

SECOND EDITION

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WORLD REGIONAL GEOGRAPHY

THE NEW GLOBAL ORDER

MICHAEL BRADSHAW



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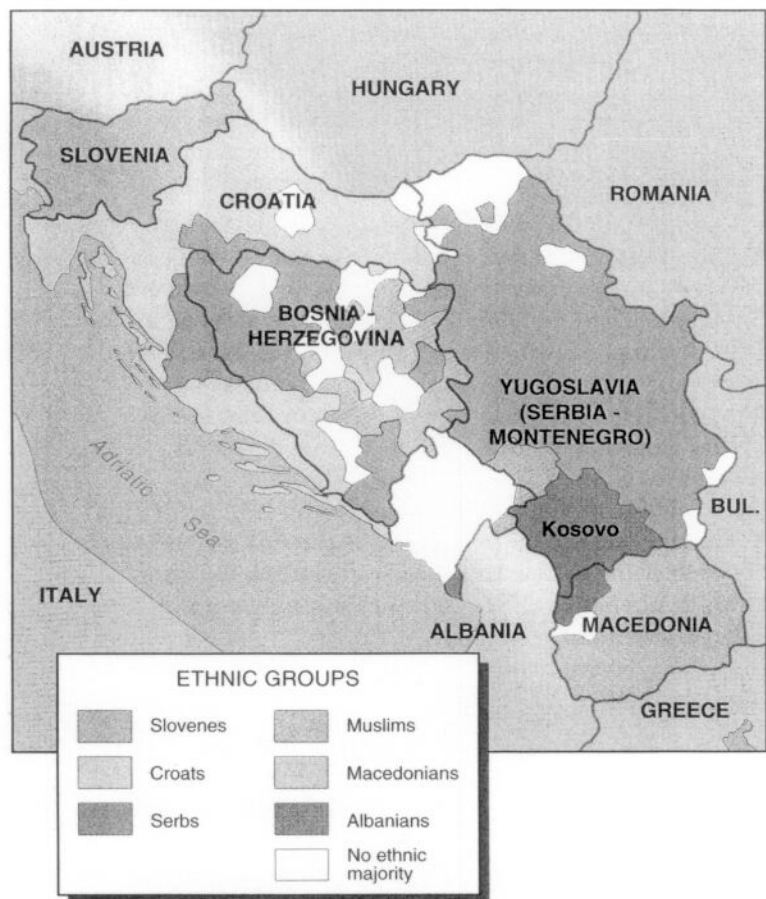


FIGURE 1.9 Importance of cultural differences. The former country of Yugoslavia in the Balkans of Europe. After 1991, Yugoslavia broke into five independent countries, although Serbia-Montenegro continues to call itself "Yugoslavia." Slovenia, Croatia, Bosnia, and Macedonia maintain their independence with difficulty, and the Albanian southern part of Serbia (Kosovo) became an area of civil conflict in the late 1990s. The colors show areas where particular ethnic groups comprise over 50 percent of the population. Which country has the greatest potential for ethnic conflict?

- **Regions are used by those in power.** Regional characteristics are not always the outcome of the chance interactions among peoples or of the influence of environmental, economic, or social processes. Regional character often reflects the deliberate actions of powerful governments. Regions were manipulated to change people's lives in the former Soviet Union, where rural areas were industrialized on a major scale, even north of the Arctic Circle. Groups of people were also moved from their traditional homes to other parts of the country for state security reasons. In other countries, attempts to modernize regions that lag behind in economic development may destroy local characteristics of culture and discourage local enterprise. In the United States, federal government attempts to develop the economically lagging region of Appalachia were criticized because the modernization introduced was accompanied by the decline of distinctive local cultures (see Chapter 9).

Political power is also exercised against foreign countries. Despite the ending of the era when major powers held territory as colonies, the strategic interests of powerful countries—as defined by the countries themselves—maintain strong influences in some parts of the world. This was particularly noticeable during the Cold War from 1950 to 1990, but it still exists. The

United States, for example, views the oil-producing Persian Gulf countries as important to its own economic well-being as major suppliers of energy. It went to war without hesitation in 1991 to free the oil-producing country of Kuwait after Iraq's invasion. It long resisted, however, involvement to stem the advances of invading Serbs in the Muslim and Croat sectors of Bosnia.

Some regions have continuing strategic roles because of their positions at narrow thoroughways on ocean trade routes that may be termed **global choke points**: examples include the Suez and Panama Canals, Strait of Hormuz (entrance to the Persian Gulf), Dardenelles and Bosphorus (entrance to the Black Sea in Turkey), and Strait of Malacca (near Singapore). Such strategic places are of importance to core countries for maintaining access to their markets and raw material sources. They provide bargaining points for the countries in which they are situated.

MAJOR WORLD REGIONS

Dynamic regional geography provides a strong basis for understanding the regional differences and changing circumstances within the global order. Such regional geography highlights inequalities among regions and evaluates attempts

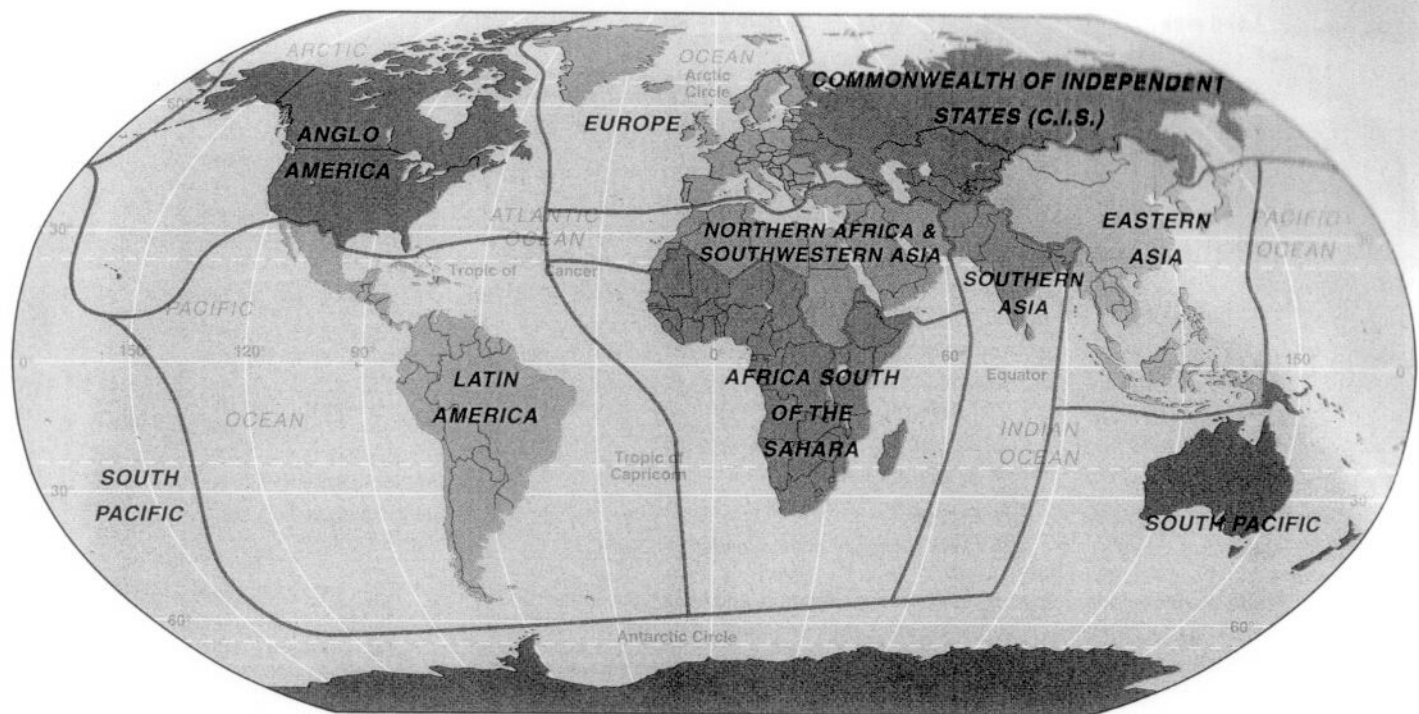


FIGURE 1.10 Major world regions based mainly on cultural characteristics. These regions form the subjects of Chapters 3 through 11. World maps in Chapter 2 are divided on this basis so that comparisons may be made.

to reduce them. It provides opportunities for assessing the potential impacts on places of the changing global political order, the expanding world economic system, the trends that may reduce cultural variety, and the pressures on the environment.

