
AHR Forum
Cross-Cultural Interaction and Periodization
in World History

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PERIODIZATION RANKS AMONG THE MORE ELUSIVE TASKS of historical scholarship. As practicing historians well know, the identification of coherent periods of history involves much more than the simple discovery of self-evident turning points in the past: it depends on prior decisions about the issues and processes that are most important for the shaping of human societies, and it requires the establishment of criteria or principles that enable historians to sort through masses of information and recognize patterns of continuity and change. Even within the framework of a single society, changes in perspective can call the coherence of conventionally recognized periods into question, as witness Joan Kelly's famous essay "Did Women Have a Renaissance?" or Dietrich Gerhard's concept of "old Europe."¹

When historians address the past from global points of view and examine processes that cross the boundary lines of societies and cultural regions, the problems of periodization become even more acute. Historians have long realized that periodization schemes based on the experiences of Western or any other particular civilization do a poor job of explaining the trajectories of other societies. To cite a single notorious example, the categories of ancient, medieval, and modern history, derived from European experience, apply awkwardly at best to the histories of China, India, Africa, the Islamic world, or the Western hemisphere—quite apart from the increasingly recognized fact that they do not even apply very well to European history.² As historians take global approaches to the past and analyze human experiences from broad and comparative perspectives, however, questions of periodization present themselves with increasing insistence. To what extent is it possible to identify periods that are both meaningful and coherent across the boundary lines of societies and cultural regions? What criteria or principles might

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¹ Joan Kelly-Gadol, "Did Women Have a Renaissance?" orig. pub. in Renate Bridenthal and Claudia Koonz, eds., *Becoming Visible: Women in European History* (Boston, 1977), 137–64; rpt. in Joan Kelly, *Women, History and Theory: The Essays of Joan Kelly* (Chicago, 1984), 19–50. Dietrich Gerhard, *Old Europe: A Study of Continuity, 1000–1800* (New York, 1981).

² On the last point, see Gerhard, *Old Europe*; and C. Warren Hollister, "The Phases of European History and the Nonexistence of the Middle Ages," *Pacific Historical Review*, 61 (1992): 1–22.

help historians to sort out patterns of continuity and change and to distinguish such periods?³

This essay suggests that efforts at global periodization might profit by examining participation of the world's peoples in processes transcending individual societies and cultural regions. From remote times to the present, cross-cultural interactions have had significant political, social, economic, and cultural ramifications for all peoples involved. Thus it stands to reason that processes of cross-cultural interaction might have some value for purposes of identifying historical periods from a global point of view. Moreover, with cross-cultural interactions as their criteria, historians might better avoid ethnocentric periodizations that structure the world's past according to the experiences of some particular privileged people. Scholars increasingly recognize that history is the product of interactions involving all the world's peoples.⁴ By focusing on processes of cross-cultural interaction, historians might more readily identify patterns of continuity and change that reflect the experiences of many peoples rather than impose on all a periodization derived from the experiences of a privileged few.

Two caveats about the periodization proposed here deserve some consideration. In the first place, a periodization based on cross-cultural interaction cannot pretend to embrace literally all of the world at all times. For most of history, the Eastern hemisphere, the Western hemisphere, and Oceania were largely self-contained regions whose peoples encountered each other infrequently and sporadically, if at all. Within each of the three regions, however, cross-cultural interactions took place regularly and shaped the experiences of all peoples involved. The understanding of early interactions is particularly strong for Eurasia and much of Africa, so that cross-cultural interactions serve well as the basis for periodization in much of

³ Several scholars have already offered thoughtful reflections on periodization from a global point of view. Some explicitly argue or implicitly assume that human societies evolve in reasonably similar fashion, so that periodization depends on the identification of stages that all societies pass through. Apart from the large body of Marxist evolutionary scholarship, see, for example, Robert McC. Adams, *The Evolution of Urban Society: Early Mesopotamia and Prehispanic Mexico* (Chicago, 1966). Others have proposed hemispheric and global cycles as foundations for periodization: see Andre Gunder Frank, "A Theoretical Introduction to 5,000 Years of World System History," *Review*, 13 (1990): 155-248; and the essays in Andre Gunder Frank and Barry K. Gills, eds., *The World System: Five Hundred Years or Five Thousand?* (London, 1993). Yet others envision periodizations based to some extent on cross-cultural interactions: see Ross E. Dunn, "Periodization and Chronological Coverage in a World History Survey," in Josef W. Konvitz, ed., *What Americans Should Know: Western Civilization or World History? Proceedings of a Conference at Michigan State University, April 21-23, 1985* (East Lansing, Mich., 1985), 129-40; Peter N. Stearns, "Periodization in World History Teaching: Identifying the Big Changes," *History Teacher*, 20 (1987): 561-80; and William A. Green, "Periodization in European and World History," *Journal of World History*, 3 (1992): 13-53. See also William A. Green, "Periodizing World History," *History and Theory*, 34 (1995): 99-111. William H. McNeill, *The Rise of the West: A History of the Human Community* (Chicago, 1963), does not address the issue of periodization directly but nonetheless contributes to its understanding by offering an integrated history of the world from a global point of view. See also McNeill's reflections on "*The Rise of the West* after Twenty-Five Years," *Journal of World History*, 1 (1990): 1-21. This essay draws inspiration from the contributions cited above, and it seeks to complement them by proposing a principle for identifying coherent periods of history from a global point of view.

⁴ A few examples of recent works that nicely illustrate this point about the modern world: Mechal Sobel, *The World They Made Together: Black and White Values in Eighteenth-Century Virginia* (Princeton, N.J., 1987); John E. Wills, Jr., "Maritime Asia, 1500-1800: The Interactive Emergence of European Domination," *AHR*, 98 (February 1993): 83-105; Edward W. Said, *Culture and Imperialism* (New York, 1993); Ronald T. Takaki, *A Different Mirror: A History of Multicultural America* (Boston, 1993); and Paul Gilroy, *The Black Atlantic: Modernity and Double Consciousness* (Cambridge, Mass., 1993).

the Eastern hemisphere even before modern times. From the sixteenth century forward, cross-cultural interactions provide a foundation for a genuinely global periodization of world history.

In the second place, global periodizations do not represent the only useful or appropriate frames for historical analysis. It goes without saying that developments internal to individual societies—such as the building of states, social structures, and cultural traditions—have profoundly and directly influenced the historical experiences of the lands and peoples involved. (Of course, these “internal” developments have generally taken place within a much larger context that helps to account for local experiences.) Moreover, different peoples have participated in large-scale processes to different degrees, so global periodizations often chart historical development in approximate rather than finely calibrated fashion. Thus global periodizations must allow for alternatives that are sensitive to the nuances of local experiences. Peter Brown’s concept of “late antiquity,” for example, has great power for the effort to understand historical development in the Mediterranean basin and Southwest Asia, even if it does not resonate on a hemispheric or global scale.⁵ Periodizations of individual lands and particular regions will often be more subtle and specific than global periodizations, since they have the potential to reflect more accurately local patterns of continuity and change. Thus, while striving to understand historical development on the large scale, global historians must acknowledge that their periodizations do not always apply equally well to all the lands and regions that they ostensibly embrace.

Nevertheless, global periodizations have their place in contemporary historical scholarship. To the extent that historians consider it valuable to examine the past from global and comparative points of view, they need to identify periods of history that coherently situate historical development in large geographical and cultural contexts. Moreover, global periodizations also have the potential to establish pertinent larger contexts for the understanding of local and regional experiences. For purposes of constructing these global periodizations, the analysis of cross-cultural interactions and their results holds rich promise.

WHEN DEALING WITH THE PAST FIVE CENTURIES, efforts at global periodization clearly must take cross-cultural interactions into account. Since the year 1492, the regions of the world have come into permanent and sustained contact with each other, and cross-cultural interactions have profoundly influenced the experiences of all peoples on earth. Legions of scholars have examined the effects of cross-cultural interactions in modern times while exploring themes such as long-distance trade, exchanges of plants, animals, and diseases, transfers of technology, imperial and

⁵ Of Peter Brown’s many thoughtful and penetrating works, see especially *The World of Late Antiquity, A.D. 150–750* (London, 1971); and *The Making of Late Antiquity* (Cambridge, Mass., 1978). In the form of mass migrations, of course, cross-cultural interactions were a prominent feature of late antiquity. In his own work, however, Brown has concentrated on the cultural and religious history of the Mediterranean basin, and to a lesser extent of Southwest Asia, without placing the experiences of those regions in a larger Eurasian or hemispheric context and without directly addressing the theme of cross-cultural interaction.

colonial ventures, missionary campaigns, the transatlantic slave trade, and the development of global capitalism.⁶

For earlier periods, however, it might seem that founding a global periodization on cross-cultural interactions stretches a point beyond usefulness. Granting that the world's peoples did not live in isolated, hermetically sealed societies until 1492, it remains a legitimate question whether cross-cultural interactions were intensive and extensive enough to provide frameworks for periodization in pre-modern times. It is a reasonable concern, for example, that a periodization founded on cross-cultural interaction might accord undue privileges to that tiny fraction of humanity that undertook long-distance travel or that otherwise became directly engaged in cross-cultural interactions in pre-modern times.

