

READING 2

Candice Goucher, Charles LeGuin, and Linda Walton, *In the Balance: Themes in Global History* (Boston: McGraw-Hill, 1998). Selections from chapter 10, "Connections."

Abstract: This essay explores the varieties of connections among peoples of the world before 1500. It looks generally at commercial, diplomatic, and religious connections between diverse areas of the world. In so doing, it suggests the reasons why so many individuals were motivated to make difficult and often perilous journeys across cultural frontiers. It also discusses some of the many changes that resulted from these diverse contacts.

From the first century C.E., people, goods, and ideas moved over several well-known and long-established routes: the Indian Ocean route by sea and the Central Asian Silk Road by land, as well as the two established African connections, the trans-Saharan roads and the East African coastal system. In Europe, middle-distance systems, including the Viking route into Russia, were well established by the tenth century. Along such major systems of communication and exchange and at their ends were regional and local distribution networks.

The Silk Road

For a thousand years before the Mongol conquest of Eurasia in the early thirteenth century, one of the most important east-west interconnections was the Silk Road across Central Asia, created between the second century B.C.E. and the second century C.E. By the first century C.E., large and wealthy market zones lay at the eastern and western ends of Asia: Han China to the east and, to the west, the Parthian Empire in Persia with its connections to the Roman Empire in Europe. Routes through Central Asia linked trade between these markets, but there was little guaranteed security to reassure cautious merchants.

Before the Silk Road, goods moved sporadically and in small quantities. For 1500 years following its establishment, the Silk Road provided the main land connection over which people, technology, trade, and ideas moved between East and West Asia, Europe, and North Africa. As West Asian merchants and Roman soldiers reached eastward and Chinese merchants and Han armies stretched westward, Central Asian oasis states thrived along this caravan route. Gold was one of the most important items of trade, but spices and other luxury items were also traded. Han mirrors and coins found their way into Roman tombs as symbols of an era of rich contacts between East and West.

Origins of the Silk Road

The beginning of the Silk Road can be dated from expeditions sent out by the Han government (206 B.C.E.–220 C.E.). In 139 B.C.E., the Chinese emperor commissioned an expedition into Central Asia to solicit support against the Turkic Huns who were pressing China's northwest borders. The Chinese government sought to bring Central Asian states into tributary relations, but it also wanted to establish trade relations to obtain commodities such as the famous horses of the Central Asian kingdom of Ferghana. Although the ten-year expedition failed to gain the support the Han sought, it brought to the Chinese knowledge of peoples and places as distant as Syria, and by the end of the first century C.E. China had succeeded in imposing sufficient political control to ensure security for trade across Central Asian regions.

Commerce and Culture Along the Silk Road

Not only goods such as silk, for which the caravan route was named, but also ideas traveled the Silk Road. For example, Buddhism was initially brought to China via the Silk Road from India in the beginning of the first century C.E. Commerce along the Silk Road reflected the course of Chinese political history. During times of imperial vigor, trade was protected and goods moved expeditiously. When Chinese imperial power weakened and became ineffective, trade declined. With the fall of the Han Empire in the early third century, the Chinese presence in Central Asia waned. But with the rise of the Tang dynasty (618–907) and the restoration of Chang'an in the northwest as the capital of a powerful Chinese empire, the Silk Road once again flourished with its eastern terminus at the Chinese capital.

The Travels of Marco Polo

The Mongol conquest of China in the thirteenth century led to the creation of a Eurasian empire that stretched from China to Europe. The imposition of a *pax Mongolica* enhanced the importance of the Silk Road as the principal thoroughfare linking the Mongol government in China with its counterparts westward across Eurasia to the eastern frontiers of Europe. European interest in and knowledge of Asia were spurred by the travels of Marco Polo in the thirteenth century.