In this text, the globe is divided into nine major world regions and a chapter is devoted to each. Countries that have many features in common are grouped into regions (Figure 1.10) and subregions. The criteria for the major groupings are cultural, economic, political, and physical—in that order. Groupings of countries with common cultural and historic experiences produce the following major regional divisions. These divisions are not established for all time. Shifts that are currently in progress led to changes in the eastern boundary of the “Western Europe” major region in the first edition (1997). In this edition, the countries of eastern Europe that set their sights westward by applying to join the European Union are grouped together as “Europe” with those already in the EU. The major region previously titled “Eastern Europe, Balkans, and the Former Soviet Union” becomes the “Commonwealth of Independent States,” incorporating the countries of the former Soviet Union, minus the Baltic states.

Africa South of the Sahara has traditional cultures based on small ethnic groups. Its religions have environmental, or animistic, bases with Islamic or Christian overlays resulting from trade and colonization.

Northern Africa and Southwestern Asia has the twin uniting cultural features of Islamic religion and Arabic language and a natural environment that provides much oil but limited water resources.

Southern Asia is characterized by the intermingling of and clashes among Hindu, Islamic, and Buddhist religious cultures and British colonial influence.

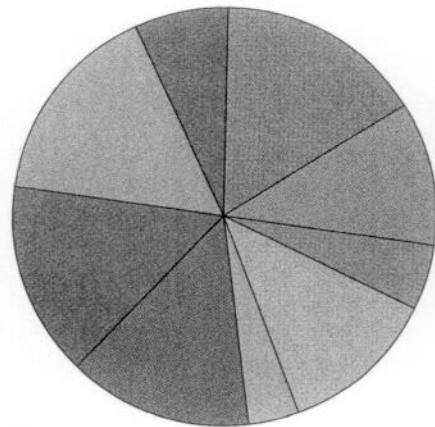
Eastern Asia was the scene of historic civilizations in China, from which cultural influences permeated the rest of the region. It had less European colonial intervention than other world regions.

Europe is the home of mainly Catholic and Protestant Christian religious groups, and of capitalism and modern industrial technology. It is increasingly defined as those countries that are present or potential members of the European Union, including those in Eastern Europe and the Balkans.

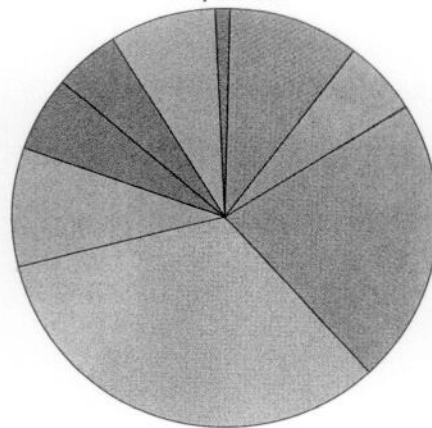
Commonwealth of Independent States stretches from easternmost Europe across northern Asia. Russia, the largest and still dominant country, was the scene of long-term clashes between the Orthodox Christian and Islamic faiths, overlaid and subdued for most of the 1900s by the communist political culture of the Soviet Union.

Anglo America is dominated by the culture brought by settlers beginning in the A.D. 1500s, at first mainly from northern and western Europe. Later people came from

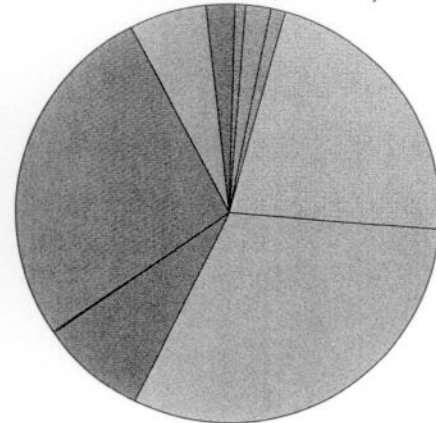
Land area



Population



Economic output (total GDP)



Africa South of the Sahara
 North Africa & Southwest Asia
 Southern Asia
 Eastern Asia
 Europe
 Commonwealth of Independent States (C.I.S.)
 Anglo America
 Latin America
 South Pacific

FIGURE 1.11 Major world regions: comparisons of area, population, and economic output (gross domestic product, GDP). Pie charts show the variations. Which major regions have more of the world's land area than its population? Which major regions have a higher proportion of the world's economic output than its population?

southern and eastern Europe and eventually from most parts of the world. It comprises the United States and Canada.

Latin America is dominated by the Roman-Catholic culture and languages brought by settlers mainly from Iberia (Portugal and Spain), who interacted with native peoples and their cultures.

South Pacific includes former European colonies, of which the largest and wealthiest are Australia and New Zealand. Distant from the home countries, they are integrating trade with their close neighbors in Eastern Asia. Antarctica, the uninhabited continent, is included in this region.

The major world regions reflect the world economy core-periphery relationships (see Figure 1.4). Europe and Anglo America were established as the world core regions by the early 1900s and continued to grow economically at the expense of the rest of the world in the periphery (Figure 1.11). During the 1900s, some countries in the periphery, mainly those in Eastern Asia and Latin America, improved their economic positions and rose into the semiperiphery (e.g., South Korea, Taiwan, Hong Kong, Singapore, Brazil, Argentina, Mexico, Thailand, and Malaysia). Japan joined the core countries to form a new core that interacts with and encourages the growing economies of Eastern Asia. The

former Soviet Union and its linked bloc of socialist countries appeared to be challenging the wealthiest core countries up to the 1980s, but their political breakup exposed an economic position that was no better than that of many peripheral countries. South Africa is likely to establish itself in a higher group than other African countries, while the People's Republic of China may become a leading economy in the new century after A.D. 2000.

Political boundaries between countries are used to define the extents of each major region and subregion. Geographers do not agree in detail upon any division of world regions. Other texts draw some boundaries differently. For example, Mauritania (an Arab country) is included with Western Africa rather than with North Africa because of its closer historic ties to the former; Sudan, another country that straddles the Muslim and southern African cultures, is included with Egypt because of their common reliance on Nile River waters. Myanmar (Burma), which dictators make an isolated country, was included in Southern Asia in the first edition because of historic colonial ties, but its 1997 membership of the Association of South East Asian Nations (ASEAN) relocated it in Eastern Asia. The boundary between Eastern Asia and the South Pacific cuts New Guinea in half, since the western half of the island (Irian Jaya) is part of Indonesia, while Papua New Guinea has a culture and economy akin to that of the South Pacific islands.

RECAP 1B: Geography and Regions

Geographers study the differences between places and interactions among them. They take account of political, economic, cultural, and environmental factors and their influences on particular sections of Earth's surface, or regions.

Regions are areas of Earth's surface with distinctive characteristics that emerge from people's interactions with the natural environment and human institutions. Regional character and boundaries change over time. Regions interact with other regions.

1B.1 How would you define *geography* and *regional geography*?

1B.2 What do you think are the major differences among the nine major world regions identified here? See if your perceptions change as you go through this course.

Key Terms:

geography	regional geography	country
absolute location	region	local region
relative location	spatial analysis	formal region
physical geography	human-environment relationships	functional region
human geography	major world region	global choke point

Key Places:

Africa South of the Sahara	Eastern Asia	Anglo America
Northern Africa and Southwestern Asia	Europe	Latin America
Southern Asia	Commonwealth of Independent States	South Pacific

GEOGRAPHIC GROWTH OF A GLOBAL ORDER

The growth and expansion of a global order can be traced from the earliest city-based civilizations, through the development of unified countries and expanding trade links across the globe, to the current position that incorporates the whole world. An understanding of historic events and their influences is basic to the study of today's world regions.

Periods of wealth, based on expanding political power and extensive trade areas, alternated with periods of empire breakup, unsettled conditions, and reduced trade. Each left an inheritance of traditions, buildings, and land patterns that later groups of people incorporated in their own developments. Each prosperous stage expanded the global area in which wealth accumulated and which engaged in the trading of high-value goods—the area subject to growing world systems.

For much of the world's history, core and periphery can be recognized over limited areas of the globe, with the remaining territory, or hinterland, remaining outside the main trading

areas. Making some huge generalizations and simplifications, world history can be summarized in five major phases.

Phase I. Before World Systems: Hunting and Farming

Around 10,000 years ago (8000 B.C.), humans formed small hunting and gathering bands, the numbers in each and the distribution of which depended on the natural productivity of the local ecosystems. Productivity could be raised in places, as where human-set fire extended natural grassland into forested areas, increasing the numbers of larger, meat-providing animals.

Settled farming began in Southwest Asia, around 8000 B.C., at first located in the subhumid hilly areas between mountains and plains. Major changes in human patterns began with the first agriculture, which was based on selected species of plants and animals that varied from southwestern Asia (wheat, barley), to China (millet, rice), the Americas (corn, squashes, beans, potatoes, peppers, tomatoes, cotton), and Africa (sorghum, yams). Animals were herded near cultivated fields, providing meat, wool, and milk, and pulling carts and carrying loads. Some of the domestic animals, especially the horse and camel, gave mobility to nomadic herders. Villages grew into the first small towns, such as Jericho, that produced pottery, textiles, and metal goods. Farming based on early irrigation techniques spread from the surrounding hills to the Tigris-Euphrates River valleys around 5000 B.C.