Yet, even in pre-modern times, processes of cross-cultural interaction had implications that went far beyond the experiences of the individuals who took part in them. Three kinds of processes in particular had significant repercussions across the boundary lines of societies and cultural regions: mass migrations, campaigns of imperial expansion, and long-distance trade. Mass migrations had the potential to bring about political, social, economic, and cultural transformations in the lands they touched. The migrations of Indo-European, Bantu, Germanic, Turkish, Slavic, and Mongol peoples all worked profound effects across the boundary lines of societies and cultural regions. These migrations touched almost every corner of the Eastern hemisphere before modern times. Meanwhile, the migrations of ancient Siberian and Austronesian peoples led to the establishment of human societies in the Western hemisphere and the Pacific islands.

Alongside migrations, empire building also influenced historical development across the boundary lines of societies and cultural regions. The establishment of large-scale empires did not necessarily imply the extension of close, centralized supervision to all lands and peoples falling within imperial boundaries. "Heaven is high, and the emperor is far away," according to a Chinese proverb, which acknowledged a degree of *de facto* independence enjoyed by local and regional authorities of pre-modern empires. Even in the absence of effective central supervision, however, pre-modern empire building deeply influenced human societies. Quite apart from the imposition of foreign rule and taxes on conquered peoples, imperial expansion also favored the establishment of commercial and diplomatic relations between distant peoples, as well as the spread of cultural traditions.

Granting the importance of mass migrations and imperial conquests, questions might still remain about the significance of long-distance trade in pre-modern times. Traditional wisdom holds that long-distance trade in pre-modern times dealt largely if not exclusively with luxury goods of high value relative to their bulk. Traffic in such goods might make for a fascinating topic of inquiry, since it sheds

⁶ See, among others, Philip D. Curtin, *Cross-Cultural Trade in World History* (New York, 1984); Daniel R. Headrick, *The Tentacles of Progress: Technology Transfer in the Age of Imperialism, 1850-1940* (New York, 1988); Immanuel Wallerstein, *The Modern World-System*, 3 vols. (New York, 1974-); Eric R. Wolf, *Europe and the People without History* (Berkeley, Calif., 1982); William H. McNeill, *Plagues and Peoples* (Garden City, N.Y., 1976); and two works by Alfred W. Crosby, *The Columbian Exchange: Biological and Cultural Consequences of 1492* (Westport, Conn., 1972); and *Ecological Imperialism: The Biological Expansion of Europe, 900-1900* (New York, 1986).

light on the ingenuity of merchants and the development of markets. Nevertheless, so the traditional wisdom suggests, trade in luxury goods had limited significance for pre-modern social and economic history for several reasons: it involved a tiny proportion of the populations of producing and consuming societies, it mainly affected political and economic elites, and it did not generate a division of labor or otherwise restructure the economies and societies of trading parties.⁷

Recent research has called much of this received wisdom into question and has suggested that long-distance trade had more important effects than scholars have commonly realized. This research represents several lines of thought. One comes from the perspective of economic anthropology and draws attention to the cultural and political significance of pre-modern trade in luxury commodities. Even though trade in preciousities directly involved only small numbers of people, it involved some very important people. Apart from their economic value, exotic commodities often served as symbols of power, status, and authority. The ability to display them, consume them, or bestow them on others was crucial for the establishment and maintenance of political and social structures. Thus, even when its economic value was small, trade in luxury goods often had large political and social implications. Kingfisher feathers, tortoise shells, and rhinoceros horns might strike modern analysts as commodities of little economic significance. In pre-modern China, however, the rarity of such items conferred on them high value, which ruling elites appropriated as symbols of power, status, and authority. To the extent that trade in exotic items figured in the establishment or maintenance of political authority, it was a very important affair, regardless of its economic significance.⁸

A second line of argument emerges from studies of cross-regional commerce. It suggests that even when long-distance trade had its origins in the exchange of preciousities, it had the potential to expand rapidly and develop into bulk trade affecting large numbers of people rather than just political and economic elites. An example of this sort of development comes from trade in Buddhist paraphernalia between India and China. Buddhism reached China by the second century B.C.E.,

⁷ There are works that take long-distance trade seriously even in pre-modern times: see especially Curtin, *Cross-Cultural Trade in World History*; and C. G. F. Simkin, *The Traditional Trade of Asia* (London, 1968). For several works that in various ways express the view that early long-distance trade was an enterprise of limited significance—and that do so from radically different perspectives—see Wallerstein, *Modern World-System*, 1: 19–21, 39–42; W. W. Rostow, *How It All Began: Origins of the Modern Economy* (New York, 1975), 14–15; Rondo Cameron, *A Concise Economic History of the World: From Paleolithic Times to the Present* (New York, 1989), 32–33, 78, 121–22; and Patricia Crone, *Pre-Industrial Societies* (Oxford, 1989), 22–24, 33–34. In the interests of fairness and precision, I would like to point out that these authors do not absolutely deny the significance of early long-distance trade: Cameron, for example, holds that it helped to integrate the economy of the Mediterranean basin under the Roman empire. In all cases, however, these authors and others convey the clear impression that long-distance trade was not an activity of large economic significance until modern times.

⁸ See Jane Schneider, “Was There a Pre-capitalist World System?” *Peasant Studies*, 6 (1977): 20–29; and Robert McC. Adams, “Anthropological Perspectives on Ancient Trade,” *Current Anthropology*, 15 (1974): 239–58. For broader analyses along similar lines, see also Mary W. Helms, *Ulysses’ Sail: An Ethnographic Odyssey of Power, Knowledge, and Geographical Distance* (Princeton, N.J., 1988); and Nicholas Thomas, *Entangled Objects: Exchange, Material Culture, and Colonialism in the Pacific* (Cambridge, Mass., 1991). On the political significance of long-distance trade in early Southeast Asia, see Kenneth R. Hall, *Maritime Trade and State Development in Early Southeast Asia* (Honolulu, 1985). On the taste for exotic commodities and the uses made of them in pre-modern China, see especially two volumes of Edward H. Schafer, *The Golden Pheasant of Samarkand: A Study of Tang Exotics* (Berkeley, Calif., 1963); and *The Vermilion Bird: Tang Images of the South* (Berkeley, 1967).

but it did not become a popular faith there until the late fifth and sixth centuries C.E. The growth of a Chinese Buddhist community generated high demand for exotic commodities such as coral, pearls, gems, crystals, semi-precious stones, glass, incense, and ivory, as well as symbolic items (such as statues or representations of the Wheel of the Law) used in Buddhist rituals or as decorations for stupas and monasteries. By the sixth century C.E., this demand had stimulated a high volume of trade in commodities that during earlier centuries had figured as luxury goods traded only in small quantities.⁹ Quite apart from the cultural and political significance of the spread of Buddhism to China, this trade had important economic effects in both India and China.

A third line of research suggests that pre-modern trade occasionally became voluminous enough to push large regions toward economic integration and thus to shape economic and social structures across the boundary lines of societies and cultural regions. The Indian Ocean basin represents the most important case in which trade encouraged the economic integration of an especially large region in pre-modern times. By the seventh century C.E., large numbers of Persian merchants, soon followed by Arabs, ventured throughout the Indian Ocean basin from East Africa to India and beyond to Southeast Asia and China. By the tenth century, trade generated enormous revenues in port cities throughout the basin. More important, this trade was by no means limited to luxury goods but also involved heavy and bulky commodities. Cargoes of dates, sugar, building supplies, coral, timber, and steel crossed the ocean in large quantities. (Often, they did double duty, serving both as ballast during voyages and as marketable commodities in port cities.) As trade linked the lands of the Indian Ocean basin, comparative advantages encouraged the organization of large and sophisticated regional industries: silk textiles in China and India, cotton textiles in India, ceramics in China, steel and iron production in China, India, and Southwest Asia, and the breeding of horses, cattle, and camels by nomadic and pastoral peoples in Central Asia, Southwest Asia, and Arabia. Thus, far from being an economically insignificant affair involving exchanges of luxuries between elites, long-distance trade in the Indian Ocean helped structure economies and societies in the various regions of the Indian Ocean basin.¹⁰

When pre-modern societies engaged in long-distance trade on a regular and systematic basis, trade routes not only facilitated the transportation and exchange of commodities, they also served as avenues of technological and biological

⁹ It is impossible to calculate the value of this trade, but literary and archaeological sources make it clear that by the sixth century C.E., trade in Buddhist paraphernalia had become quite large. See Wang Gungwu, *The Nanhai Trade: A Study of the Early History of Chinese Trade in the South China Sea* (Kuala Lumpur, 1958); and Liu Xinru, *Ancient India and Ancient China: Trade and Religious Exchanges, A.D. 1-600* (Delhi, 1988).

