



UNIT 2

TECHNOLOGICAL AND ENVIRONMENTAL TRANSFORMATIONS (600 B.C.E.-600 C.E.)

Short Cut

Unit 2 Short Cut

GENERAL REMARKS

The period between 600 B.C.E. and 600 C.E. was a time of increased political consolidation, technological aptitude, and social and cultural sophistication. World population continued to rise, and **networks of transregional communication and exchange** widened. Humankind's ability to affect its environment, and often strain it, steadily grew.

Although less advanced societies continued to be found in all parts of the globe, this era saw in many places the emergence of the most powerful and most highly **centralized states and empires** seen to that date. Thanks to effective **bureaucracies** and improved communications, these states were capable of governing large and diverse populations. They regulated systems of **trade**, tax collection, **resource mobilization**, and food supply over great distances. **Cities** played a larger role than ever as venues for political leadership, economic activity, and cultural and artistic dynamism. **Law codes** helped society function less arbitrarily. Increasingly **organized religions**, along with **shared artistic and cultural traditions**, fostered social cohesion and a stronger sense of identity.

In certain parts of the world, the civilizations of this era have come to be thought of as **classical**, in that after they faded, they left behind key cultural, intellectual, and linguistic legacies and golden-age memories of political unity and socioeconomic stability.

Not that instability was a thing of the past. Even the most powerful states broke apart due to **overreach**. As this unit will show, there were many ways to overextend oneself, whether politically, militarily, or economically. Most empires and large states, as they declined and fell, experienced at least one problem associated with overreach, and generally some combination of them. Large-scale **migrations** continued to redistribute the world's population over vast distances, and **war** remained a constant reality.

BROAD TRENDS

| Humans and the Environment | |
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| Europe and the Mediterranean | environmental impact of city building and intensive agriculture (deforestation, desertification, soil erosion, silted rivers) appearance of smallpox and bubonic plague aqueducts and water wheels |
| Middle East | environmental impact of city building and intensive agriculture appearance of smallpox and bubonic plague qanats and water wheels |
| Africa | environmental impact of city building and intensive agriculture Bantu migration continues |
| East (and Central) Asia | environmental impact of city building and intensive agriculture appearance of smallpox and bubonic plague |
| South (and Southeast) Asia and Oceania | environmental impact of city building and intensive agriculture appearance of smallpox and bubonic plague Polynesian migrations continue |
| Americas | environmental impact of city building and intensive agriculture hillside terracing “floating islands” |

Humans and the Environment

- Societies and ecosystems in the Americas remained isolated from those in Afro-Eurasia.
- The Bantu migrations through sub-Saharan Africa continued from the pre-600 B.C.E. era into this one.
- The migratory voyages of the Polynesians throughout the Pacific, which may have begun around 1000 or 900 B.C.E., increased in scope.
- Eurasia was swept by a centuries-long wave of migration, consisting of Asiatic and Germanic peoples moving east to west, starting shortly after 1 C.E. and lasting until around 1000 C.E.
- City building and construction skills allowed a growing number of societies to affect their environment in major ways. Monumental architecture, water management (including irrigation, reservoirs, and canal building), the expansion of farming, and other practices made humanity’s “ecological footprint” heavier than before.
- Along with pollution, especially important forms of environmental damage included soil erosion, the silting of rivers, desertification, and deforestation.
- Innovations in overland and maritime transport permitted easier and wider travel.
- Diseases and new foods spread more quickly and more widely than before. Some historians argue that this was the case more in Eurasia than in the Americas or Africa because east–west movement (along the same latitude and thus within similar climate zones) was easier there.
- Epidemic diseases, including smallpox, measles, and bubonic plague, played noteworthy roles in the decline of the Roman Empire and China’s Han dynasty.

| Development and Interaction of Cultures (Including Technology) | |
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| Europe and the Mediterranean | <p>Greco-Roman philosophy, science, and empiricism (600s–200s B.C.E.) (Christianity)</p> <p>Greek drama</p> <p>Greek and Latin as classical languages</p> <p>architecture (columns, domes, Parthenon, Pantheon)</p> <p>wheeled vehicles + saddles and pack animals (horses, oxen)</p> |
| Middle East | <p>formalization of Judaism (ca. 400s B.C.E.; <i>Tanakh</i> and <i>Torah</i>)</p> <p>Zoroastrianism</p> <p>Christianity (Jesus of Nazareth; ca. 30 C.E.)</p> <p>architecture (Hanging Gardens of Babylon, Great Library of Alexandria)</p> <p>dhow and lateen sail</p> <p>wheeled vehicles + saddles and pack animals (horses, oxen, camels)</p> |
| Africa | <p>ancestor veneration</p> <p>dhow and lateen sail (monsoon winds)</p> <p>saddles and pack animals (camels)</p> |
| East (and Central) Asia | <p>ancestor veneration</p> <p>Confucianism and Neo-Confucianism (Confucius; 500s B.C.E.; <i>Analects</i>)</p> <p>Daoism (Laozi; 500s B.C.E.; <i>Tao-te Ching</i>)</p> <p>Buddhism (arrives in China prior to 100 C.E.)</p> <p>Mandarin Chinese as classical language</p> <p>paper + woodblock printing</p> <p>architecture (Great Wall of China, grid layout of cities, pagodas)</p> <p>horse collar + stirrup</p> <p>wheeled vehicles + saddles and pack animals (horses, oxen, camels)</p> <p>Chinese junk</p> |
| South (and Southeast) Asia and Oceania | <p>emergence of Hinduism from Vedism (700s B.C.E.; <i>Upanishads</i>)</p> <p>Buddhism (Siddhartha Gautama; 500s B.C.E.)</p> <p>Indian epics</p> <p>Sanskrit as classical language</p> <p>“Arabic” numerals, pi, and zero</p> <p>wheeled vehicles + saddles and pack animals (horses and oxen)</p> <p>dhow and lateen sail (monsoon winds)</p> |
| Americas | <p>polytheism (human sacrifice)</p> <p>ancestor veneration</p> <p>Mayan hieroglyphs and calendar (concept of zero)</p> <p>quipu</p> <p>architecture (pyramids)</p> <p>saddles and pack animals (llamas)</p> |