The economic, political, and technical changes that followed spread to other areas with similar natural environments—the lower Nile River valley (modern Egypt) and the Indus River valley (modern Pakistan). China and southeast Asia were also important centers for the domestication of plants and animals and settled farming. Europe was late on the scene, however, and settled farming did not reach northwestern Europe until 4000 B.C. Although the Americas were isolated from these developments, recorded plant cultivation there began around 7000 B.C. By 1500 B.C., corn formed the basic crop of settled villages and some larger towns in the Americas with craft industries and local trades.

Different parts of the world developed at different rates, but the geographic scale of interaction in this phase was dominantly local. Wider trading links began when areas of surplus farm production exchanged food and craft goods for building materials.

Phase II. First World System: City Civilization and the Bronze Age, 2500 to 1000 B.C.

The irrigated lowlands of Mesopotamia—drained by the Tigris and Euphrates Rivers—became the central core and periphery of a world system that eventually stretched from

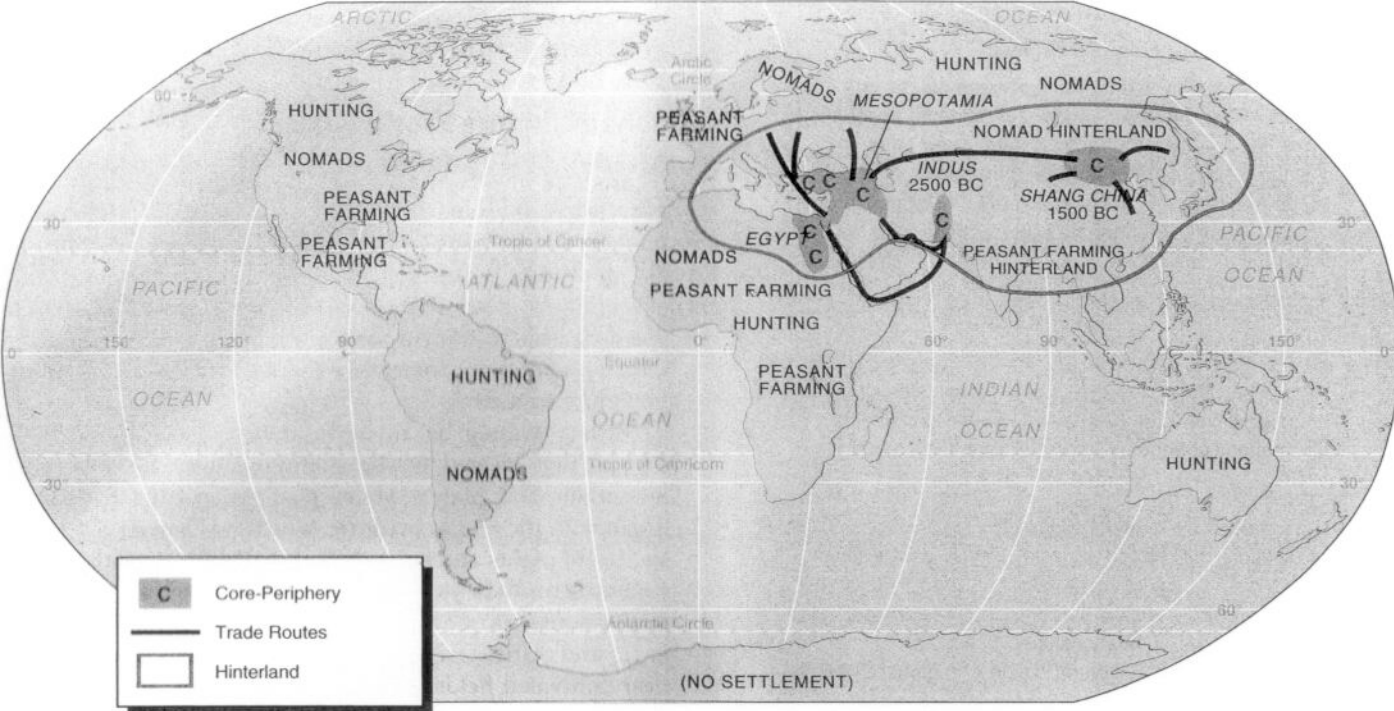


FIGURE 1.12 First world system, about 2500 to 1000 B.C. The first civilizations of southwest Asia and the Nile and Indus River valleys, with somewhat later developments in China. The core-periphery areas were the main centers of world trade and development, linking with each other along sea and overland routes. The near hinterland supplied some raw materials, but most of the world lay beyond in an unconnected outer hinterland.

the Mediterranean Sea to China (Figure 1.12). During this phase, rival city-based states in Mesopotamia, such as Ur, Akkad, and Sumer, controlled local irrigation farming. At times the processes of wealth accumulation and trade broke down under the onslaught of peoples from the hinterland. From 2000 to 1000 B.C., more powerful groupings, including the Babylonians, the Hittites, and the Assyrians, took control of this central region of the world system.

The main achievements of this phase included the first writing—to record government activities and trade; the extension of arts in warlike human likenesses, animal paintings, and statues; the foundations of mathematics; technological innovations in metal-working, pottery, and construction materials, and the invention of the wheel; religious beliefs linked to mythical prehistories; and a codification of laws, including those giving rights to women. Mesopotamia became the center of a trading network based on exporting its agricultural and craft products and importing timber, metal ores, stone, and gemstones from the local periphery. Longer routes dealt in luxuries, with connections to Egypt, Persia, and the Indus River valley, and, after 1500 B.C., to China. Slavery provided the main source of labor—often supplied by men and women captured in war and moved to work in the core area cities.

Other cores imitated developments in Mesopotamia, sometimes extending human achievements, but Mesopotamia remained central to trade links. Irrigation farming formed the basis of wealth accumulation in Egypt, which incorporated many of the Mesopotamian developments in its

own distinctive kingdoms that controlled the lower Nile River valley and built huge memorials in the pyramids. Three periods of Egyptian kingdoms were separated by invasions of outsiders, including the Hyksos, who captured the northern delta region around 1750 B.C.

The island of Crete flourished as the center of the Minoan civilization from 1900 to 1600 B.C. Less is known about the civilization in the Indus River valley around Harappa and Mohenjo-Daro, but its influence extended widely and its products have been found in Mesopotamian sites. It ended around 1550 B.C. after invasions from the north.

In China, a confederation of cities and states was gradually drawn together, but it was not until the Shang dynasty (1523–1028 B.C.) that there was wider control and an opening of trade relations to the north and west. Most of the world remained outside the immediate hinterlands, with economies based on hunting, fishing, and some farming, and was only occasionally caught up in the affairs of the core regions of wealth accumulation.

Phase III. Second World System: Expansion in the Classical Civilizations of the Iron Age, 1000 B.C. to A.D. 600

“Classical” periods that formed the basis of modern world systems occurred in Persia, Greece, Rome, India, and China during this phase, when several major world universal religions