¹⁰ On the economic integration of the Indian Ocean basin, see especially two recent volumes of K. N. Chaudhuri, *Trade and Civilisation in the Indian Ocean: An Economic History from the Rise of Islam to 1750* (Cambridge, 1985); and *Asia before Europe: Economy and Civilisation of the Indian Ocean from the Rise of Islam to 1750* (Cambridge, 1990). See also George F. Hourani, *Arab Seafaring in the Indian Ocean in Ancient and Early Medieval Times* (Princeton, N.J., 1951); the first volume, with four additional volumes projected, of André Wink, "*Al-Hind*": *The Making of the Indo-Islamic World* (Leiden, 1990); and an article in which Wink outlines his larger vision of the Indian Ocean basin, "*Al-Hind*": India and Indonesia in the Islamic World-Economy, c. 700-1800 A.D., *Itinerario*, 12 (1988): 33-72.

diffusions. In some cases, these diffusions profoundly influenced the development of societies engaged in trade, which suggests a fourth reason for the significance of long-distance trade in pre-modern times. Technologies involving transportation, metallurgy, weaponry, animal energy, and natural sources of power all diffused throughout most of Eurasia and Africa, largely along trade routes. Meanwhile, long-distance trade and campaigns of imperial expansion sometimes combined to encourage biological diffusions in pre-modern times. During the half-millennium from about 600 to 1100 C.E., for example, Islamic conquests and trade in the Islamic world sponsored a remarkable diffusion of food and industrial crops throughout much of the Eastern hemisphere, resulting in population growth and increased production from China to Europe and North Africa. Similarly, during the era of the ancient silk roads and again during the age of the Mongol empires, traffic over long-distance trade networks facilitated the spread of lethal pathogens beyond their original homes, leading to disease epidemics in much of Eurasia.¹¹

Finally, besides its political, social, economic, and biological significance, long-distance trade also had implications for cultural and religious change in pre-modern times. When merchants traded regularly across the boundary lines of societies and cultural regions, they established diaspora communities and brought cultural and religious authorities from their homelands into those communities for their own purposes. Their cultural and religious traditions sometimes attracted interest among their hosts, particularly when foreign merchants came from a well-organized society possessing the capacity to provide significant political, diplomatic, military, or economic benefits for their hosts. In several notable cases, the voluntary association of individuals with the cultural and religious traditions of foreign merchants helped to launch processes of large-scale conversion, by which societies made a place for foreign cultural or religious values. Merchants played prominent roles, for example, in the processes that led to the establishment of Hinduism and Buddhism in Southeast Asia, of Buddhism, Manichaeism, and Nestorian Christianity in Central Asia, and of Islam in Southeast Asia and sub-Saharan Africa.¹²

Thus recent research has made a persuasive case for the significance of long-distance trade, even in pre-modern times. Pre-modern trade did not wield an influence approaching that of cross-cultural commerce in modern and contemporary times. In combination with processes of mass migration and imperial expansion, however, it is clear that long-distance trade had strong potential to shape historical experiences across the boundary lines of societies and cultural regions even in pre-modern times. To the extent that mass migration, imperial expansion, and long-distance trade engaged peoples of different societies in significant

¹¹ On the diffusion of technologies, see Arnold Pacey, *Technology in World Civilization: A Thousand-Year History* (Oxford, 1990); Richard W. Bulliet, *The Camel and the Wheel* (Cambridge, Mass., 1975); and Lynn White, Jr., *Medieval Technology and Social Change* (Oxford, 1962). On biological diffusions, see McNeill, *Plagues and Peoples*; Crosby, *Ecological Imperialism*; Andrew M. Watson, *Agricultural Innovation in the Early Islamic World: The Diffusion of Crops and Farming Techniques, 700–1100* (Cambridge, 1983); and Lynda N. Shaffer, "Southernization," *Journal of World History*, 5 (1994): 1–21.

¹² See Jerry H. Bentley, *Old World Encounters: Cross-Cultural Contacts and Exchanges in Pre-Modern Times* (New York, 1993), which examines cases of conversion encouraged by the voluntary association of host peoples with the cultural and religious traditions of foreign merchants.

cross-cultural interactions, these interactions might serve as a basis for the periodization of world history in pre-modern as well as modern times.

The remainder of this essay will outline a periodization of world history consisting of six major eras distinguished principally by differing dynamics of cross-cultural interactions that worked their effects across the boundary lines of societies and cultural regions. The six eras are: an age of early complex societies (3500–2000 B.C.E.), an age of ancient civilizations (2000–500 B.C.E.), an age of classical civilizations (500 B.C.E.–500 C.E.), a post-classical age (500–1000 C.E.), an age of transregional nomadic empires (1000–1500 C.E.), and a modern age (1500 C.E. to the present).

CROSS-CULTURAL INTERACTIONS began to influence human affairs from the earliest days of history. Human groups embarked on long-distance travels almost as soon as *Homo sapiens sapiens* emerged as a species some 35,000 to 40,000 years ago. By about 15,000 B.C.E., humans had spread to almost all of the earth's habitable regions. By analyzing the characteristics and distribution of language families, blood types, and material remains, scholars have been able to trace the prehistoric movements of some peoples with remarkable precision.¹³ Although surviving evidence does not permit insights into the experiences of migrating peoples, their travels certainly led them into cross-cultural encounters even in prehistoric times. Widely spread tools, weapons, and deities in particular suggest communications across long distances by prehistoric peoples.¹⁴

Beginning in the late fifth millennium B.C.E., a series of innovations in transportation technology facilitated the establishment of links between human societies. About 4300 B.C.E., humans first domesticated horses, and by 4000 B.C.E., inhabitants of the Ukrainian Sredni Stog culture had probably begun to ride their horses. Beginning about the mid-fourth millennium B.C.E., Mesopotamians and Egyptians constructed seaworthy sailing vessels, enabling them to ply the waters of the Persian Gulf, Arabian Sea, Red Sea, and Mediterranean Sea. During the same era, wheeled carts and wagons appeared in Mesopotamia and the steppe region of Ukraine and southern Russia.¹⁵

Improving transportation technologies underlay cross-cultural interactions during the centuries between about 3500 and 2000 B.C.E. This first period of global history, the age of early complex societies, witnessed the establishment of sedentary agricultural societies in Mesopotamia, Egypt, India, and China. Yet these societies did not develop in isolation. Mesopotamians and Egyptians traded with each other at least by 3500 B.C.E., and a large body of archaeological evidence survives to show

¹³ Irving Rouse, *Migrations in Prehistory: Inferring Population Movement from Cultural Remains* (New Haven, Conn., 1986). See also David W. Anthony, "Migration in Archeology: The Baby and the Bathwater," *American Anthropologist*, 92 (1990): 895–914.

¹⁴ See Robert J. Wenke, *Patterns in Prehistory: Humankind's First Three Million Years*, 3d edn. (New York, 1990); and two works of Marija Gimbutas, *The Goddesses and Gods of Old Europe, 6500–3500 B.C.: Myths and Cult Images*, updated edn. (Berkeley, Calif., 1982); and *The Civilization of the Goddess: The World of Old Europe*, Joan Marler, ed. (San Francisco, 1991).

¹⁵ David W. Anthony and Dorcas R. Brown, "The Origins of Horseback Riding," *Antiquity*, 65 (1991): 22–38; Lionel Casson, *The Ancient Mariners: Seafarers and Sea Fighters of the Mediterranean in Ancient Times*, 2d edn. (Princeton, N.J., 1991).

that, during the third and second millennia B.C.E., trade passed throughout the region from Egypt, Syria, and Anatolia in the west to Afghanistan and the Indus River valley in the east. Trade was especially important for Sumer in southern Mesopotamia, a land lacking natural resources. In order to establish and maintain their complex society, Sumerians traded textiles and grain for luxury goods such as lapis lazuli, which came from as far away as Afghanistan, as well as raw materials such as copper and tin. Cultural exchanges inevitably accompanied commercial transactions: it is likely that Egyptians adopted art motifs, boat designs, mud-brick construction, and writing from Mesopotamians.¹⁶ China had no direct contact with agricultural societies to the west, but nomadic and migratory peoples provided indirect links between the regions of Eurasia.

For purposes of global periodization, it bears pointing out that during this age of early complex societies, cross-cultural interactions had ramifications that went far beyond the experiences of Mesopotamia and Egypt. The early complex societies generated states and social structures that depended on cross-cultural interaction. During this first age of global history, for example, migration and trade promoted the diffusion of horse domestication and bronze metallurgy, both of which influenced the development of states and societies from China to Egypt.

