native city of Fez with the pilgrim caravan. He was bound for Makkah, but he became one of the first world travelers. He returned home almost 30 years later. A look at places he visited gives an idea of life in Muslim lands long ago. It shows how Muslims built a civilization that united the Old World.

Traveling across North Africa, Ibn Battuta stopped in Alexandria. Two great harbors handled the Mediterranean traffic. He sailed up the Nile without baggage, since he could get what he needed in **bazaars** (or markets) along the way to Cairo. Cairo was already a huge city. Goods from all over the world filled the city. The skyline was jagged with minarets and domes, seen from the high Citadel where the rulers' palace stood. Ibn Battuta met with other scholars in the mosques and madrasas, which he said "were too many to count." The city's biggest caravansery (a motel for caravans) held 4000 guests. A large hospital provided free treatment to patients.

After visiting Jerusalem's Masjid Al-Aqsa, he caught the annual pilgrim caravan in Damascus. The city's rulers had built beautiful squares and fountains. In the great Umayyad Masjid, Ibn Battuta heard lectures by learned men. He received certificates for his studies.

Makkah was the most international city each year during the pilgrimage. It lay in a desert valley surrounded by bare walls of rock, but Makkah overflowed with fruit from everywhere. Pilgrims bought figs, grapes, lemons, apricots and nuts, as well as watermelons, eggplants and cucumbers. Pilgrims



Ibn Battuta was one of the first world travelers. He started from Fez, Morocco, on his way to make hajj to Makkah. He returned many years later, then set out again. He crossed parts of Asia, the Middle East and Africa by land and sea. At Granada, Spain, he told the story of his travels that we have in a book today.

also traded luxury goods. Muslims of many lands mixed in the streets leading down to the great Haram holding the Kaabah. They prayed side by side. Several times, Ibn Battuta spent a few months studying with scholars at Makkah.

Ibn Battuta went on to Persia and Iraq. He saw Baghdad nearly 100 years after the Mongol attack. It was no longer the Khalifah's capital, but it was still a busy place. In Baghdad, the Silk Road met trade routes from the Indian Ocean and the Persian Gulf. He visited the Persian city of Tabriz, which had the finest bazaar he had ever seen. Under a covered mall with natural air-conditioning, merchants sold goods from all over Europe and Asia.

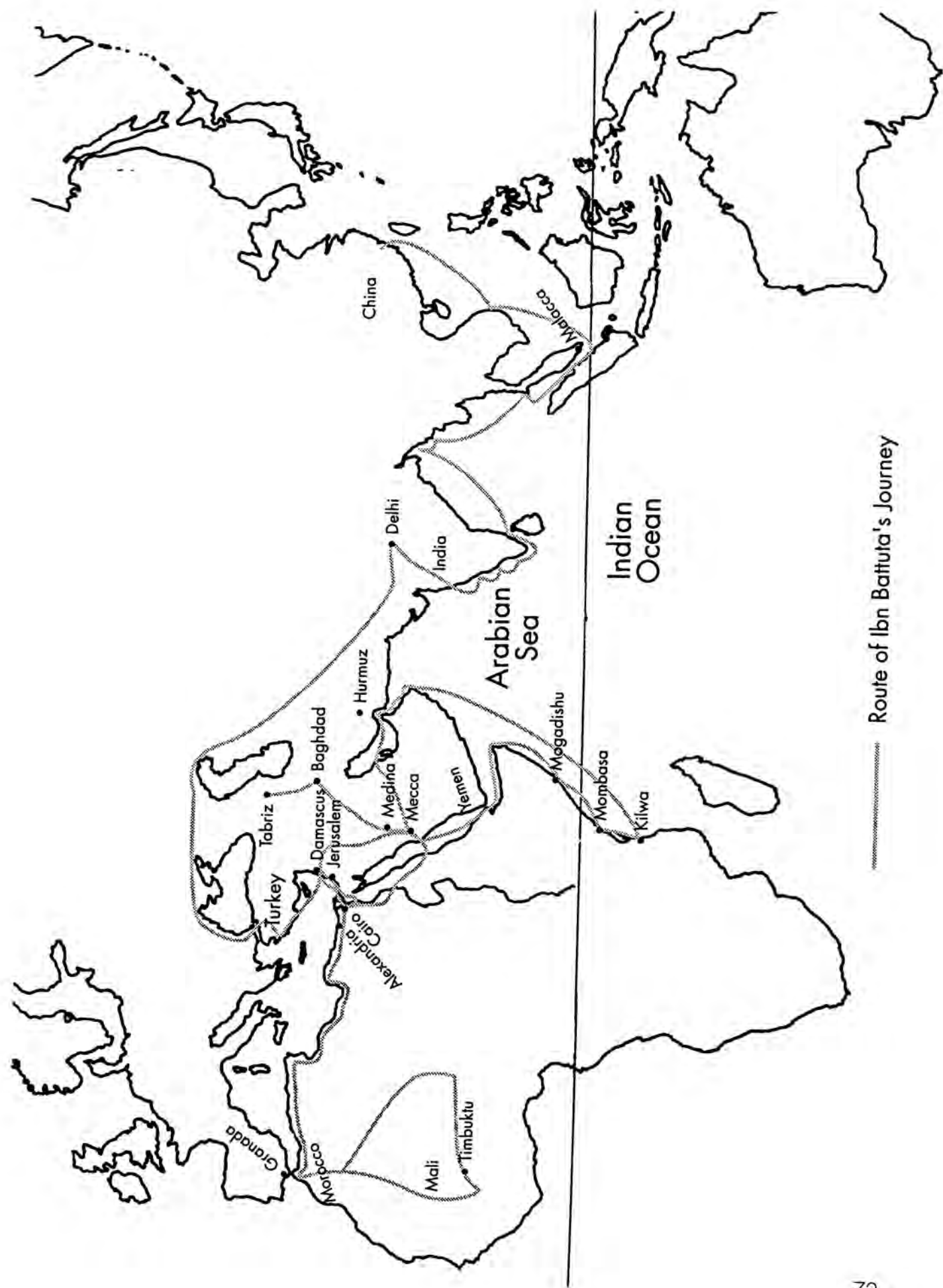
Returning to Makkah, he sailed from the Red Sea to Yemen. From there, he sailed down the East African coast. In Mogadishu and Mombassa's busy ports, his hosts were dark-skinned scholars and judges. African Muslim merchants traded ivory, rare woods and spices. He saw the stone castle at Kilwa, where African Muslim rulers controlled the gold trade.