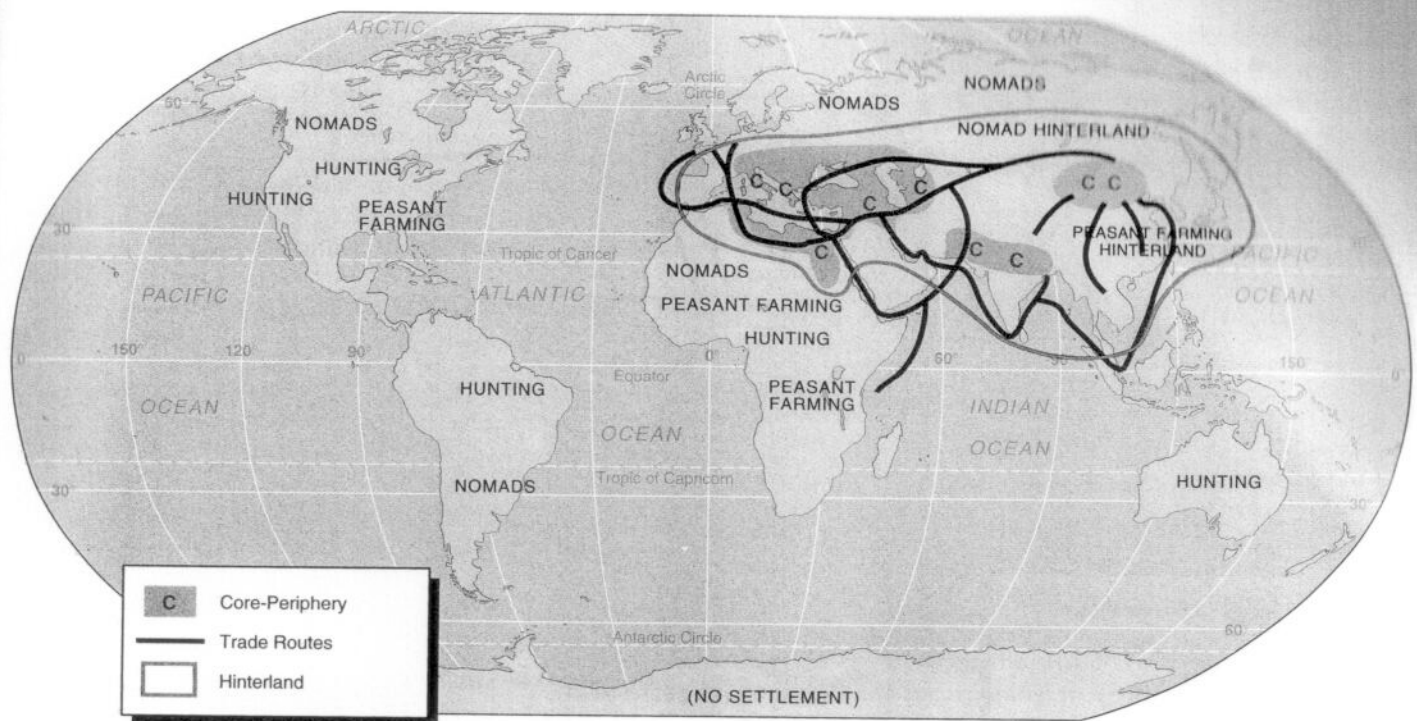


FIGURE 1.13 Second world system, about 1000 B.C. to A.D. 600. During this phase, the Greek and Roman empires expanded westward, the central Persian empire and northern India provided new cores, and the Chinese empires became organized and expansionist. By A.D. 200, there was a considerable east-west trade in luxury goods and a major growth of trade within the core-periphery zones.

and cultural systems originated. Confucius, Zoroaster, Buddha, the greatest Hebrew prophets and Greek philosophers, Jesus Christ, and Mohammed all lived between the 500s B.C. and the A.D. 600s. The Greek pantheon of gods (taken up by the Romans), the Celtic druidical religion, Scandinavian gods under Wotan, and the Egyptian Isis failed to attain the same prominence. Only in Hinduism did more ancient traditions and polytheism remain.

The geographic coverage of political and commercial activities expanded, spreading from the centers established in Phase II and shifting outward from Mesopotamia—which lost its central role (Figure 1.13). In the west, Roman legions incorporated much of northern Africa, modern Spain, France, and England into its empire. New controlling interests took over Egypt, Persia, and India. In China, the Zhou, Qin, and Han dynasties expanded the empire, opening the route through Central Asia to Persia and Rome by A.D. 200.

Economic and cultural contacts from one end of Eurasia to the other had never been so close. Luxury goods from China moved west by camel caravans through central Asia, a trade fostered by the Kushan (Afghan) and Parthian empires in the center. Other trade went by ship through the Red Sea and Persian Gulf to and from the Indian Ocean. Slavery remained the main form of labor in the fields, workshops, and domestic realms of life.

India emerged from a phase of complex movements of people and changes after the invasion of Aryan peoples, becoming a region of settled farmers concentrated along the

Ganges River valley. After 800 B.C., the Aryans penetrated into southern India and Ceylon, with their iron implements enabling the clearance of woodland. Seafaring ties to southwestern Asia increased. Many of the subsequent features of Indian religious culture were enshrined in Sanskrit literature during this phase, including the emphasis on sacrifice and the notion of caste as a basis for social relationships. Hinduism combined a complex mixture of ancient deities, right-living based on vegetarianism, human sacrifice, and asceticism. Buddhism began as an attempt to reform Hinduism in the 500s and 400s B.C., later spreading to Ceylon, Burma, and China. It repudiated the caste system and the idea of a central god and claimed deliverance from suffering through the annihilation of desire. By A.D. 100, Indian merchants established links with southwestern Asia and Egypt, exporting precious stones, indigo, and silk yarn on their way to Rome. By the end of this phase, the Gupta dynasty ruled the whole of northern India.

China was for long affected by internal disorder as emperors became figureheads without power and a hundred feudal states fought for power. Yet this was also a time when Chinese culture was consolidated and spread into surrounding lands. The collapse of the previous social order gave rise to the teachings of Kong Fuzi (Confucianism), with its strongly ethical and organizational emphasis. The more mystical Taoism (the "way" of Lao Zi) recognized a different approach to harmony with the universe through quietude. Warring states within China continued to vie for power, with the scale of destruction increasing as iron weapons

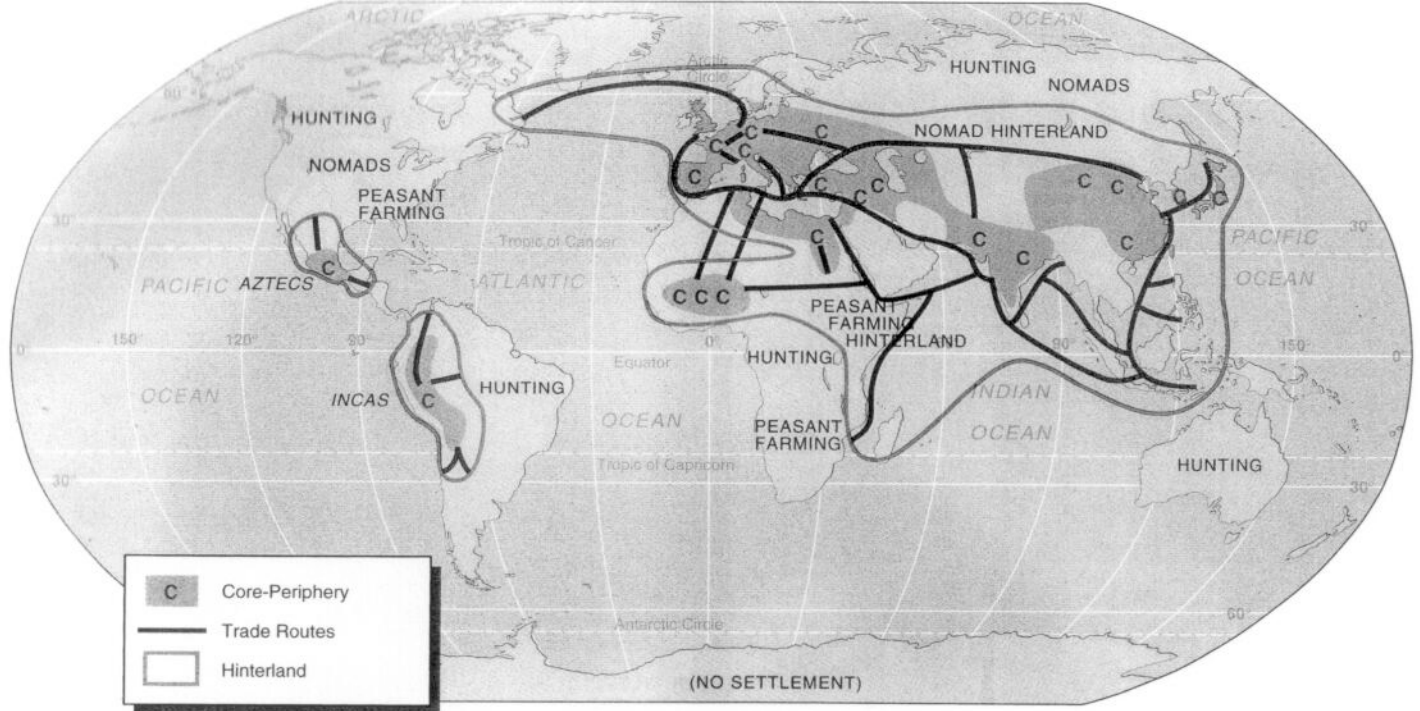


FIGURE 1.14 Third world system, about A.D. 600 to 1450. This period began with disruptions in Europe and included invasions from the Eurasian steppes and Viking homelands. It also saw the development of new empires outside the previous world systems, including the Americas. Some regions experienced important periods of political consolidation and wealth accumulation.

came into use alongside the implements that brought new land into cultivation. China combined a rising population, innovative technology, and expanding trade. The Qin controlled the northwest and west by 300 B.C. and all China by 221 B.C. The Han, under whom the Chinese empire became the most prosperous in the world, succeeded the Qin. This was the time when the Roman Empire reached its greatest extent in the west. By A.D. 100, Buddhism entered China, linking to both Confucianism and Taoism. The combination of a court weakened by factions and child emperors, incursions by nomadic Xiongnu from the north, and poor harvests, however, led to a breakdown and division of the empire. This ended phase III.