The earliest migrations of Indo-European peoples took place during the age of early complex societies, and they helped to diffuse horse domestication and related transportation technologies throughout much of Eurasia. From their homeland—probably in the steppe regions of modern-day Ukraine and southern Russia—some Indo-Europeans ventured east to Siberia and the Tarim Basin as early as the fourth millennium B.C.E., while others migrated west to Anatolia and Eastern Europe soon after 3000 B.C.E. Stunning evidence of the eastern migrations has recently come to light in the form of desiccated but remarkably well-preserved corpses of Caucasian individuals unearthed in China's Xinjiang province.¹⁷ Indo-European migrants owed their mobility to their horses and wheeled vehicles, and they introduced their technologies of transportation to the lands they entered. It is possible or even likely that violence accompanied the migrations and that horses helped the Indo-Europeans establish themselves forcibly in new lands. In any case, the diffusion of horses and related transportation technologies soon became crucial for purposes of

¹⁶ See Casson, *Ancient Mariners*; Shereen Ratnagar, *Encounters: The Westerly Trade of the Harappa Civilization* (Delhi, 1981); Philip L. Kohl, "The Balance of Trade in Southwestern Asia in the Third Millennium B.C.," *Current Anthropology*, 19 (1978): 463–75; Kohl, "The Use and Abuse of World Systems Theory: The Case of the 'Pristine' West Asian State," in C. C. Lamberg-Karlovsky, ed., *Archaeological Thought in America* (Cambridge, 1989), 218–40; and P. R. S. Moorey, "On Tracking Cultural Transfers in Prehistory: The Case of Egypt and Lower Mesopotamia in the Fourth Millennium B.C.," in Michael Rowlands, Mogens Larsen, and Kristian Kristiansen, eds., *Centre and Periphery in the Ancient World* (Cambridge, 1987), 36–46.

¹⁷ The earliest corpses so far studied date from about 2000 B.C.E., and their material culture included horses, wheeled carts, and fabrics featuring weaves similar to those associated with Indo-European communities in Northern Europe. Detailed studies of the desiccated corpses are not yet available, but for a preliminary report, see Victor H. Mair, "Prehistoric Caucasoid Corpses of the Tarim Basin," *Journal of Indo-European Studies*, 23 (1995): 281–307. See also the series of articles following Mair's introductory essay in the same issue of the journal and two short articles elsewhere: Victor H. Mair, "Mummies of the Tarim Basin," *Archaeology*, 48 (March–April 1995): 28–35; and Evan Hadingham, "The Mummies of Xinjiang," *Discover*, 15 (April 1994): 68–77. On the Indo-European migrations in general, see J. P. Mallory, *In Search of the Indo-Europeans: Language, Archaeology, and Myth* (London, 1989).

establishing and maintaining states and social hierarchies in the early complex societies.¹⁸

Considerable debate revolves around the origins of bronze technology and particularly the question of whether it was the result of a single, unique discovery or of multiple, independent inventions.¹⁹ In either case, bronze technology certainly diffused from its point(s) of origin. Ruling elites sought to control the production of bronze weaponry, which enabled them to build and maintain states. Meanwhile, elites also prized bronze utensils, since their high cost indicated high social status. The search for relatively rare deposits of copper and tin ores stimulated trade with neighboring peoples, as well as military campaigns designed to establish control over the deposits. Thus, as in the case of horses and related transportation technologies, the diffusion of bronze metallurgy had significant political and social implications for the early complex societies.

By about 2000 B.C.E., spoke-wheeled chariots had appeared on the Eurasian steppes.²⁰ These high-performance vehicles had political and military implications that inaugurated a second era of global history, the age of ancient civilizations, extending from about 2000 to 500 B.C.E. After about 1700 B.C.E., techniques of chariot warfare diffused across Eurasia and into North Africa. After about 1100 B.C.E., the technology of iron metallurgy also diffused from its homeland of Anatolia throughout Eurasia and much of Africa. Migrations of Bantu peoples resulted in the spread of iron metallurgy to the great lakes region of East Africa and southern Nigeria by the sixth or seventh century B.C.E., possibly as early as the ninth century B.C.E.²¹ In Mesopotamia, Egypt, and China, conquerors relied on chariot-mounted

¹⁸ The nature and results of the Indo-European migrations are matters of ongoing debate. For two contrasting and controversial views, see Colin Renfrew, *Archaeology and Language: The Puzzle of Indo-European Origins* (New York, 1988); and Marija Gimbutas, "The Indo-Europeanization of Europe: The Intrusion of Steppe Pastoralists from South Russia and the Transformation of Old Europe," *Word*, 44 (1993): 205–22. For two judicious navigations through the literature on Indo-Europeans, see Mallory, *In Search of the Indo-Europeans*; and David W. Anthony, "The Archaeology of Indo-European Origins," *Journal of Indo-European Studies*, 19 (1991): 193–222.

¹⁹ Bronze technology almost certainly diffused from Southwest Asia, where it appeared in the late fourth millennium B.C.E., to the Mediterranean basin and the Indus River valley. Since there are very few signs of bronze metallurgy in China before the second millennium B.C.E., many scholars have thought that bronze technology also diffused to China. See two articles by Cyril Stanley Smith, "Bronze Technology in the East," in Mikulas Teich and Robert Young, eds., *Changing Perspectives in the History of Science: Essays in Honour of Joseph Needham* (London, 1973), 21–32; and "The Early History of Casting, Molds, and the Science of Solidification," in Smith's collected essays, *A Search for Structure: Selected Essays on Science, Art, and History* (Cambridge, Mass., 1981), 127–73. For an argument that bronze technology in China was the result of independent invention, see Ping-ti Ho, *The Cradle of the East: An Inquiry into the Indigenous Origins of Techniques and Ideas of Neolithic and Early Historic China, 5000–1000 B.C.* (Hong Kong, 1975), 177–221. K. C. Chang, *The Archaeology of Ancient China*, 4th edn. (New Haven, Conn., 1986), discusses several Chinese bronze artifacts from the third millennium B.C.E. Since he does not directly address the question of diffusion and independent invention, however, Chang seems to have softened his position since the third edition of his work (New Haven, 1977), 274–79, which argued explicitly for the independent invention of Chinese bronze metallurgy. The relevant volume of Joseph Needham, *Science and Civilisation in China*, 6 vols. (Cambridge, 1954–), has not yet appeared, but it will undoubtedly shed light on the origins and spread of bronze throughout Eurasia.

²⁰ For a preliminary report on the earliest known chariots, see David W. Anthony and Nikolai B. Vinogradov, "Birth of the Chariot," *Archaeology*, 48 (March–April 1995): 36–41.

²¹ Theodore A. Wertime and James D. Muhly, eds., *The Coming of the Age of Iron* (New Haven, Conn., 1980); Jan Vansina, *Paths in the Rainforests: Toward a History of Political Tradition in Equatorial Africa* (Madison, Wis., 1990), 47–69, esp. 58–61.

warriors, and later on iron weapons as well, to build powerful imperial states such as the Babylonian and Assyrian empires in Mesopotamia, the New Kingdom in Egypt, and the Shang and Zhou dynasties in China.

Improving technologies of transportation underwrote a noticeable expansion of cross-cultural trade during the age of ancient civilizations. China was too distant to trade directly with the other ancient civilizations, although nomadic peoples linked China indirectly to other Eurasian societies. Further west, however, trade links proliferated. During the centuries from about 2000 to 1600 B.C.E., for example, Assyrian merchants organized a trading network that connected lands as distant as Afghanistan, Persia, Mesopotamia, Arabia, Syria, and Anatolia. Major products exchanged included tin from Afghanistan, grain and textiles from Mesopotamia, copper from Arabia, wood and wine from Syria, and copper, silver, and gold from Anatolia. The ancient civilizations conducted trade on an impressive scale: one document mentions a single shipment of eighteen tons of copper from Oman in Arabia to Mesopotamia, and scholars have calculated that over the period from approximately 1810 to 1765 B.C.E., Assyrian merchants transported about eighty tons of imported tin and 100,000 textiles manufactured in their home city of Assur (in northern Mesopotamia) to Kanesh (in Anatolia), returning to Assur with some ten tons of silver.²²

Migration and trade also facilitated cultural exchanges during the age of ancient civilizations. Chinese ruling elites of the Western Zhou dynasty (1027–771 B.C.E.) seem to have enlisted Persian magi as religious and ritual specialists.²³ Meanwhile, after about 1050 B.C.E., alphabetic writing spread from Phoenicia, where scribes used twenty-two consonants to represent individual sounds, to Greece, where vowels also found places in the alphabet. Within the next few centuries, alphabetic writing spread along trade routes throughout the Mediterranean basin and Southwest Asia and beyond to northern India.