Accompanying his father and uncle on a commercial expedition to China, Marco Polo left his native Venice in 1271. The Polos traveled overland through Mesopotamia, Persia, and Turkestan, reaching China in 1275. Attracting favor at the court of Khubilai Khan, Marco Polo was able to observe the commingling of cultures in the khan's empire that were the result of Mongol adoption of aspects of the traditions and cultures of the settled peoples over whom they ruled. He noted that indigenous Mongol customs and manners had degenerated and been abandoned as the practices of

conquered people were taken up. For example, Marco Polo reported that Kubilai Khan was interested in Christianity and considered the possibility of mass conversion of his subjects. Polo remained in China until 1292, returning to Venice via Sumatra, Ceylon, India, and Arabia. By the time he arrived home in 1295, he had traveled both the overland and maritime routes connecting Europe and Asia.

The Indian Ocean

The maritime routes of the Indian Ocean were established about the same time as the overland Silk Road and were its primary competitor in east-west world trade. They were less subject to breakdowns of security and political disruptions than the overland routes were and consistently carried larger quantities of goods and people. Long-distance maritime trade in the western Indian Ocean existed from the third millennium B.C.E., and by the first century C.E. the number of ports had significantly expanded.

Shipping linked East Africa and Southwest Asia with India, Southeast Asia, and China. The earliest connections were made by ships that moved slowly, hugging the great northern loop of coastline between East and West. Early in the first century C.E., at both the eastern and western ends of this long, complex route, market conditions and political circumstances forced a change in the pattern of coastal trade: the Indian Ocean route became a maritime highway spanning the ocean between eastern and western ports.

Conflicts accompanying the Chinese expansion into Central Asia in the period 100 B.C.E. to 100 C.E. interrupted commerce along the Silk Road and access to the Siberian gold that had provided the main currency of Asian trade. Merchants moved south to the maritime routes as a safer means of increasing exchanges with West Asia and the Mediterranean, where the wealthy and stable Roman Empire could provide new supplies of gold. In response to the new demand for the rapid movement of larger amounts of goods through the Indian Ocean, the main shipyards of the Persian Gulf, the Red Sea, and the southern Arabian coastline built larger ships for heavier loads and refined sailing rigs to add speed. Supported by larger, faster ships and tempted by the larger market demand, Indian Ocean mariners were able to cut the four-month west-east coasting voyage to forty days by taking advantage of steady monsoon winds to sail directly from southwest Arabian ports to India.

Expansion of Indian Ocean Connections

The effects of the first-century expansion of Indian Ocean trade were felt all along the route. From the west, the Roman government expanded its shipping down the Red Sea and into the Indian Ocean. To reinforce its new trading position, it signed international trade agreements with Indian

governments, setting price ranges and guaranteeing protection for Roman shipping. Increased Roman trade along the Indian Ocean route meant a steady flow of gold to Asia, a fact commented on by Pliny the Elder (23–79), who in his *Natural History* speaks with disapproval of the drain on Roman gold reserves. According to Pliny, more than half of Rome’s gold went to India, primarily for pepper and cotton textiles.

India and the Indian Ocean Route

Following the withdrawal of Alexander the Great from India in 326 B.C.E., the centralized government of the Mauryan Empire (ca. 326–184 B.C.E.) developed administrative offices to cultivate and control the flow of wealth derived from increasing trade. The *Arthashastra*, a book of statecraft begun by the first Mauryan prime minister and probably completed around 250 C.E., describes how certain ports for international trade were managed and controlled by a port commission headed by a director of trade, whose job it was to set fair prices on international goods based on costs of production, customs duties, shipping costs, warehouse rent, and other expenses. Even with the decline of Mauryan power and regulations, port towns, concentrated on the southern coasts of India, continued the trade with Southeast Asia and China as well as with West Asia and Africa, developing a demand for goods and services to support their activities and thereby maintaining southern India’s population and economy with the east–west connections of the Indian Ocean trade routes.

China and the Indian Ocean Route

China, too, was affected by the emerging Indian Ocean highway, especially in its southern coastal provinces. First-century Chinese sources document the trade facilities and goods available along the route, as far west as Persia and Roman Egypt. Even more than China, Southeast Asia was shaped by the burgeoning east–west long-distance maritime trade. Sustained by the wealth of such commerce, regional empires were established and became the standard pattern of large government in the area during the first 1500 years C.E.