Phase IV. The Third World System: Medieval Times, A.D. 600 to 1450

Although the term *medieval* is applied mainly to Europe, it signifies a middle phase in the development of world systems between the classical and modern eras. It involved interruptions to wealth accumulation and trade. The classical world that set the tone for much of succeeding world history and culture was followed by "Dark Ages" with invasions from central Asia of core areas in Rome, Greece, northern China, Persia, and India. Western Europe remained disorganized and backward as the result of continuous invasions from the east.

New empires arose in Byzantium (centered on Constantinople), Persia, northern India, China, Indo-China, Korea,

and Japan. The Muslim expansion from the A.D. 600s out of southwestern Asia to Persia and North Africa—one of the most important events in history—was followed by Arab traders penetrating across the Sahara in northern Africa and taking a major role in the Mediterranean Sea and Indian Ocean. In western Africa, the kingdoms of Ghana, Mali, and Songhai followed each other. In the Americas, the Mayas, Aztecs, and Incas established military-economic control over large areas (Figure 1.14).

Mass Migrations

Huge movements of peoples were set off by invading hordes from the steppe grasslands of central Asia. Mounted archers with light armaments were mobile and effective, attacking crucial centers of power. As they moved out of central Asia, they often pushed other groups ahead of them into southern China, India, and northern Europe. They spread Turkish languages westward but were seldom able to govern settled peoples for long. In the westward movements caused by such pressures during the 300s to 500s, German and Slavic tribes moved on to former Roman Empire lands, often pushed westward from present-day Ukraine by Goths and Huns. Further disruption and resettlement followed the Magyar invasions of Hungary in the late 800s. The Great Wall of China, however, proved an effective defense frontier for the Chinese. Other nomad groups followed throughout Phase IV, with the most significant and final invasions in the 1200s and 1300s by the Mongols, who conquered and ruled China for 200

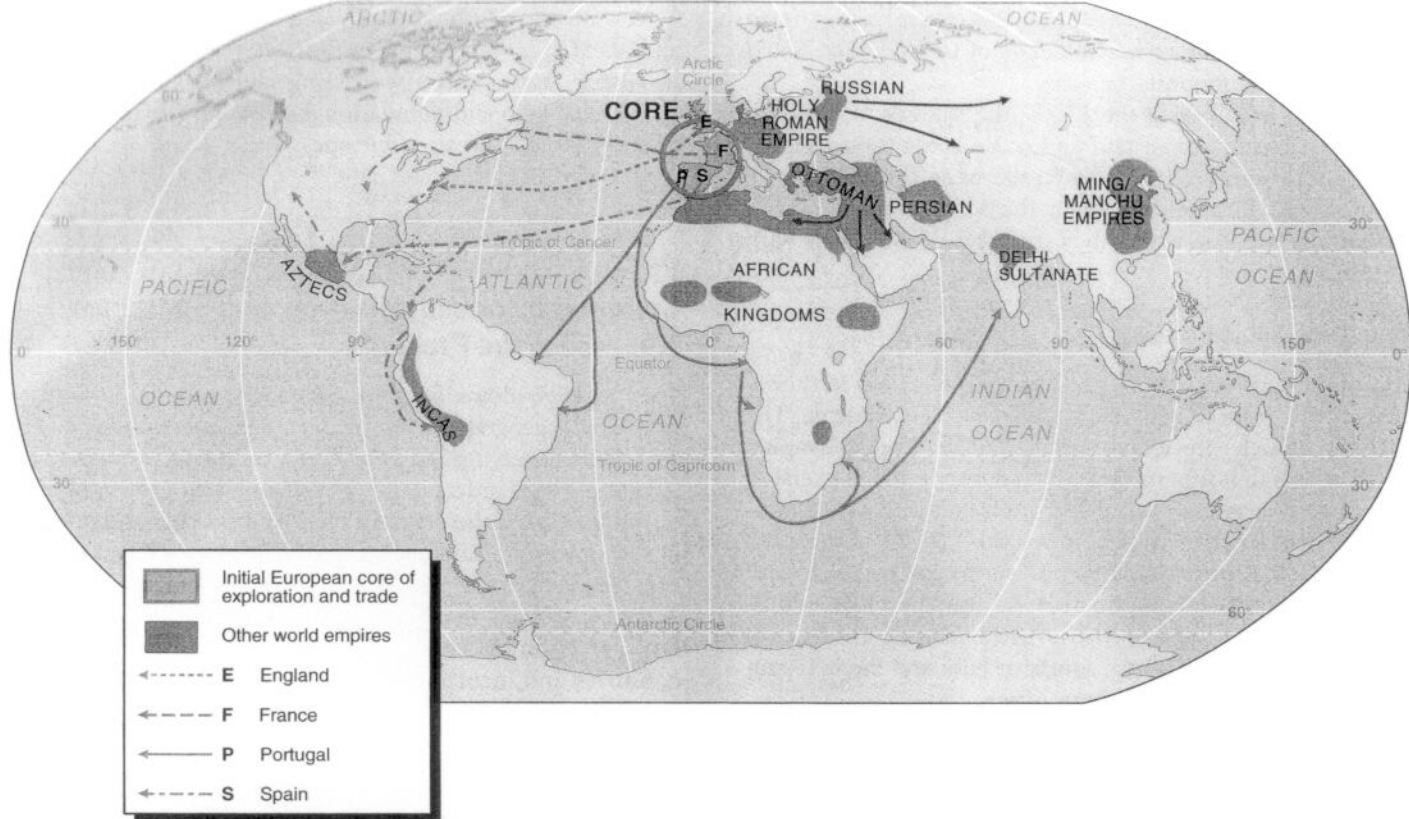


FIGURE 1.15 Fourth world system, part 1, about A.D. 1450 to 1750. This phase was dominated by the capitalist means of wealth accumulation. In the first period, about A.D. 1450 to 1750, mercantile capitalism led to the exploration from Europe of new lands, along with some colonization. Other empires existed outside the European realm and traded with each other (see also Figures 1.16 and 1.20).

production and communication expanded the geographic scope of exchange and control from the 1400s until today. At first, in the period A.D. 1450 to 1750 (Figure 1.15), **mercantile capitalism** grew out of European feudalism as merchants based in independent market towns and ports traded local products, such as wool and cloth, for spices and dried fish from overseas. Primary products of the fishing, timber, mining, and farming industries were the main goods distributed through mercantile capitalism. Owners of capital invested it in land and farming improvements, such as the drainage of wetlands in Holland and England, or in trading expeditions to the new colonies. Some regions specialized in producing cloth, at first in people's homes with merchants collecting and selling the output.

Such trade resulted in the growth of linkages among market towns within European countries and led to the overseas colonization of new territories to provide sources of new products. European countries, beginning with Spain and Portugal in the 1500s but giving way to French, Dutch, and British merchants and military in the 1600s, invested in exploration and trade with Africa, Asia, and the Americas. Western Europe became the core of the new capitalist

economic system, while its colonies and trading stations were its periphery. Other parts of the world remained in the hinterland of isolated subsistence or feudal systems until the 1800s.

From A.D. 1750 until the early 1900s, the first industrial revolutions set off growth in factory-based manufacturing industries, bringing a new impetus to the capitalist economic system and hastening its world dominance (Figure 1.16). The concentration of manufacturing production in factories involved high levels of investment in buildings and machinery. Production in factories added significant value to the raw materials and components and brought good returns on the investments. Manufacturing also required investment in transportation facilities linking the factories to their sources of raw materials, component producers, and markets. New social groups emerged out of the production processes, from the owners to the managers, foremen, and workers. New distinctive patterns of towns, new functional areas within towns, transportation links, and regional wealth inequalities marked this phase of **industrial capitalism** (Figure 1.17).