Cross-cultural interactions also had effects that went beyond the ancient civilizations themselves. From a long-term point of view, one of the most important processes of this era was the expansion of the zone of cultivation. During the age of ancient civilizations, agriculture spread well beyond the heartlands of early complex societies and took root in Anatolia, Persia, Europe, the Ganges River valley, southern China, parts of Central Asia, and much of sub-Saharan Africa, among other places. Expansion of the zone of cultivation had dramatic effects on world population. Historical demographers estimate that in 3000 B.C.E., human numbers stood at about 14 million. By 2000 B.C.E., they had almost doubled to 27 million; by 1000 B.C.E., they had reached 50 million; and by 500 B.C.E., at the end of the age of ancient civilizations, they had doubled again to 100 million.²⁴ Meanwhile,

²² Mogens Trolle Larsen, "Commercial Networks in the Ancient Near East," in Rowlands, Larsen, and Kristiansen, *Centre and Periphery in the Ancient World*, 47–56; John Gledhill and Mogens T. Larsen, "The Polanyi Paradigm and a Dynamic Analysis of Archaic States," in Colin Renfrew, Michael J. Rowlands, and Barbara Abbot Segraves, eds., *Theory and Explanation in Archaeology: The Southampton Conference* (New York, 1982), 197–229; Kohl, "Use and Abuse of World Systems Theory"; and Philip L. Kohl, "The 'World-Economy' of West Asia in the Third Millennium B.C.," in M. Taddei, ed., *South Asian Archaeology, 1977*, 2 vols. (Naples, 1979), 1: 55–85.

²³ Victor Mair, "Old Sinitic *M^häg, Old Persian *Maguš*, and English 'Magician,'" *Early China*, 15 (1990): 27–47.

²⁴ Colin McEvedy and Richard Jones, *Atlas of World Population History* (Harmondsworth, 1978),

as the zone of cultivation expanded, peoples on the margins of agricultural society either became absorbed into the cultivators' society or took up a nomadic lifestyle as a specialized adaptation to agriculture and the challenges that it posed.²⁵ When they migrated in large numbers, nomadic or semi-nomadic peoples profoundly influenced settled states and societies. During the age of ancient civilizations, for example, continuing migrations of Indo-European peoples transformed societies from India to the British Isles. Thus, both by increasing human numbers in settled societies and by encouraging the formation of nomadic societies, expansion of the zone of cultivation shaped the experiences of human communities throughout the Eastern hemisphere.

A third period of global history, the age of classical civilizations, unfolded during the millennium from about 500 B.C.E. to 500 C.E. The classical civilizations differed from the early complex societies and the ancient civilizations in several important ways. Historians have long associated classical civilizations with the development of cultural and religious traditions, such as Confucianism, Buddhism, Greek philosophy, and Christianity, that influenced beliefs and values in their respective societies over the long term. The classical civilizations also organized states on a much larger scale than had earlier societies: the Han dynasty in China embraced far more territory than the Shang and Zhou dynasties, the Achaemenid dynasty in Persia dwarfed earlier Mesopotamian states, the Mauryan dynasty absorbed numerous regional kingdoms in India, and the Roman empire brought all the lands of the Mediterranean basin under its control. As a result of their larger scale of organization, the states generated by the classical civilizations pacified much larger territories than had their predecessors.

In addition, improving networks and technologies of transportation quickened the pace of cross-cultural interactions. The classical civilizations all invested considerable resources in the construction of roads and bridges: while the results of Roman engineering are best known today, Persian, Chinese, and Indian states also built extensive transportation networks. These construction projects enabled classical civilizations to extend administrative oversight and to project military power more effectively than their predecessors to the far corners of their realms. Meanwhile, camels became increasingly important transport animals during classical times. Though domesticated shortly after 3000 B.C.E. and used as pack animals from at least the thirteenth century B.C.E., camels did not become prominent in long-distance trade and transportation networks until the invention of an efficient saddle between about 500 and 100 B.C.E. Thereafter, use of camels spread rapidly throughout much of Asia and Africa.²⁶ Improving networks and technologies of transportation encouraged economic development and economic integration within

342–51. On the Bantu migrations and their role in spreading agriculture, see Vansina, *Paths in the Rainforests*, 47–69; and S. Lwanga-Lunyiigo and J. Vansina, "The Bantu-Speaking Peoples and Their Expansion," in J. Ki-Zerbo, et al., eds., *General History of Africa*, 7 vols. (Berkeley, Calif., 1981–), 3: 140–62.

²⁵ Apart from the classic work of Owen Lattimore, *Inner Asian Frontiers of China*, 2d edn. (New York, 1951), see also Anatoly M. Khazanov, *Nomads and the Outside World*, J. Crookendon, trans., 2d edn. (Madison, Wis., 1994).

²⁶ See Bulliet, *Camel and the Wheel*, 28–110; and William H. McNeill, "The Eccentricity of Wheels, or Eurasian Transportation in Historical Perspective," *AHR*, 92 (December 1987): 1111–26.

the precincts of the classical civilizations, and they placed these civilizations in a strong position to take part in trade and exchange relationships with other lands.

The classical civilizations began to emerge as early as the mid-sixth century B.C.E., with the appearance of the Achaemenid dynasty in Persia. Both the volume of cross-cultural trade and the intensity of cross-cultural interactions increased particularly during Hellenistic times, as classical civilizations in Persia and the Mediterranean basin engaged each other politically, militarily, economically, and culturally. Prominent venues of cross-cultural interaction were the many cities established by the conqueror Alexander in Persia and Bactria. Originally populated by soldiers and administrators, these cities soon attracted Greek merchants and bankers, who linked them to a Mediterranean basin already moving toward economic integration. Graphic evidence of cross-cultural interaction came from the school of Buddhist art that emerged in the north Indian kingdom of Gandhara: Hellenistic communities in Bactria attracted Mediterranean artists, who influenced the development of Buddhist art.²⁷ Meanwhile, Bactria and the north Indian commercial center at Taxila became busy crossroads of international traffic. This pattern continued after the death of Alexander. The Seleucids pacified and controlled trade routes between Bactria and the Mediterranean, while the Ptolemies controlled trade routes south to Nubia, also clearing the Red Sea of pirates and constructing ports such as Berenice. As a result of substantial investments in military campaigns and policing activities, then, the Hellenistic states established a solid foundation for cross-cultural trade and interaction.

A high point of cross-cultural interaction during classical times came with the elaboration of the intricate and well-articulated network of the so-called silk roads, both terrestrial and maritime. The establishment and maintenance of these trade routes depended on states such as the Han, Kushan, Parthian, and Roman empires, which pacified vast stretches of Eurasia and reduced the risks involved in long-distance trade. The terrestrial silk roads enabled commerce to move from China through Central Asia and Persia to the Mediterranean basin. The sea lanes linked lands from South China, through Southeast Asia, Ceylon, and India, to Persia and East Africa. One sea lane may have enabled Malayan mariner-merchants to sail directly from the islands of Southeast Asia to Madagascar and ports in East Africa. From the Persian Gulf, the Red Sea, and the East African ports, it was a simple matter to gain access to the Mediterranean basin.²⁸ The volume of trade conducted over the silk roads in classical times was not impressive by the standards of later ages. By the standards of earlier eras, however, it was quite large, though

²⁷ See Jean W. Sedlar, *India and the Greek World: A Study in the Transmission of Culture* (Totowa, N.J., 1980); and Mortimer Wheeler, *Flames over Persepolis, Turning-Point in History* (New York, 1968). See also Frank L. Holt, *Alexander the Great and Bactria: The Formation of a Greek Frontier in Central Asia* (Leiden, 1989).

²⁸ On the general patterns of trade during classical times, see Curtin, *Cross-Cultural Trade in World History*, 60–108; Simkin, *Traditional Trade of Asia*, 1–49; Manfred G. Raschke, “New Studies in Roman Commerce with the East,” in H. Temporini and W. Haase, eds., *Aufstieg und Niedergang der römischen Welt* (Berlin, 1978), 2: 9: 2, 604–1361; Ying-shih Yü, *Trade and Expansion in Han China: A Study in the Structure of Sino-Barbarian Economic Relations* (Berkeley, Calif., 1967); and Vimala Begley and Richard Daniel De Puma, eds., *Rome and India: The Ancient Sea Trade* (Madison, Wis., 1991). On the terrestrial and maritime routes of the silk roads, see Wang, *Nanhai Trade*; Lionel Casson, ed., *The “Periplus Maris Erythraei”* (Princeton, N.J., 1989); and J. Innes Miller, *The Spice Trade of the Roman Empire, 29 B.C. to A.D. 641* (Oxford, 1969).

precision about its volume is impossible. To mention the most important commodities, it involved silk from China, spices and gems from Southeast Asia and India, horses and jade from Central Asia, aromatics from Arabia, and manufactured, value-added products and bullion from the Mediterranean basin.

