Key Concept 3.1. Expansion and Intensification of Communication and Exchange Networks

Although Afro–Eurasia and the Americas remained separate from one another, this era witnessed a deepening and widening of networks of human interaction within and across regions. The results were unprecedented concentrations of wealth and the intensification of cross-cultural exchanges. Innovations in transportation, state policies, and mercantile practices contributed to the expansion and development of commercial networks, which in turn served as conduits for cultural, technological, and biological diffusion within and between various societies. Pastoral or nomadic groups played a key role in creating and sustaining these networks. Expanding networks fostered greater interregional exchanges while at the same time sustaining regional diversity. Islam, a new monotheistic religion, spread quickly through practices of trade, warfare, and the diffusion that was characteristic of this period. A deepening and widening of networks of human interaction within and across regions contributed to cultural, technological, and biological diffusion within and between various societies.

I. Improved transportation technologies and commercial practices led to an increased volume of trade and expanded the geographical range of existing and newly active trade networks.

A. Existing trade routes - including the Silk Roads, the Mediterranean Sea, the Trans-Saharan, and the Indian Ocean basin - flourished and promoted the growth of powerful new trading cities.

ILLUSTRATIVE EXAMPLES, NEW TRADING CITIES:
- Novgorod
- Timbuktu
- Swahili city-states
- Hangzhou
- Calicut
- Baghdad
- Melaka
- Venice
- Tenochtitlan
- Cahokia

B. Communication and exchange networks developed in the Americas.

ILLUSTRATIVE EXAMPLES, NEW TRADING CITIES:
- Mississippi River Valley
- Mesoamerica
- Andes

C. The growth of interregional trade in luxury goods was encouraged by significant innovations in previously existing transportation and commercial technologies— including the caravanserai, compass use, the astrolabe, and larger ship designs in sea travel—and new forms of credit and the development of money economies.

ILLUSTRATIVE EXAMPLES, NEW FORMS OF CREDIT AND MONEY ECONOMIES:
- Bills of exchange
- Credit
- Checks
- Banking houses
- Use of paper money
D. Commercial growth was also facilitated by state practices, including the Inca road system; trading organizations, such as the Hanseatic League; and state-sponsored commercial infrastructures, such as the Grand Canal in China.

E. The expansion of empires—including China, the Byzantine Empire, various Muslim states, and the Mongols—facilitated Afro–Eurasian trade and communication as new people were drawn into their conquerors’ economies and trade networks.

II. The movement of peoples caused environmental and linguistic effects.

A. The expansion and intensification of long-distance trade routes often depended on environmental knowledge and technological adaptations to it.

ILLUSTRATIVE EXAMPLES, ENVIRONMENTAL KNOWLEDGE AND TECHNOLOGICAL ADAPTATIONS:

- The way Scandinavian Vikings used their long ships to travel in coastal and open waters as well as in rivers and estuaries
- The way the Arabs and Berbers adapted camels to travel across and around the Sahara
- The way Central Asian pastoral groups used horses to travel in the steppes

B. Some migrations had a significant environmental impact, including migration of Bantu-speaking peoples who facilitated transmission of iron technologies and agricultural techniques in Sub-Saharan Africa, as well as the maritime migrations of the Polynesian peoples who cultivated transplanted foods and domesticated animals as they moved to new islands.

C. Some migrations and commercial contacts led to the diffusion of languages throughout a new region or the emergence of new languages.

ILLUSTRATIVE EXAMPLES, DIFFUSION OF LANGUAGES:

- The spread of Bantu languages
- The spread of Turkic and Arabic languages

III. Cross-cultural exchanges were fostered by the intensification of existing, or the creation of new, networks of trade and communication.

A. Islam, based on the revelations of the prophet Muhammad, developed in the Arabian Peninsula. The beliefs and practices of Islam reflected interactions among Jews, Christians, and Zoroastrians with the local Arabian peoples. Muslim rule expanded to many parts of Afro–Eurasia due to military expansion, and Islam subsequently expanded through the activities of merchants, missionaries, and Sufis.