To a large extent, Southeast Asian ports served as a conduit for Chinese trade with the Arabs and Africans. Arabian frankincense, one of the main ingredients in incense used in religious ceremonies and also in many medicines, and African ivory, along with Southeast Asian spices, were among the staples of Indian Ocean trade destined for Chinese markets that passed through the ports of Southeast Asia. Chinese products in demand by its trading partners included silk, tea, and manufactured goods such as ceramics. Technology, people, ideas, and institutions also diffused along the same trade routes used by merchants. The *Record of Foreign Countries* (1225), by Zhao Rugua, a Chinese maritime official probably based in the southern port of

Quanzhou, provides detailed descriptions of such distant places as Baghdad, information gleaned from his contact with both Chinese and foreign traders.

Built on market demands and innovations in maritime technology, the economic power of the Indian Ocean trade network was impressive. By the second century, despite the efforts of some states to monopolize the ocean trade, the east-west maritime route helped create an interdependent Indian Ocean world. The Indian Ocean connection provided societies and cultures along its borders with a constant fertilization of new goods, people, and ideas.

African Routes: Trans-Saharan and East African connections

Africa, at the far western end of the Silk Road and Indian Ocean routes, in addition to participating in the east-west exchange, provided a south-north connection which added another dimension to established global commercial and cultural interaction. Across the huge continent, main highways were developed to link the inter-African markets and to connect them with Asia and Europe.

The Saharan Land Route

There were two major historical frontiers of global interconnection in Africa: the Red Sea and Indian Ocean frontier of East Africa, and West Africa's Sahara frontier. Although the commerce of the Red Sea-Indian Ocean frontier was maritime and that of the Sahara frontier was land-based, both seemed to border on oceans: the Sahara, a formidable desert some 3 million square kilometers (3 million square miles), may be considered an ocean of sand. The Arabic word *sahel* translates as "coastline," and in the Sahel region that borders the desert's southern edge were situated many "ports" of entry. Like the oceans of the East African frontier, the desert sands were not a barrier but rather a space to be regularly traversed, which Africans did along well-established trade routes beginning at least as early as the second century.

Of the southbound caravans we know little. Mediterranean and North African goods certainly must have included foodstuffs such as wheat and honey, textiles, books and paper, perfumes, jewelry, and other luxury items. The remains of a twelfth-century caravan found near Majabat al-Koubra included 2000 brass rods, in all weighing a ton, tied to the backs of camels. Historians can only surmise that the caravan became lost in the desert between oases. Salt mined in the Sahara was also a significant part of the desert's commercial relations. Northbound caravans carried southern products: kola nuts and pepper from the forest, ostrich feathers, leather goods, and gold. Kola nuts were especially important in the Muslim world from Asia to Africa, where they were chewed as a stimulant and used socially in place of alcohol, which the teachings of Islam forbade.

In the centuries before 1500, trans-Saharan trade with Europe is documented by the regular appearance in European markets of such items as “Moroccan” leather, a product actually manufactured in the Sudanic region of present-day Nigeria. For the centuries of the Common Era, no African goods captured the attention of world trade so much as West African gold. Like Siberian gold, that of Africa supported many contemporary European currencies. It was the rumor of gold, as well as other wealth on the African continent, that inspired the Portuguese and later European sea voyages that were to change the established global connections and significantly affect the global balance.

Problems and Profits of the Saharan Trade

Journeys across the Sahara were filled with danger, as the bones and debris of lost caravans show; they could last for months, and oases could be as far as ten days apart. Even once tolls and duties were paid to local authorities to ensure safe passage, caravans were under constant danger of attack by thieves and bandits. Shifting dunes and blowing sands could confound even experienced guides. The hazards were great, but so were the potential fortunes to be made. Reliable estimates of Akan gold production, a major source of Saharan trade, suggest that during the 1400s, 5,000 to 22,000 ounces of gold were produced each year. This enormous wealth was supplemented by fortunes to be made in the trading of brass vessels, kola nuts, and salt. In addition, the Saharan commercial network served as a conduit for the transfer of technology and ideas. The great Saharan ports of Sijilmasa, Timbuktu, Gao, and others were the entry points for a lively exchange of peoples and cultures. Through these ports passed traders and travelers from Genoa, Venice, Ghana, Cairo, Morocco, and beyond. The area known as Ghana was reportedly ruled by the Kaya Maghan, or “Lord of Gold.” In the eighth century, the Arab writer al-Bakri reported that the king had a thirty-pound nugget of gold to which he tethered his horse.