Apart from its volume, trade over the silk roads during classical times was important for at least four reasons. In the first place, it had enormous significance for elites in lands participating in cross-cultural trade. Central Asian horses were crucial to Chinese military forces, and Chinese silks became essential apparel for fashionable women in Rome. Furthermore, political elites benefited from trade by controlling it and taxing it. In the second place, traffic over the trade routes facilitated the spread of religious and cultural traditions. The early diffusions of Hinduism, Buddhism, and Christianity—not to mention the explosive expansion of Manichaeism—were processes that took excellent advantage of the trade routes of the classical era.²⁹

In the third place, trade routes served not only as commercial and cultural highways but also as avenues for the dissemination of pathogens, which in turn caused destructive epidemics of disease. During the second and third centuries C.E., epidemic diseases reduced the populations of China and the Mediterranean basin by about 25 percent and quite likely plagued other lands as well. This demographic decline aggravated existing political and economic problems, thus weakening the classical empires themselves, while also undermining the economic activity that supported long-distance trade.³⁰ Finally, long-distance trade strengthened nomadic peoples of Central Asia to the point that they posed a threat to settled societies throughout Eurasia. Nomadic peoples transported many of the commodities that traveled by caravan over the silk roads of Central Asia, and they prospered accordingly. They not only profited from the carriage and protection services that they provided but also gained access to tools, weapons, and technologies that strengthened them militarily. Indeed, beginning about the third century C.E., nomadic peoples toppled states in much of settled, agricultural Eurasia.³¹ Thus, while long-distance trade helped in the establishment and maintenance of the classical empires, it also led to their decline and dissolution as well.

The collapse of the Han and Roman empires brought this age of classical civilizations to an end. They had served as the political and economic anchors of long-distance trade and exchange networks across Eurasia, and there were no immediate successors to provide police services and maintain the stability that favored long-distance trade. The Byzantine and Sassanid empires survived the

²⁹ See Bentley, *Old World Encounters*, 29–66; Sedlar, *India and the Greek World*; James Heitzman, *The Origin and Spread of Buddhist Monastic Institutions in South Asia, 500 B.C.–300 A.D.* (Philadelphia, 1980); Heitzman, “Early Buddhism, Trade and Empire,” in Kenneth A. R. Kennedy and Gregory L. Possehl, eds., *Studies in the Archaeology and Palaeoanthropology of South Asia* (New Delhi, 1984), 121–37; E. Zürcher, *The Buddhist Conquest of China*, 2 vols. (Leiden, 1959–72); and Samuel N. C. Lieu, *Manichaeism in the Later Roman Empire and Medieval China*, 2d edn. (Tübingen, 1992).

³⁰ See McNeill, *Plagues and Peoples*, 106–47. For the populations of China and Europe, see McEvedy and Jones, *Atlas of World Population History*, 18–39, 166–75.

³¹ For an intriguing analysis showing how Chinese wealth strengthened nomadic peoples, see Thomas J. Barfield, *The Perilous Frontier: Nomadic Empires and China* (Cambridge, Mass., 1989). See also Barry Cunliffe, *Greeks, Romans and Barbarians: Spheres of Interaction* (New York, 1988); Patrick J. Geary, *Before France and Germany: The Creation and Transformation of the Merovingian World* (New York, 1988); and the classic work of Frederick J. Teggart, *Rome and China: A Study of Correlations in Historical Events* (Berkeley, Calif., 1939).

collapse of the classical world, and, despite their wars, a good deal of trade passed between the two states. Beyond Byzantium and Persia, however, the disappearance of the classical empires brought a temporary end to large-scale political organization. Long-distance trade became a riskier proposition than during earlier centuries, and demographic losses and shrinking economies also contributed to the decline of the silk roads trading network. During the two centuries following the fall of the Han and Roman empires, cross-cultural interaction did not entirely disappear, but it became much less prominent than during the classical era.

Beginning in the late sixth century C.E., there was a revival of cross-cultural interaction. The result was a fourth era of global history, which for lack of a better term I call the post-classical age, extending from about 500 to 1000 C.E. As in the age of classical civilizations, cross-cultural interaction during the post-classical era depended on political stability and economic stimulus provided by well-organized and wealthy states. In post-classical times, the political and economic foundations of cross-cultural interaction were the Tang empire in China, the Abbasid empire in Southwest Asia, and the Byzantine empire in the eastern Mediterranean basin. All three states maintained order over large territories, and they also generated powerful economies. As a result, the three empires served as political and economic anchors of the post-classical world order.

In several ways, cross-cultural interaction brought the various regions of the post-classical world into communication with each other. One process sponsoring cross-cultural interaction was the round of imperial expansion that led to the establishment of the Tang and Abbasid states. Tang expansion engaged Chinese in encounters most notably with Southeast Asian and Central Asian peoples, with political, economic, and cultural results for all parties concerned.³² Meanwhile, the Abbasid state represented the early expansion of Islam beyond its Arabian homeland and the engagement of Islam with older cultural traditions. The Byzantine state was not the result of a new imperial creation so much as the continuation of the classical Roman empire, but the political realities of empire forced it, too, into interaction with other regions, particularly with the Abbasid realm and the northern lands of Russia and Scandinavia. Beyond the Tang, Abbasid, and Byzantine experiences, imperial expansion occasioned processes of cross-cultural interaction in other lands during the post-classical era. The Carolingian empire brought Christian Mediterranean society into confrontation with that of Germanic Northern Europe, while the Tibetan empire mounted a temporary but sharp challenge to Tang China.

As in the classical era, trade worked alongside imperial expansion to encourage cross-cultural interaction during post-classical times. Political stability provided by the Tang, Abbasid, and Byzantine states encouraged merchants to revive the trading network of the silk roads. Caravan trade once again crossed Central Asia between China and the Mediterranean basin, while maritime trade linked the regions of the Indian Ocean basin. In some ways, then, long-distance commerce in post-classical times depended on a reconstitution of the ancient silk roads trading network.³³

³² See the volumes of Edward H. Schafer cited earlier: *The Golden Peches of Samarkand* and *The Vermilion Bird*.

³³ On long-distance trade in this era, see Curtin, *Cross-Cultural Trade in World History*, 90–108;

In several respects, however, patterns of long-distance trade in post-classical times differed from those of the earlier era. In the first place, Western Europe participated in Eurasian trade in more indirect fashion than before. During the centuries from 500 to 1000 C.E., Western Europeans engaged in a limited amount of direct trade with the Byzantine realm and Islamic states in the Mediterranean basin. Recent studies have shown, however, that Western Europeans continued to participate in the larger commercial life of Eurasia by way of indirect trade routed through Scandinavia and Russia.³⁴

In the second place, the volume of long-distance trade was much greater during the post-classical era than during the classical age. While it is impossible to calculate the value of that trade, it is clear that its volume dwarfed that which passed over the silk roads of classical times. Trade passing overland benefited from the organization of nomadic peoples, who provided transportation and protection services that facilitated commerce through Central Asia. Particularly important in this connection were the Uighurs, who from the mid-seventh to the mid-eighth century organized and controlled trade routes between China and the Byzantine empire. The Uighurs expropriated their fair share (at the very least) of the trade through Central Asia. Their services, however, helped to boost dramatically the volume of overland trade conducted during the post-classical era. In its turn, a high volume of long-distance trade signaled an increased tempo of cross-cultural interaction.³⁵ Meanwhile, maritime commerce in the Indian Ocean basin burgeoned during the post-classical era. Trade linking South China with Ceylon and India grew to such proportions that the kings of Srivijaya, based at Palembang in southeastern Sumatra, organized an island-based empire that for much of the time between the seventh and thirteenth centuries controlled commerce through Southeast Asian waters. Chinese mariners traveled as far west as Ceylon and India, while Indian, Persian, and Arabian merchants ventured throughout the Indian Ocean basin and beyond to China. During the eighth century, the Chinese port city of Guangzhou had a population estimated at 200,000, including large numbers of merchants from Southeast Asia, India, Persia, and Arabia. In the year 879, the Tang rebel Huang Chao sacked Guangzhou and reportedly slaughtered 120,000 foreigners during his brief reign of terror there.³⁶ Even more than in the case of overland trade, then, maritime commerce expanded to large proportions during the post-classical era.

In the third place, the regions of sub-Saharan East and West Africa became much

Simkin, *Traditional Trade of Asia*, 49–124; Wang, *Nanhai Trade*; Hourani, *Arab Seafaring in the Indian Ocean*; L. Rabinowitz, *Jewish Merchant Adventurers: A Study of the Radanites* (London, 1948); and the two volumes of Chaudhuri: *Trade and Civilisation in the Indian Ocean* and *Asia before Europe*.

³⁴ See especially Richard Hodges and David Whitehouse, *Mohammed, Charlemagne and the Origins of Europe: Archaeology and the Pirenne Thesis* (Ithaca, N.Y., 1983).

³⁵ On the Uighurs, see Colin Mackerras, *The Uighur Empire according to the T'ang Dynastic Histories* (Columbia, S.C., 1972); Barfield, *Perilous Frontier*, 131–63; and V. Minorsky, "Tamim Ibn Bahr's Journey to the Uighurs," *Bulletin of the School of Oriental and African Studies*, 12 (1948): 275–305. On the silk trade during this era, see Liu Xinru, "Silks and Religions in Eurasia, c. A.D. 600–1200," *Journal of World History*, 6 (1995): 25–48.