Development and Interaction of Cultures

- Existing religions, such as Judaism and Vedism, underwent reform and further codification.
- Major belief systems arising during this time were Hinduism, Buddhism, Confucianism, Daoism, and Christianity.
- Successful religions spread widely across regions and cultures due to trade and missionary activity.

- In some cases, people adopted a new religion but retained some of their older beliefs. The mixing of elements from more than one religion is called syncretism. Examples include the interplay of Buddhism, Confucianism, and Daoism in China and neighboring areas; the persistence of pagan folklore and ritual in newly Christianized parts of Europe; and the Hellenistic blending of Greek imagery with Buddhist art in parts of Asia conquered by Alexander the Great.
- Certain languages, such as Sanskrit, Mandarin Chinese, and Latin became transregionally influential because they were sacred to major religions or the official tongues of large and enduring empires.
- Literature and art were produced on a greater scale, often by clearly identifiable authors and artists. Examples include Chinese poetry, the dramas produced by Greek playwrights, and Indian epics such as the Mahabharata.
- True paper appeared in China, as did woodblock printing, during the 200s C.E. Both allowed for the faster and wider dissemination of information.
- Distinct architectural styles arose in different regions of the world.
- Philosophy, or the systemization of rational thought, emerged in many regions. Especially in the Greco-Roman world, logic and empirical observation gained prominence, laying the groundwork for a more scientific worldview.
- Key technologies of the era improved maritime transport (lateen sails and boats such as junks and dhows) and increased the efficiency with which pack animals were domesticated (yokes, saddles, and stirrups).

| State Building, Expansion, and Conflict | |
|---|---|
| Europe and the Mediterranean | Phoenicia (800s–200s B.C.E.) Greece (1100s–300s B.C.E.) Hellenistic empire (Alexander the Great; 300s B.C.E.) Roman Republic and Roman Empire (ca. 800 B.C.E.–476 C.E.) frontier nomads (Asiatic and Germanic barbarians) bureaucracy (proconsuls) monarchies and oligarchies republic + democracy |
| Middle East | Phoenicia (800s–200s B.C.E.) Persia (Darius the Great; 500s B.C.E.–600s C.E.) Hellenistic empire Rome bureaucracy (satraps) monarchies |
| Africa | (Hellenistic empire) Ghana (300s C.E.?) |
| East (and Central) Asia | Qin China (Shi Huangdi; 200s B.C.E.) Han China (200s B.C.E.–200s C.E.; mandate of heaven) frontier nomads (Xiongnu) bureaucracy (civil-service examinations) China's tributary system |

| State Building, Expansion, and Conflict | |
|---|--|
| South (and Southeast) Asia and Oceania | Mauryan Empire (300s–100s B.C.E.; Ashoka) Gupta Empire (300s–500s C.E.) frontier nomads (White Huns) bureaucracy (agricultural tax) |
| Americas | Teotihuacan (100s B.C.E.–750 C.E.) the Maya (250–900 C.E.) Moche (200–700 C.E.) |

State Building, Expansion, and Conflict

- Most states were still governed by monarchies and oligarchies.
- The expansion of states into empires by means of conquest remained common.
- A few civilizations developed representative forms of government, such as republics and democracies, but these were rare.
- Cities became increasingly important as centers of government and bureaucratic administration.
- Law codes formalized and increased in number. They were not always fair by today's standards, but they boosted political and social stability.
- Many states grew adept at centralizing authority, expanding bureaucracies, and projecting political and military power. Techniques for the latter included diplomacy, the construction of forts and city walls, the maintenance of roads and supply lines, and the effective recruitment of soldiers and officers (both from one's own population and from conquered peoples).
- Armies grew larger, more skilled, and better organized. They equipped themselves with better technology.
- Many of this era's states and empires overextended themselves politically, economically, territorially (becoming victims of their own success), or environmentally. They tended to collapse as a result of this overreach.