Industrial capitalism experienced alternating periods of expansion and stagnation from the mid-1700s to the present

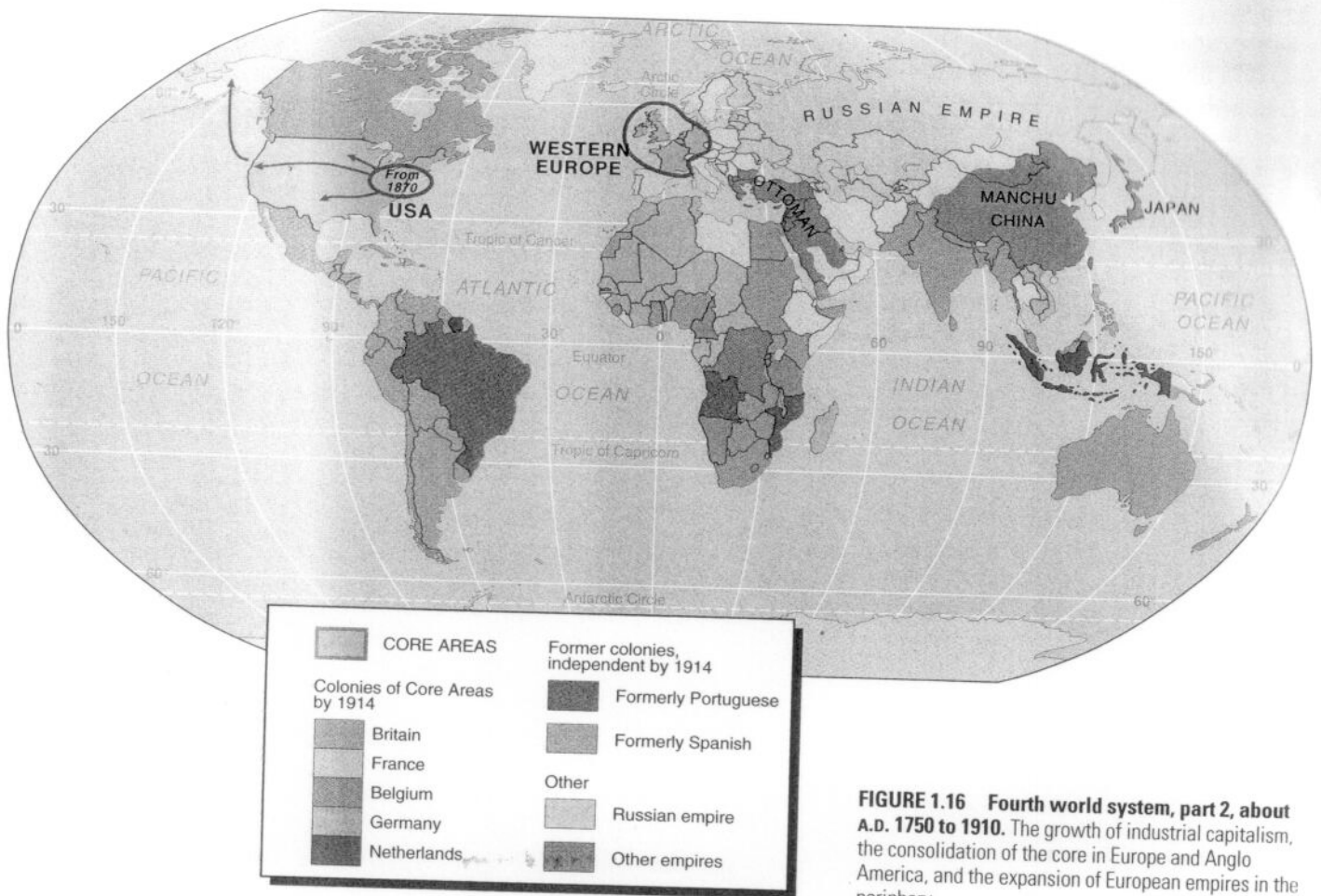


FIGURE 1.16 Fourth world system, part 2, about A.D. 1750 to 1910. The growth of industrial capitalism, the consolidation of the core in Europe and Anglo America, and the expansion of European empires in the periphery.

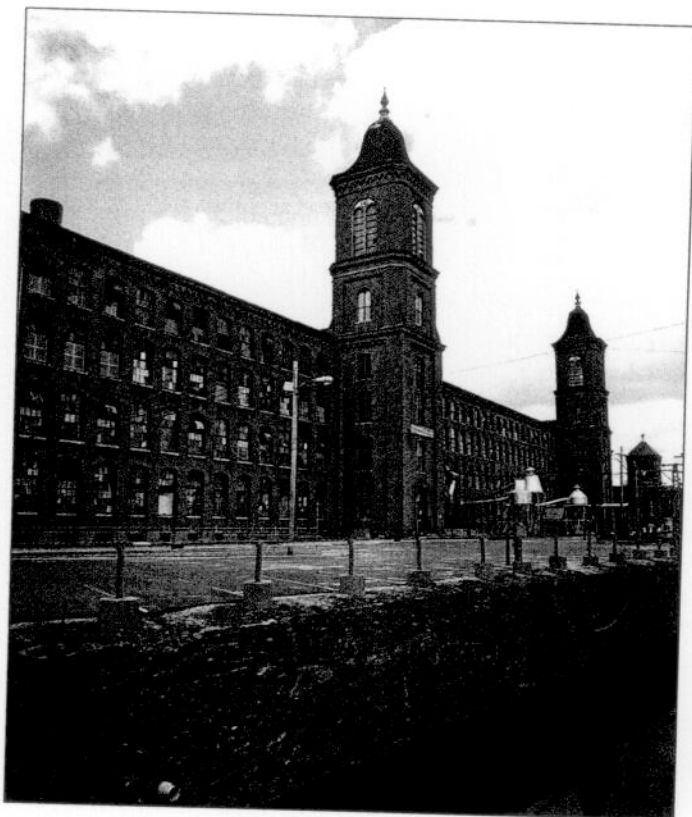


FIGURE 1.17 Industrialization in the 1800s. A textile mill in North Groverdale, Connecticut. Built in 1872 beside a canal, its four floors enabled steam power based on burning coal to be used more efficiently.

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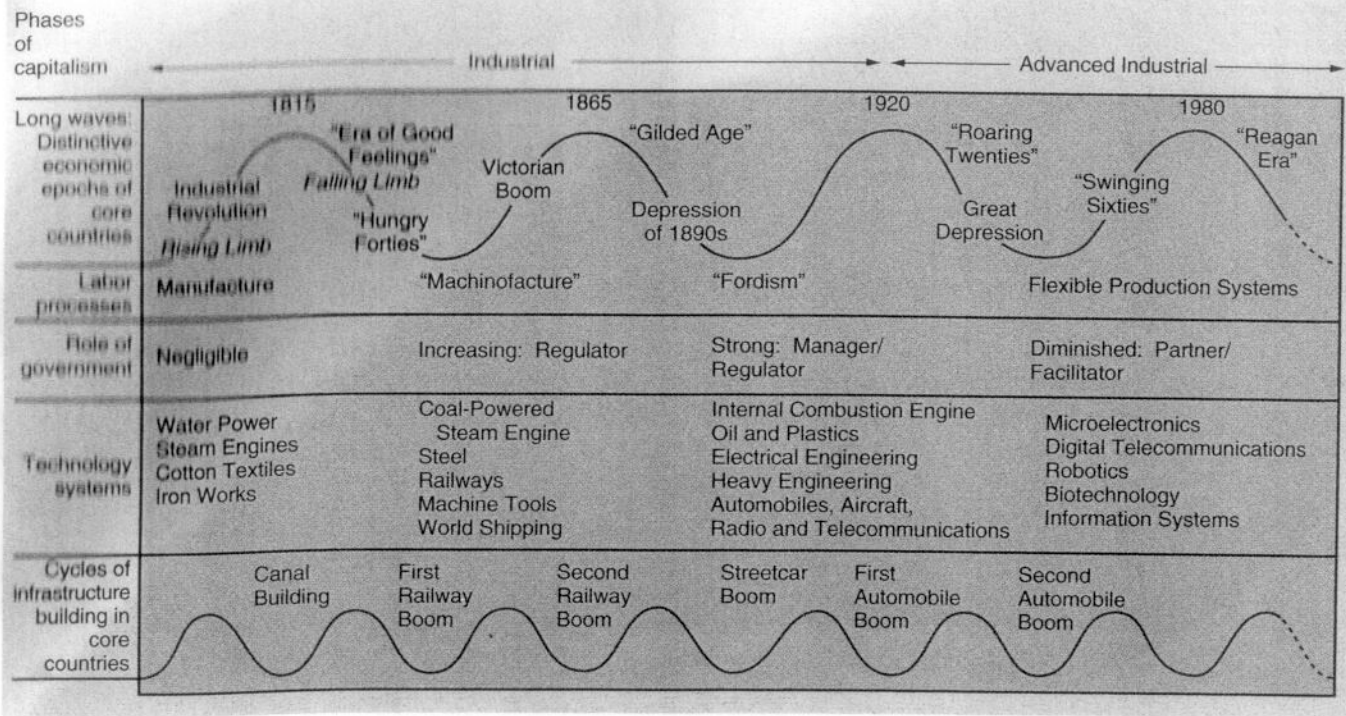


FIGURE 1.18 Fourth world system: economic fluctuations. This summary mainly reflects experiences in the United States. The rising limb of each long wave was accompanied by the development and use of new technologies of manufacture and transportation that enlarged productive capacity. Core-periphery relations expanded into new world areas. During the falling limb, costs to manufacturers (such as the price of raw materials from peripheral countries) increased, and there was less money for new investments. Suggest how these fluctuations affected countries in the world periphery.