³⁶ See George Coedès, *The Indianized States of Southeast Asia*, S. B. Cowing, trans. (Honolulu, 1968), 81–188; O. W. Wolters, *Early Indonesian Commerce: A Study of the Origins of Srivijaya* (Ithaca, N.Y., 1967); Hourani, *Arab Seafaring in the Indian Ocean*; and Chaudhuri's two volumes: *Trade and Civilisation in the Indian Ocean* and *Asia before Europe*.

more engaged in the larger trading world of the Eastern hemisphere during the post-classical age than in earlier centuries. The maritime commerce of the Indian Ocean basin increasingly drew the port cities of East Africa into the commercial life of the larger world. The coastal cities then became economic magnets that helped structure economic activity in the East African hinterlands.³⁷ Meanwhile, caravan trade across the Sahara desert became more frequent and regular than before, drawing sub-Saharan West Africa into increased commerce with North Africa and the Mediterranean basin, while also laying the groundwork for rulers to found powerful states.³⁸ The full implications of this long-distance trade involving East and West Africa became apparent only in a later age. That trade warrants mention here, however, because it was the commercial dynamic of the post-classical era that brought East and West Africa into the larger trading world. For purposes of this essay, it also bears pointing out that the prominence of East and West Africa in the larger trading world shows that a periodization based on cross-cultural interaction has application well beyond Europe and Asia in pre-modern times. While it does not have the capacity to integrate southern Africa, the Americas, or the Pacific islands into a periodization scheme before modern times, it does make it possible to establish a context for the periodization of almost all the Eastern hemisphere, including large regions of sub-Saharan Africa, as well as North Africa, Europe, and Asia.

Thus processes of imperial expansion and long-distance trade helped to bring the various regions of the Eastern hemisphere into sustained interaction with each other during the post-classical era. Alongside their political and economic consequences, two results of these interactions warrant mention: the diffusion of agricultural crops and the spread of religious and cultural traditions. The spread of early ripening rice from Southeast Asia to China underwrote increased agricultural production and demographic growth in East Asia. Even more important diffusions took place in the Islamic world, from India to Iberia and North Africa. As Islamic administrators, soldiers, and merchants traveled throughout this vast zone, they transported plants from one region to another. Most diffusions went from India to Southwest Asia, North Africa, Southern Europe, and the Mediterranean islands. The transplants included staple crops such as sugar cane, rice, and new varieties of wheat; vegetable crops such as spinach, artichokes, and eggplants; fruit crops such as oranges, lemons, limes, bananas, mangoes, and melons; and industrial crops such as cotton, indigo, and henna. These diffusions brought improved diets, increased agricultural production, and population growth in all the lands they touched.³⁹

Meanwhile, the centuries from 500 to 1000 C.E. also witnessed a remarkable diffusion of religious and cultural traditions, including the extension of Confucian values to Southeast Asia; widespread conversion to Buddhism in Central Asia, China, Korea, Japan, and Southeast Asia; the establishment of Manichaeism

³⁷ See John Middleton, *The World of the Swahili: An African Mercantile Civilization* (New Haven, Conn., 1992); Derek Nurse and Thomas Spear, *The Swahili: Reconstructing the History and Language of an African Society, 800–1500* (Philadelphia, 1985); and the rich archaeological study by H. Neville Chittick, *Kilwa: An Islamic Trading City on the East African Coast*, 2 vols. (Nairobi, 1974).

³⁸ On the caravan trade, see E. W. Bovill, *The Golden Trade of the Moors*, 2d edn. (London, 1968). On early West Africa in general, see Nehemia Levtzion, *Ancient Ghana and Mali* (London, 1973).

³⁹ See Shaffer, "Southernization"; and Watson, *Agricultural Innovation in the Early Islamic World*.

communities in Central Asia and China; the establishment of Islam throughout North Africa and Southwest Asia, as well as its introduction to northern India and parts of Central Asia; the establishment of Nestorian Christian communities in Central Asia and China; the conversion of Russia and Eastern Europe to Orthodox Christianity; the conversion of Western and Northern Europe to Roman Catholic Christianity; and the spread of literacy and formal education throughout much of the Eastern hemisphere.⁴⁰ Thus, in an era sometimes labeled a “dark age,” cross-cultural interactions fostered religious and cultural exchanges that shaped the history of the Eastern hemisphere well into modern times. These exchanges have worked enormous influence over the long term of history, and they deserve recognition when it comes to global periodization.

The post-classical era did not come to an end in the same way as the age of classical civilizations, as a casualty of epidemic disease, demographic catastrophe, and collapse of the states that maintained order on a large scale. Instead, it fell under the shadow of a fifth period of global history—an age of transregional nomadic empires, extending from about 1000 to 1500 C.E.—when cross-cultural interactions proceeded according to dynamics different from those of the post-classical era. Nomadic peoples established empires incorporating vast stretches of the Eurasian land mass, and they sponsored direct interactions between distant peoples. During the eleventh century, the Saljuq Turks built an empire extending from Central Asia into Southwest Asia and Anatolia. About the same time, the Khitan people established an empire in the steppelands north and west of China. During the twelfth century, the Jurchen, a semi-nomadic people from Manchuria, overcame the Khitan and incorporated northern China itself into their own empire. The most dramatic development of this period came during the thirteenth century, when the Mongols and their allies overran most of Eurasia and established the largest empire in human history, stretching from China, Manchuria, and Korea in the east to Russia and the Danube in the west. Even after the collapse of their Yuan dynasty in China (1368), the Mongols played a prominent role in Central Asia. Meanwhile, from the fourteenth until the early sixteenth century, Timurid conquerors built an impressive empire in Central Asia, India, Southwest Asia, and Anatolia. The migrations, conquests, and empire-building efforts of nomadic peoples guaranteed that cross-cultural interactions would take place in more intensive and systematic fashion than in earlier eras. Indeed, in the case of the Mongols, the establishment of a vast, transregional empire underwrote direct interaction between peoples from lands as distant as China and Europe.

It was significant that most of the nomads’ empires had their bases in Central Asia, a region crucially important to overland trade between China and points west. As a result of the nomads’ empires and their strong commercial interests, trade over the terrestrial silk roads became less risky than ever before in history, and its volume rose correspondingly. Trade over the sea lanes of the Indian Ocean also

⁴⁰ The processes promoting these religious and cultural developments varied considerably. For details, see Bentley, *Old World Encounters*, 67–110. See also Christopher I. Beckwith, *The Tibetan Empire in Central Asia* (Princeton, N.J., 1987), 173–96; Victor H. Mair, *Painting and Performance: Chinese Picture Recitation and Its Indian Genesis* (Honolulu, 1988); and Hugh R. Clark, “Muslims and Hindus in the Culture and Morphology of Quanzhou from the Tenth to the Thirteenth Century,” *Journal of World History*, 6 (1995): 49–74.

expanded, and the Indian Ocean basin moved toward economic integration. Recognizing the well-articulated and systematic nature of long-distance trade during the age of nomadic empires, Janet L. Abu-Lughod recently postulated a distinctive "world system" in the period 1250 to 1350 C.E.⁴¹

Mass migration, imperial expansion, and long-distance trade sustained cross-cultural interaction during the age of the nomadic empires as in earlier eras. The principal difference was that, by the early fourteenth century, those interactions had become much more frequent, regular, intense, and systematic than during previous eras. Ambassadors and missionaries traveled the trade routes alongside soldiers and merchants. The age of the nomadic empires witnessed the establishment of diplomatic contacts and religious missions over distances not previously spanned. Islamic merchants helped to establish a footing for their faith at the extreme ends of the Eastern hemisphere, in Southeast Asia and West Africa. Meanwhile, conquerors established Islamic communities in northern India and Anatolia.⁴²

So far as the conquest of distance is concerned, the most impressive cross-cultural interaction during the age of the nomadic empires involved the establishment of direct relations between Western Europeans and the Mongol rulers of China. Diplomatic initiatives stood behind some of the contacts between Europeans and Mongols: at various times, each side sought an alliance with the other against Muslims in Southwest Asia. Europeans also sought to convert the Mongols to Christianity and to establish a Christian community in China.⁴³ Whether their inspiration was diplomatic or evangelical, these efforts largely failed. The facts remain, however, that conditions were such that peoples could conceive and mount such enterprises during the thirteenth and fourteenth centuries, and many people on both the Mongol and the European side invested considerable energy in diplomatic and evangelical efforts.