| Economic Systems | |
|-------------------------------------|---|
| Europe and the Mediterranean | Mediterranean trade network standard currencies, weights, and measures slavery and corvée intensive agriculture (wheat) |
| Middle East | Mediterranean trade network Silk Road trans-Saharan caravan routes standard currencies, weights, and measures slavery and corvée intensive agriculture (wheat) |
| Africa | trans-Saharan caravan routes Indian Ocean trade network (Mediterranean trade network) slavery |

| Economic Systems | |
|--|--|
| East (and Central) Asia | Silk Road Indian Ocean trade network standard currencies, weights, and measures slavery and corvée intensive agriculture |
| South (and Southeast) Asia and Oceania | Indian Ocean trade network standard currencies, weights, and measures slavery and corvée intensive agriculture (rice) |
| Americas | mit'a labor obligation intensive agriculture (corn, potatoes) |

Economic Systems

- Transregional trade was practiced on a larger scale and over greater distances than before. This change stemmed from innovations in overland and maritime transport.
- Major trade networks of the era included the Mediterranean Sea, the Indian Ocean basin, trans-Saharan caravan routes, and Eurasia's Silk Roads.
- Mobilizing resources and ensuring a steady supply of food became chief state priorities.
- Infrastructure—which included markets, roads, harbors, and other facilities built and maintained by states—supported local, regional, and transregional trade.
- Cities became increasingly important as centers of trade.
- Tax collection and the gathering of rents became more efficient and intrusive.
- Currency came to be used in a growing number of regions, greatly facilitating trade.

| Social Structures | |
|--|---|
| Europe and the Mediterranean | cities (Athens, Rome, Constantinople) class diversification patriarchalism (paterfamilias) plebeians vs. patricians |
| Middle East | cities (Alexandria, Persepolis, Constantinople) class diversification caste system (Persian) patriarchalism diaspora community (Jews) |
| Africa | cities (Carthage, East African ports, Alexandria) patriarchalism (with a handful of matrilineal societies) |
| East (and Central) Asia | cities (Chang'an) class diversification patriarchalism (especially encouraged by Confucianism) |
| South (and Southeast) Asia and Oceania | cities (Pataliputra) caste system (Law of Manu) patriarchalism (sati ritual) diaspora communities (minorities in Indian Ocean trade network) |
| Americas | cities (Teotihuacan) ayllu clans |

Social Structures

- Social structures in centralized states grew more complex. A wider array of social classes appeared, including peasants, laborers, artisans, merchants, clergy, and slaves. Elite and ruling classes remained small and generally hereditary.
- Cities grew in size, quantity, and importance and contributed to the diversification of social classes. Major cities included Alexandria, Athens, Carthage, Chang'an, Constantinople, Pataliputra, Persepolis, Rome, and Teotihuacan.
- Most societies were highly hierarchical, with some going so far as to form rigid caste systems.
- Patriarchalism continued to be the norm, with women still generally occupying a secondary status and remaining on the disadvantaged side of the gender division of labor.
- Shared religious, cultural, and linguistic traditions tended to make societies more stable. Diversity and the presence of religious, ethnic, or linguistic minorities could enrich societies, but also presented states and empires with political and organizational challenges. Certain states took an inclusive approach to minority populations, others proved harshly assimilationist or even discriminatory.
- Diaspora communities formed in many places, as refugees, migrants, and traders from one society made new homes far from their points of origin.
- Systems of coerced labor were common to the point of being almost universal. They included slavery, corvée labor, and serfdom.

QUESTIONS AND COMPARISONS TO CONSIDER

- In what ways did the larger and more centralized states of this era affect their physical environments? In what ways were they affected by their environments?
- What role did disease play in the history of this period? What about the exchange of new crops and foodstuffs?
- Compare the effects of large-scale migration during this period. Consider the movement of nomads into the territory of more settled civilizations. Or the formation of diaspora communities.
- What roles did religion play in building societies and shaping ethics. In legitimating political regimes or shaping social norms and gender relations? What universal truths did they assert?
- What was religious syncretism? How and where did it manifest itself?
- Consider the causes and consequences of transregional communication and exchange. What new technologies and techniques enabled the freer movement of people over greater distances? What happened when different regions came into more frequent contact with each other?
- How did the major states and empires of this era organize themselves? What state-building techniques did they use to mobilize resources and maintain political authority?
- How and why did this era's major states and empires decline and collapse? Good comparisons might include Han China and the Roman Empire, or Persia and India. To what degree, and in what forms, did overreach play a role in the fall of states and empires?

- Compare and contrast the major trade routes of the era, focusing on the Mediterranean, the Indian Ocean, trans-Saharan caravan routes, and the Silk Road.
- How did agricultural practice change and expand during these years? How did various societies guarantee the adequate production of food?
- How did the role of women change from the preceding era? How did women's experiences vary from society to society during this era? To what degree did this depend on one's social class?
- How were social hierarchies created and reinforced during these years?

QUESTIONS AND COMPARISONS TO CONSIDER