Sailing with the **monsoon** (or seasonal wind), he reached port cities in the Persian Gulf. He saw merchants load pearls, jewels, spices and cloth from ships to camel caravans.

From Syria, he sailed in an Italian ship to Turkey. In the royal company of Mongol leader Uzbeg Khan, he rode ox-drawn wagons. Slowly, they moved across the Asian **steppe** (or grassland) to India. The Muslim Mongols protected these trade routes.

He crossed the Himalayan Mountains into the Ganges River valley. Finally, he arrived at Delhi, seat of the Mughal ruler. He was appointed judge and became wealthy. Then he lost his money and nearly his life in palace quarrels. The Sultan appointed him ambassador to China, and he set out again.

East coast ports of India handled Indian Ocean trade. Arabs sailed in swift, triangular-sailed ships. They sailed out and returned with the **monsoons**. They navigated by the stars with **astrolabes**. They used the magnetic **compass**, which they brought to Europe. Ibn Battuta sailed in a five-decked Chinese ship whose captain was Arab.



Route of Ibn Battuta's Journey

Malacca is a strait where ships enter the China Sea. Even so far from home, Ibn Battuta met other Muslim scholars and religious men. They greeted and spoke in Arabic. They prayed and studied in Arabic. Islam was just then coming to the Spice Islands, welcomed with the trade. It is not known if he reached China or Japan, but other Muslims often did.

After 21 years, he returned home to Morocco. His next stop was the West African land of Mali. This part of Africa supplied about two-thirds of the world's gold. At the end of the Saharan caravan routes, he found the city of Timbuktu, where Islamic learning was honored. Graceful mosques and palaces were built of mud bricks.

Home again, he left for Muslim Spain, where he stayed in the famous Alhambra palace. It still stands today. There Ibn Battuta met the man who helped him write the story of his travels, called the *Rihlah*.



Understanding Section 4:

There are many clues in the *Rihlah* about life during Ibn Battuta's time. See if you can find **evidence** in the story that shows whether the following statements are true or false. **Write T or F, and then list clues from the story that support your answer.**

- _____ 1. Citizens of Cairo and other large Muslim cities enjoyed a high standard of living.
- _____ 2. Many centuries after the death of Muhammad, Makkah had become a quiet desert town.
- _____ 3. Although there were no airplanes or automobiles in those days, many people traveled with ease over long distances.
- _____ 4. African countries were very poor at the time when Ibn Battuta visited them.
- _____ 5. Bazaars in Ibn Battuta's time were like shopping malls of today.



nomads = tribesmen who live by moving constantly with their grazing animals

oasis, oases = fertile, watered spots in the desert

idols = statues made for worship

pilgrimage = visit to a holy place (in this case, to the Kaabah at Makkah)

pilgrims = people on a pilgrimage

persecute, persecution = to keep people from practicing their faith

diverse = differing or varied

authority = strong and respected leadership

Renaissance = rebirth of learning and culture in Europe

bazaars = covered markets with many shops

steppe = grassland in Central Asia

monsoon = seasonal winds

astrolabe = tool for navigation by the stars

Words About Islam

Allah = name of the One God in Arabic

Islam = religion of belief in Allah and the prophethood of Muhammad
(it means "submission" to God's will)

Muslim = believers in Islam (not "Muhammadan")

Qur'an = the holy book of Islam

sunnah = Muhammad's example or way of life

hadith = sayings and deeds of Muhammad

surah = chapter of the Qur'an

hijra = the migration of Muslims from Makkah to Medina

masjid = mosque, or Muslim house of prayer and study

hajj = pilgrimage to the Ka'aba at Makkah

Some Other Arabic Words

Muhajirun = the Migrants from Makkah

Ansar = the Helpers, or Muslims of Medina

jihad = an effort, defending the religion

khalifah = successor to Muhammad's leadership of the Muslims

ilm = knowledge

fiqh = practical guide to Islamic behavior and law

sirah = the history of Muhammad's ﷺ life and community

shari'ah = Islamic law

madrasas = schools or colleges

fitnah = a time of dispute