Adapted from P. Knox and J. Agnew, *Geography of the World Academy*, 1989. Copyright © 1989 Edward Arnold Publishers, Ltd., London.

(Figure 1.18). During periods of expansion, new technologies of production and transportation caused a series of further industrial revolutions and spread the influence of capitalism. Cities expanded as more factories and homes were built to accommodate workers moving from the countryside to work in factory jobs. Overseas exploration opened new lands to the commercial production of goods that entered world trade. During periods of stagnation, technological innovation slowed, while surpluses of labor, productive capacity, and capital resulted in economic recession. Places still dominated by subsistence and feudal economic systems were reoriented as the world economic system advanced further in each phase of expansion.

Four major periods of industrial revolution, followed by slower economic expansion, mark the world economic system since 1750.

- **First industrial revolution, 1750 to 1850.** The first factories were in Britain, powered by water mills and then steam engines. They processed agricultural and mine outputs. The early manufacturing industries included iron working, cotton textiles, leather goods, and pottery. This was a period of competition among family-owned manufacturing firms, particularly in western Europe and the United States. Transportation was mainly by water

around the coasts, up rivers, and along specially constructed canals linking the manufacturing areas with ports, raw material sources, and markets. After boom conditions up to the 1820s, further economic growth proved slow in the 1830s and 1840s as production capacity caught up with demand.

Territorial expansion overseas accompanied the growth phase. Britain's booming economy in the early 1800s, and its world naval dominance following the defeat of Napoleonic France in 1815, led to it establishing political control over India (see Chapter 5) and Australia (see Chapter 11), followed by commercial dominance in the newly independent Latin American countries (see Chapter 10). Other European countries followed this example. The United States (Chapter 9) began its industrial growth in the early 1800s. It accomplished a remarkable expansion of territory as it pushed out its borders by incorporating the western two-thirds of its conterminous lands between 1803 and 1853 and adding Alaska in 1867.

- **Second industrial revolution, 1850 to 1910.** Manufacturing production techniques spread from Britain to several parts of northern Europe by the 1850s. During the late 1800s, new technologies based on steel and

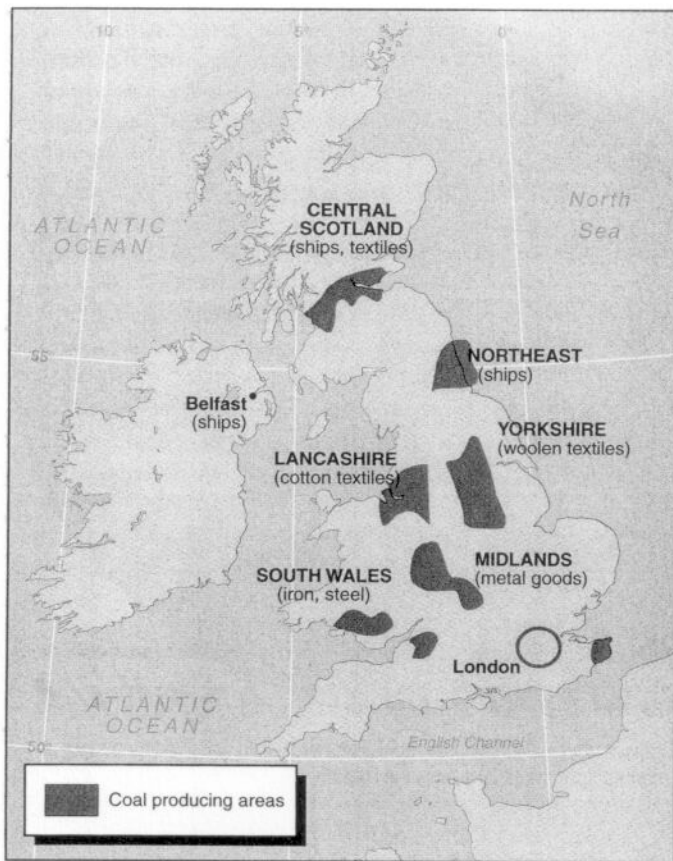


FIGURE 1.19 Industrialization in the 1800s and coalfield locations. Areas of Britain that produced coal were industrialized and urbanized, growing rapidly in wealth and population. They suffered setbacks in the 1900s as their products competed at a disadvantage with new areas in other parts of the world.

chemical products, steam power, and railroad transportation networks instigated another industrial revolution and a massive expansion of manufacturing in both scale of production and geographic extent. Coal became the main energy source and a major raw material in steel production; many coalfield areas became centers of industrial expansion (Figure 1.19). Germany and the United States rivaled Britain in output as Britain concentrated on expanding its empire into Africa and failed to continue its lead into new technologies. Once again, an initial spurt of industrial production in the 1860s and 1870s gave way to slower growth in the 1880s and 1890s.

During the late 1800s, manufacturing industry underwent organizational changes that developed further capacity for growth. Family firms struggled in times of recession, and many sold out to growing corporations. For example, Andrew Carnegie, after a rapid rise in the U.S. railroad industry, understood the potential of the new steel technology and established a steel mill near

Pittsburgh in the early 1870s; he later bought out other steelmakers in a process of horizontal integration. During the 1880s, he took control of all aspects of production from mining coal and iron ore to making steel and selling steel rails and other steel products—a process of vertical integration. By 1900, Carnegie Steel had 20,000 employees and was the world's largest industrial corporation. In the following year, it joined other U.S. steelmakers to form the US Steel Corporation with 168,000 employees—a totally new scale of manufacturing activity and control. The growth of corporation size and power enabled one or a few firms to control prices and wages. This trend sparked resistance to unfettered corporate control as labor became organized and the U.S. Congress passed antitrust legislation to regulate price-fixing abuses.

- **Third industrial revolution, 1910 to 1950.** In the early 1900s, another industrial revolution brought further technological innovations and geographic expansion of capitalist enterprise. There was more economic growth in the world's expanding cores of Western Europe and the United States (Figure 1.20). The energy dominance of coal and steam was challenged by the use of oil, natural gas, and electricity. Roads, cars, trucks, pipelines, and airplanes challenged the transportation dominance of ocean liners, cargo ships, and railroads. Product ranges diversified into electrical consumer goods, cars and trucks, aircraft, plastics, radios, and telecommunications.

Production methods in the core manufacturing industries changed to the mass production on assembly lines that had been pioneered by Henry Ford in car production—and hence termed “Fordist.” Scientific management and mass consumption in the richer countries backed such methods. Corporate ownership replaced the family ownership of firms, with U.S. corporations beginning to transfer their cost advantages in car and consumer goods manufacture to new factories in Europe.

During the early 1900s, large new areas of agricultural and mineral production opened in southwestern Asia, South America, Australia, and parts of Africa, thus expanding the resource base and increasing competition among peripheral resource providers. Costs were reduced for core-country manufacturers. The core countries produced nearly all the manufactured goods and sold their products in reciprocal trade to peripheral countries after having benefited from the added value in manufacturing. Core countries gained further wealth and often invested in urban expansion through the building of suburbs. Public transportation and private cars provided access to suburban housing. More people could afford the new mass-produced consumer products.