William H. McNeill has suggested that cross-cultural interactions dating from this period had repercussions throughout much of the Eastern hemisphere. He has argued more specifically that the emergence of a vigorous market economy in Song China and the diffusion of technological innovations from China stimulated economic growth throughout Eurasia. McNeill's view of things has wide-ranging implications: if he is right, the remarkable round of economic, technological, and commercial development that took place in Song China would help to explain the

⁴¹ Janet L. Abu-Lughod, *Before European Hegemony: The World System, A.D. 1250-1350* (New York, 1989). A recent analysis offers useful insights on this age of nomadic empires: S. A. M. Adshead, *Central Asia in World History* (London, 1993). On long-distance trade during the age of nomadic empires, see Curtin, *Cross-Cultural Trade in World History*, 109-35; Simkin, *Traditional Trade of Asia*, 127-41; and Chaudhuri's two volumes: *Trade and Civilisation in the Indian Ocean* and *Asia before Europe*.

⁴² On the expansion of Islam during this age of nomadic empires, see especially Nehemia Levtzion, ed., *Conversion to Islam* (New York, 1979); Ross E. Dunn, *The Adventures of Ibn Battuta, a Muslim Traveller of the 14th Century* (Berkeley, Calif., 1989); S. M. Ikram, *Muslim Civilization in India*, Ainslie T. Embree, ed. (New York, 1964); Aziz Ahmad, *Studies in Islamic Culture in the Indian Environment* (Oxford, 1964); Speros Vryonis, *The Decline of Medieval Hellenism in Asia Minor and the Process of Islamization from the Eleventh through the Fifteenth Century* (Berkeley, 1971); and Claude Cahen, *Pre-Ottoman Turkey*, J. Jones-Williams, trans. (New York, 1968).

⁴³ On relations between Europeans and the Mongols, see especially Jean Richard, *La papauté et les missions d'orient au moyen âge (XIII^e-XV^e)* (Rome, 1977); Igor de Rachewiltz, *Papal Envoys to the Great Khans* (Stanford, Calif., 1971); and Morris Rossabi, *Voyager from Xanadu: Rabban Sauma, First Eastern Emissary to the West* (New York, 1992).

growth of trade throughout the Eastern hemisphere, the technological superiority that settled agricultural societies eventually gained over nomadic peoples, and the later emergence of Europe as a world power.⁴⁴ Thus cross-cultural interactions of the period 1000 to 1500 C.E. rank as processes of high significance for the history of the Eastern hemisphere and ultimately of the world as a whole.

As in the classical era, cross-cultural interactions not only served as a foundation for the age of nomadic empires but also helped bring it to an end. Frequent and regular trade over long distances facilitated the spread of diseases as well as commodities and religious faiths. The culprit during the age of nomadic empires was bubonic plague, which caused lethal epidemics in much of Eurasia and North Africa beginning about the mid-fourteenth century. Wherever it struck, bubonic plague disrupted economies and societies, and it wrecked the structures that supported long-distance trade, travel, and communication during the age of the nomadic empires. Between 1300 and 1400 C.E., the population of Europe declined about 25 percent, from an estimated 79 million to 60 million. Between 1200 and 1400, the population of China—devastated by Mongol conquests as well as bubonic plague—plunged from about 115 million to 75 million.⁴⁵ Cross-cultural interaction did not cease altogether, but during the second half of the fourteenth century it became less regular, intense, and systematic than during the previous 300 years. Once again, then, cross-cultural interaction had wide-ranging ramifications that influenced the lives of peoples throughout much of the Eastern hemisphere.

When the pace of cross-cultural interaction quickened again, it followed a set of dynamics different from those that operated during the age of the nomadic empires. By the early fifteenth century, Western Europeans had borrowed, invented, accumulated, and refined a technological complex that enabled them to become much more prominent than before on the world stage. Scholars have advanced differing explanations for European prominence: some attribute it in neo-Weberian fashion to the internal development of European energies, while others ascribe it in neo-Marxist fashion to European exploitation of other peoples.⁴⁶ In any case, partly as a result of their technological advantage, and partly with the unexpected aid of diseases that ravaged populations in the Americas and the Pacific islands, Western Europeans embarked on campaigns of expansion that vastly magnified their influence in the world.⁴⁷ These campaigns opened a sixth era of world history—the

⁴⁴ William H. McNeill, *The Pursuit of Power: Technology, Armed Force, and Society since A.D. 1000* (Chicago, 1982), 24–62, esp. 50–62; and “Rise of the West after Twenty-Five Years.” See also two works by E. L. Jones: *The European Miracle: Environments, Economies and Geopolitics in the History of Europe and Asia*, 2d edn. (Cambridge, 1987); and *Growth Recurring: Economic Change in World History* (Oxford, 1988).

⁴⁵ For the populations of Europe and China, see McEvedy and Jones, *Atlas of World Population History*, 18–39, 166–75. For studies of bubonic plague and its effects, see McNeill, *Plagues and Peoples*, 149–98; and Michael W. Dols, *The Black Death in the Middle East* (Princeton, N.J., 1977). Abu-Lughod identifies plague as the principal agent that destroyed the complex system of interregional trade that had developed during the thirteenth and fourteenth centuries: see *Before European Hegemony*, 170–75, 183, 352–73.

⁴⁶ Compare the analyses of Jones in *European Miracle* and *Growth Recurring* with those of Wallerstein, *Modern World-System*; and J. M. Blaut, *The Colonizer's Model of the World: Geographical Diffusionism and Eurocentric History* (New York, 1993).

⁴⁷ On the Europeans' technology, see Carlo Cipolla, *Guns, Sails and Empires: Technological Innovation and the Early Phases of European Expansion, 1400–1700* (New York, 1965); and Geoffrey Parker, *The Military Revolution: Military Innovation and the Rise of the West, 1500–1800* (Cambridge, 1988). On the

modern age, extending from 1500 to the present, a period during which all the world's regions and peoples ultimately became engaged in sustained encounter with each other, thus a period that inaugurated a genuinely global epoch of world history.

CROSS-CULTURAL INTERACTION must figure prominently as a criterion in any effort to establish a periodization of world history in modern times. Indeed, this point is clear enough that there is no need to belabor it. Cross-cultural interactions in modern times have taken many forms, and they lend themselves to analysis from several different angles. Some of the most dramatic results of modern cross-cultural interactions have arisen from the transportation of plants, animals, humans, and microorganisms across biological boundary lines. The demographic and ecological results of the "Columbian exchange," for example, have influenced the lives of all peoples on the planet.⁴⁸ Alongside biological exchanges, processes of cross-cultural interaction have brought political, social, and economic consequences. Europeans' military and transportation technologies progressively strengthened their hand with respect to the other peoples they encountered, and their technological advantages help to explain their prominence in modern times.⁴⁹ Interactions between different peoples have also had tremendous social and cultural repercussions in modern times, as the development and expression of ethnic identities have faithfully reflected their larger intercultural context.⁵⁰ Indeed, from almost every conceivable point of view, cross-cultural interactions have profoundly influenced the experiences of the global human community in modern times. Allowing for the usefulness of sub-periods—early modern, industrial, new imperial, contemporary, postmodern, and the like—the modern era as a whole stands out as one distinct from earlier epochs because of the intensity and systematic nature of the cross-cultural interactions that have driven it.

In the modern world as in earlier periods of history, developments internal to individual societies have helped to shape the experiences of the world's peoples. Yet throughout history, cross-cultural interactions also have influenced lives and

role of diseases in abetting European expansion, see McNeill, *Plagues and Peoples*, 199–234; and Crosby's two volumes: *Columbian Exchange* and *Ecological Imperialism*.

⁴⁸ The best guides to large-scale processes of biological exchange are Crosby's two volumes: *Columbian Exchange* and *Ecological Imperialism*.

⁴⁹ For only a few relevant works, see Wallerstein, *Modern World-System*; Wolf, *Europe and the People without History*; and two volumes of Daniel R. Headrick: *Tentacles of Progress* and *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century* (New York, 1981).

⁵⁰ To cite only a few especially rich items from a voluminous literature, see Helms, *Ulysses' Sail*; Stuart B. Schwartz, ed., *Implicit Understandings: Observing, Reporting, and Reflecting on the Encounters between European and Other Peoples in the Early Modern Era* (Cambridge, 1994); Michael Adas, *Prophets of Rebellion: Millenarian Protest Movements against the European Colonial Order* (1979; New York, 1987); John Thornton, *Africa and Africans in the Making of the Atlantic World, 1400–1680* (New York, 1992); James Axtell, *The European and the Indian: Essays in the Ethnohistory of Colonial North America* (New York, 1981); Richard White, *The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650–1815* (Cambridge, 1991); Greg Denning, *Islands and Beaches: Discourse on a Silent Land—Marquesas, 1774–1880* (Honolulu, 1980); David Hanlon, *Upon a Stone Altar: A History of the Island of Pohnpei to 1890* (Honolulu, 1988); and David A. Chappell, "Frontiers and Ethnogenesis," *Journal of World History*, 4 (1993): 267–75.

fortunes across the boundary lines of societies and cultural regions. Indeed, they have often influenced ostensibly internal developments. As historians view the past from broad, comparative, and global perspectives, they will need to bear in mind the roles of cross-cultural interactions in shaping the world's common history.

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