African Indian Ocean Routes

The second African long-distance trade network focused along the East African coast and was linked to the Indian Ocean trade. The area’s seasonal winds and the Indian Ocean’s currents reverse their direction every six months, which enabled voyages to return to the East African coast from southern Arabia, the Persian Gulf, and the Indian subcontinent within a single year. Beginning at least as early as the first century, the East African coastal strip thrived on regularized seaborne trade, which proved as profitable as that along the West African trans-Saharan routes. Ports from Adulis on the Red Sea down to Mogadishu on the Somali coast of the Horn of Africa supplied products from the hinterland to the Indian Ocean world.

In East Africa, coastal settlements served as trading posts in a complex African commercial system; there, goods were produced both for Indian

Ocean export and for trade with the interior of the continent and for local conspicuous consumption. Archaeological excavations of East African settlements dating from the ninth to fourteenth centuries confirm a wide array of exotic imports, such as glazed Arab, Persian, and Indian ceramic wares, Chinese porcelain, glass beads, and the like. Chinese coins and ceramics have also been excavated in inland sites such as the fourteenth-century city of Great Zimbabwe, located 300 miles inland from the Mozambican coast.

Great Zimbabwe was the capital of a twelfth-century state which controlled large goldfields that made it very important to Indian Ocean trade. Cloth was also of special significance along the East African trade frontier. Locally woven cotton textiles were exported, and silks and other exotic fabrics, in locally unavailable patterns, were imported. In exchange for imports, Africans exported products they manufactured, natural resources, and their labor: iron and steel, stone vessels, gold, ivory, tortoiseshell, rhinoceros horn, frankincense, myrrh, ebony and other hardwoods, and slaves, who were prisoners of war or victims of famine and debt.

The Social and Cultural Impact of Trade

As in West Africa, the development of long-distance commercial relations added to the prosperity of the East African coastal settlements. Such prosperity rested on preexisting African mercantile interests, a well-established, stable indigenous foundation that could welcome the arrival of foreign merchants and support the increasing complexity of coastal society. A distinctive culture that was influenced by other Indian Ocean trading peoples, particularly the Arabs, developed along the East African coastal strip. It was urban, literate, and cosmopolitan, and its large and impressive centers were cities along the coast and on islands such as Lamu, Zanzibar, and Kilwa. From the mix of Arabic and Bantu-speaking residents developed the uniquely African language and culture known as "Swahili." In turn, that culture spilled back along the trade routes to influence, among other things, the architectural style of coastal and southern Arabia.

While historians once viewed the East African coast as being on the periphery of an international maritime commercial network and subject to external influence or even colonization, the participation of coastal cities and settlements in trans-African and Indian Ocean commerce has now come to be viewed in a different light. No massive immigration seems ever to have taken place. Rather, local coastal economies and cultures increasingly became centers of a remarkable process of urbanization and state formation. Here, as elsewhere, the selectivity of Africans resulted in the adoption of some ideas and items of material culture brought there by Indian Ocean voyages and the rejection of others. Like the cities, states, and empires connected with the

West African and trans-Saharan trade routes, East African coastal cities were products of indigenous peoples and cultural traditions enriched by foreign contact.

European Connections: The Vikings

Even in imperial Roman times, northern and western Europe were only partially connected with the rest of the world. Although they benefited from the flow of peoples and goods along the secure road systems the Romans constructed, the western European markets were too small to draw much business. After the fifth-century collapse of Roman imperial government in western Europe, old connections were maintained along the Mediterranean coast through Venice and Constantinople, while in trans-Alpine regions the dominance of a self-sufficient agriculture-based manorial system meant that the demand for imported goods nearly vanished. In the ninth and tenth centuries, Vikings from northern Europe built a sea-based empire on conquest and trade.