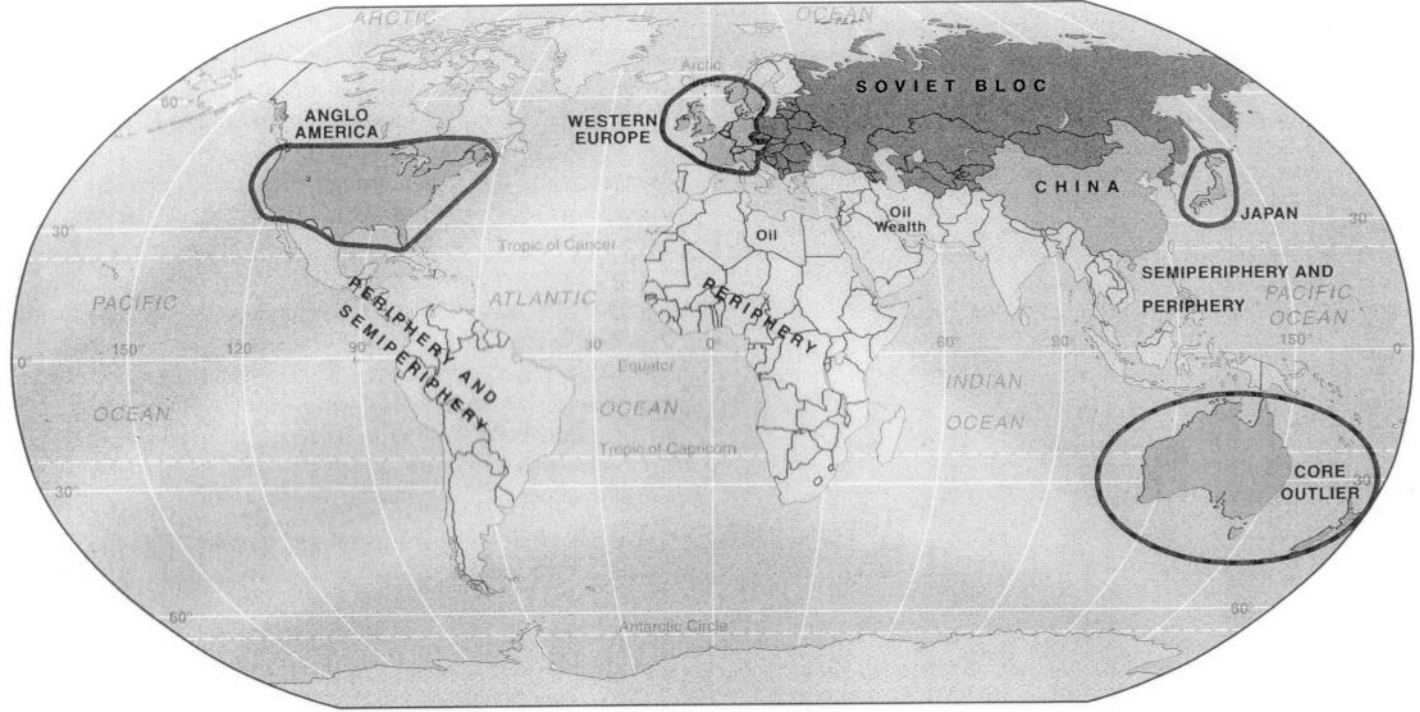


FIGURE 1.20 Fourth world system, part 3, about A.D. 1910 to present. State capitalism, advanced industrial capitalism, two world wars, independence of former European colonies, expansion of world trade, and technologic developments in manufacture, transportation, and communications marked this period.

Up to 1950, the world economic core remained in western Europe and Anglo America, while most of Africa and southwestern Asia were drawn into the colonial linkages that dominated the rest of the world outside of Latin America, China, and Japan. Japan went through its own period of industrialization but had limited participation in the expanding world economic system before 1950. Ex-colonial or largely uncolonized areas entered the periphery as their commercial relations with the core countries grew. The gap between core and periphery increased.

The years of core country economic growth ended temporarily in the economic depression of the 1930s, followed by World War II in the 1940s. Government and trade unions became more involved in the regulation and mediation of industrial affairs during this period, while governments achieved further prominence through organizing the production of war materials.

- **Fourth industrial revolution, 1950 on.** World War II was followed by a new period of technological diffusion, often based on products developed during the war—jet engines, electronics, and aerospace—together with expanded ranges of consumer goods and increasingly packaged foods. This led to further urban growth in core countries

to accommodate workers in the expanding manufacturing and service industries.

The wider world economic order experienced political changes, such as the independence of most of the former core-country colonies, and the eruption of the Cold War. Some of the newly independent countries sought economic links with, and assistance from their former colonizers, such as Britain and France. Others looked to alternative sources of markets, guidance, and support from the United States or the Soviet bloc.

Large corporations, beginning with those in the United States and extending to their counterparts in western Europe and Japan, controlled production and distribution in many countries. Such multinational corporations began to maneuver governments and labor interests by siting new production plants in countries where labor costs were low.

Technological advances further mechanized and automated farm and factory production in the core countries. Such processes required less semiskilled labor in many industries and led to redundancies. The service sector grew in significance as additional jobs were created in expanded health, education, professional, business, recreation, and especially government services. This trend began in core countries.

Manufacturing employment shifted to newly industrializing countries, mainly in Eastern Asia and Latin America (South Korea, Taiwan, Hong Kong, Singapore, Malaysia, Thailand, Brazil, and Mexico). These countries competed with the core countries of the West, and a new core began to form in Eastern Asia, centered on Japan.

In the 1970s, world economic growth faltered as raw material, and especially energy, prices rose. New prospects for economic growth emerged in the 1980s. The development of microelectronics, biotechnology, robotics, and information systems may signal the start of another period of industrial revolution and world economic growth at the beginning of the new century. Another view of the current situation, however, is that the post-Fordist, or postmodern, period is one of uncertainty and confusion resulting from the global extension of the world economic system.

RECAP 1C: Growing Global Order

World history records how civilizations spread their geographic impact through core and peripheral regions. Periods of wealth accumulation and expansion of empires and trade alternated with periods of disruption. During the 1900s, the world's core regions expanded their periphery to include the whole world in the capitalist economy.

- 1C.1 Construct a chart to summarize the main features of the expanding global order, using the hierarchy of timescales and the geographic differentiation of local, regional, countrywide, and global.
- 1C.2 How far is a knowledge of the growth of the global order essential to our understanding of modern world geography?

Key Terms:

world system	state capitalism	industrial capitalism
capitalism	mercantile capitalism	

CHAPTER REVIEW QUESTIONS

1. Before 1990, the Second World consisted of countries that (a) placed individual rights as the first priority of government (b) tried to implement the communist principles of Marx and Lenin (c) had democratic governments (d) were newly independent
2. A group's culture includes (a) ideas (b) beliefs (c) gender roles (d) all of the above
3. To a geographer, a landscape is (a) pretty scenery, suitable for an artist to paint (b) planting flowers and shrubbery in front of one's house (c) the result of interaction between people and environment over time (d) the design of a new park
4. Which of the following is *not* an example of a global choke point? (a) Strait of Malacca near Singapore (b) Davis Strait in northern Canada (c) Panama Canal in Central America (d) Strait of Hormuz at the entrance to the Persian Gulf
5. Settled farming began (a) in Egypt about 3000 B.C. (b) in the Tigris-Euphrates Valley around 5000 B.C. (c) in Africa around A.D. 100 (d) in hill lands of Southwest Asia around 8000 B.C.
6. The core of the first world system was in (a) Mesopotamia (b) Egypt (c) China (d) Greece
7. Which of the following was *not* a characteristic of the Second Industrial Revolution? (a) use of electricity (b) importance of coal (c) growth of railroad networks (d) development of large industrial corporations through vertical and horizontal integration
8. Which of the following countries is in the "North" according to the "Brandt Line" but is in the periphery in the New World Order? (a) Russia (b) China (c) Kazakhstan (d) Mexico
9. The major world region with the largest share of population is (a) Europe (b) Commonwealth of Independent States (c) Anglo-America (d) Eastern Asia
10. Which of the following is *not* a characteristic of countries with socialist economic systems? (a) state-directed central economic planning (b) health care and education for a large portion of the population (c) widespread ownership of consumer goods (d) most of the population in the lower-income group
11. After 1990, Russia was the sole remaining superpower. True / False
12. The spread of Western food and drink, popular culture, and consumer goods has completely obliterated cultural differences in the world. True / False
13. Because of an increasingly interconnected world, in which global forces impact local events, geography no longer matters. True / False
14. "Classical" periods that formed the basis of modern world systems occurred in Persia, Greece, Rome, India, and China between 1000 B.C. and A.D. 600. True / False

15. The rise of Islam and expansion of the Muslims took place in a period considered "backward" in Europe.
True / False
16. The first phase of the Industrial Revolution began in the United States.
True / False
17. In the Third Industrial Revolution, more parts of the world were drawn into the capitalist industrial system, and the gap between core and peripheral countries narrowed.
True / False
18. In the Fourth Industrial Revolution, production and distribution of many goods began to be controlled by large multinational corporations.
True / False
19. During the Cold War, countries of the First World competed with countries of the Second World for influence over countries of the Third World.
True / False
20. The economic system that emphasizes private or corporate organization of business and investment is the _____ system.
21. Poor countries that have a narrow range of products, less advanced technology, and poorly paid workers are said to be in the _____.
22. Materials stored in the natural environment that human societies use in their cultural and economic systems are _____.
23. The first form of capitalism, developing from the 1450s and involving European merchants trading local products for fish and spices overseas, was _____ capitalism.
24. The use of assembly lines and scientific management in manufacturing is called _____.
25. As an example of the power of core countries, the World Bank and the International Monetary Fund are headquartered in _____.
26. Countries that are in the process of moving between being in the core and being in the periphery are called _____.
27. The world as it would be without human modification constitutes the _____.
28. The location of a place as defined by its position on the Earth's surface, usually in terms of latitude and longitude, is its _____.
29. Distinctive parts of the Earth's surface with characteristics determined by a combination of physical and human geographic features are _____ regions.
30. When the government, rather than individuals or corporations, control production and distribution in an essentially capitalist world, the result is _____ capitalism.