B. In key places along important trade routes, merchants set up diasporic communities where they introduced their own cultural traditions into the indigenous culture.

ILLUSTRATIVE EXAMPLES, DIASPORIC COMMUNITIES:

- Muslim merchant communities in the Indian Ocean region
- Chinese merchant communities in Southeast Asia
- Sogdian merchant communities throughout Central Asia
- Jewish communities in the Mediterranean, Indian Ocean basin, or along the Silk Roads

C. As exchange networks intensified, an increased number of travelers within Afro-Eurasia wrote about their travels. Their writings illustrate both the extent and the limitations of intercultural knowledge and understanding.

ILLUSTRATIVE EXAMPLES, TRAVELERS:

- Ibn Battuta
- Marco Polo
- Xuanzang

D. Increased cross-cultural interactions resulted in the diffusion of literary, artistic, and cultural traditions, as well as scientific and technological innovations.

ILLUSTRATIVE EXAMPLES, DIFFUSION OF LITERARY, ARTISTIC, AND CULTURAL TRADITIONS:
• The spread of Christianity throughout Europe
• The influence of Neoclassicism and Buddhism in East Asia
• The spread of Hinduism and Buddhism into Southeast Asia
• The spread of Islam in Sub-Saharan Africa and Asia
• The influence of Toltec/Mexica and Inca traditions in Mesoamerica and Andean America

ILLUSTRATIVE EXAMPLES, DIFFUSION OF SCIENTIFIC AND TECHNOLOGICAL INNOVATIONS:
• The influence of Greek and Indian mathematics on Muslim scholars
• The return of Greek science and philosophy to western Europe via Muslim al-Andalus in Iberia
• The spread of printing and gunpowder technologies from East Asia into the Islamic empires and western Europe

IV. There was continued diffusion of crops and pathogens, including epidemic diseases like the bubonic plague, along trade routes.

ILLUSTRATIVE EXAMPLES, DIFFUSION OF CROPS:
• Bananas in Africa
• New rice varieties in East Asia
• The spread of cotton, sugar, and citrus

• Key Concept 3.2. Continuity and Innovation of State Forms and Their Interactions
State formation in this era demonstrated remarkable continuity, innovation, and diversity in various regions. In Afro–Eurasia, some states attempted, with differing degrees of success, to preserve or revive imperial structures, while smaller, less centralized states continued to develop. The expansion of Islam introduced a new concept—the caliphate—to Afro–Eurasian statecraft. Pastoral peoples in Eurasia built powerful and distinctive empires that integrated people and institutions from both the pastoral and agrarian worlds. In the Americas, powerful states developed in both Mesoamerica and the Andean region. State formation and development demonstrated continuity, innovation, and diversity in various regions.

I. Empires collapsed in different regions of the world, and in some areas were replaced by new imperial states or political systems.

A. Following the collapses of empires, imperial states were reconstituted in some regions, including the Byzantine Empire and the Chinese dynasties (Sui, Tang, and Song), combining traditional sources of power and legitimacy with innovations better suited to their specific local context.

ILLUSTRATIVE EXAMPLES, TRADITIONAL SOURCES OF POWER AND LEGITIMACY:
• Patriarchy
• Religion
• Land-owning elites

ILLUSTRATIVE EXAMPLES, INNOVATIONS:
• New methods of taxation
• Tributary systems
• Adaptation of religions institutions

B. In some places, new political entities emerged, including those in various Islamic states; the Mongol khanates; new Hindu and Buddhist states in South, East, and Southeast Asia; city-states; and decentralized government (feudalism) in Europe and Japan.

ILLUSTRATIVE EXAMPLES, ISLAMIC STATES:
• Abbasids
• Muslim Iberia
• Delhi Sultanates
ILLUSTRATIVE EXAMPLES, CITY-STATES:
• In the Italian peninsula
• In East Africa
• In Southeast Asia
• In the Americas
C. Some states synthesized local and foreign traditions.

ILLUSTRATIVE EXAMPLES, SYNTHESIS BY STATES:
• Persian traditions that influence Islamic states
• Chinese traditions that influence states in Japan

D. In the Americas, as in Afro-Eurasia, state systems expanded in scope and reach; networks of city-states flourished in the Maya region and, at the end of this period, imperial systems were created by the Mexica (Aztecs) and Inca.

II. Interregional contacts and conflicts between states and empires encouraged significant technological and cultural transfers.

A. Technological and cultural transfers were taking place: between Tang China and the Abbasids; across the Mongol Empire; between Muslims and Christians in the Mediterranean region during the Crusades; and during Chinese maritime activity led by Ming Admiral Zheng He.

ILLUSTRATIVE EXAMPLES, TECHNOLOGICAL AND CULTURAL TRANSFERS:
• The spread of Islamic scientific knowledge to Mongol China
• The transfer of Greco-Islamic medical knowledge to Western Europe
• The transfer of foods, technologies, textiles, and music from the Islamic world to Europe via Al-Andalus.

• Key Concept 3.3. Increased Economic Productive Capacity and Its Consequences
Changes in trade networks resulted from and stimulated increasing productive capacity, with important implications for social and gender structures and environmental processes. Productivity rose in both agriculture and industry. Rising productivity supported population growth and urbanization but also strained environmental resources and at times caused dramatic demographic swings. Shifts in production and the increased volume of trade also stimulated new labor practices, including adaptation of existing patterns of free and coerced labor. Social and gender structures evolved in response to these changes. Changes in trade networks resulted from and stimulated increasing productive capacity, with important implications for social and gender structures and environmental Processes.

I. Innovations stimulated agricultural and industrial production in many regions.

A. Agricultural production increased significantly due to technological innovations.

ILLUSTRATIVE EXAMPLES, TECHNOLOGICAL INNOVATIONS:
• The chinampa field systems
• Waru waru agricultural techniques in the Andean areas
• Improved terracing techniques
• The horse collar
• Three field rotation
• Swamp draining

B. Demand for luxury goods increased in Afro–Eurasia. Chinese, Persian, and Indian artisans and merchants expanded their production of textiles and porcelains for export; industrial production of iron and steel expanded in China.
II. The fate of cities varied greatly, with periods of significant decline and periods of increased urbanization buoyed by rising productivity and expanding trade networks.

A. Multiple factors contributed to the decline of urban areas in this period, including invasions, disease, and the decline of agricultural productivity. 

B. Multiple factors contributed to urban revival, including the end of invasions, the availability of safe and reliable transport, the rise of commerce and warmer temperatures between 800 and 1300, increased agricultural productivity and subsequent rising population, and greater availability of labor.

III. Despite significant continuities in social structures and in methods of production, there were also some important changes in labor management and in the effect of religious conversion on gender relations and family life.

A. The diversification of labor organization that began with settled agriculture continued in this period. Forms of labor organization included free peasant agriculture, nomadic pastoralism, craft production and guild organization, various forms of coerced and unfree labor, government-imposed labor taxes, and military obligations. 

B. As in the previous period, social structures were shaped largely by class and caste hierarchies. Patriarchy persisted; however, in some areas, women exercised more power and influence, most notably among the Mongols and in West Africa, Japan, and Southeast Asia.

C. New forms of coerced labor appeared, including serfdom in Europe and Japan and the elaboration of the mit’a in the Inca Empire. Free peasants resisted attempts to raise dues and taxes by staging revolts. The demand for slaves for both military and domestic purposes increased, particularly in central Eurasia, parts of Africa, and the eastern Mediterranean.

ILLUSTRATIVE EXAMPLES, REGIONS WHERE FREE PEASANTS REVOLTED:
• China
• Byzantine Empire

D. Buddhism, Christianity, Islam, and Neoconfucianism were adopted in new regions and often caused significant changes in gender relations and family structure.

ILLUSTRATIVE EXAMPLES, CHANGES IN GENDER RELATIONS AND FAMILY STRUCTURE:
• Divorce for both men and women in some Muslim states
• The practice of foot binding in Song China
• Female monastic orders in Christianity and Buddhism