Early steps in this direction were undertaken by the Norse — or Viking — peoples of Scandinavia. During the ninth century, the harshness of the Scandinavian environment and the pressure of an increased population on lands of limited productivity, along with the lure of profit and adventure, stimulated ambitious Viking rulers to set their people into motion. As immigrants, conquerors, and traders, Vikings left their northern homelands in open boats of 21 to 24 meters (70 to 80 feet) in length. Long and narrow, elegant and efficient, these were primarily rowed ships with a supplementary square sail, with high sides but a shallow draft. They could carry as many as sixty or seventy people across the open sea as well as down the quieter waters of inland rivers.

The Varangians: The Eastern Route

The eastern route taken by the Scandinavians was followed largely by Swedes. Crossing the Baltic, sailing down the Gulf of Finland, they used south-to-north-flowing rivers as aquatic highways for penetrating the plains of Russia. Indigenous people there called these Norse invaders “Varangians” or “Rus” (from which was derived the name “Russia”). The Varangians first appeared as plunderers and adventurers; they stayed as traders and mercenaries. In their remarkable boats, they followed river routes further south to the Black Sea and imposed their control over the various disunited Slavic peoples among whom they appeared. By 850, they had gained control of Novogorod and soon thereafter Kiev.

Varangian Kiev

The traditional history of the origins of the Kievan state begins with its capture by the Rus in 882, but almost everything connected with Varangian Kiev is subject to historiographical controversy. A Kievan state predated the arrival of the Rus, and there appears to be little basis for asserting a fundamental Scandinavian influence on Kievan culture. This does not negate a ninth-century Varangian presence there; indeed, archaeological, philological, and other evidence substantiates it. For example, the names of the ninth-century princes and the diplomats who negotiated treaties with Byzantium confirm a Varangian dynasty in Kiev.

From their base at Kiev, the Varangians maintained trade routes north to Scandinavia and south to Constantinople; indeed, Kiev was successful because of its position on the road "from the Varangians to the Greeks." Various Byzantine products found in Swedish tombs and graffiti that can still be seen on the columns of the great mosque of Hagia Sophia in Istanbul offer testimony to Varangian-Byzantine connection through Kiev. In addition, Kiev also traded with Central and West Asia, establishing commercial relations with the Islamic Empire, supplying slaves from Russia and Central Asia to the Abbassid caliphate in Baghdad.

The Vikings: Western Routes

Other Vikings, principally from Norway and Denmark, went west and south. Before the end of the eighth century, they were skirting and raiding Scotland and Ireland. By 830, they were establishing villages there and on the offshore islands; they used these small colonies as bases from which to raid and plunder the rich monastic establishments on the fringes of Christian Europe. From their stations in Ireland and the North Sea islands, the Vikings sailed westward across the open North Atlantic.

Shortly after the middle of the ninth century, they reached Iceland and settled there permanently; from Iceland they were lured on to Greenland, where Erik the Red set up a colony in 981. From there, Erik's son, Thorvald Eriksson, who had been told about a place called "Vinland" (an Old Norse term for "grassland" or "pasture") by his brother Leif, who had reached this land (actually thought to be Nova Scotia) about the year 1000, pushed westward to Labrador and southward to Newfoundland, on whose northernmost point, at L'Anse aux Meadows, the first known European colony in North America was established. Vikings may also have sailed further south to Massachusetts and Martha's Vineyard, but their colony at L'Anse aux Meadows lasted scarcely a year and their connection with North America was not permanent.

The Vikings: Southern Routes

Westward-moving Norse also turned south, to both Carolingian and Islamic Europe and North Africa, where they conquered lands and were successfully integrated into existing political systems in Spain and North Africa. By 1100, they had taken over southern Italy and all of Sicily. From this base, they became active, if ephemeral, participants and competitors in the political economy of the Mediterranean, the western terminus of the ancient east–west world trade routes.

As the Vikings moved into the Mediterranean, they came up against competition from Venice and the Byzantine Empire. These two experienced trading powers had achieved a successful relationship with the Africans and West Asians who controlled the east–west avenues of the world trade system before the Vikings appeared, and they concentrated their maritime energies on achieving a naval domination of the Mediterranean that would enable them to control the extraordinarily profitable trade connections between European and eastern and southern markets. From the twelfth century, the Mediterranean was increasingly a Venetian monopoly.

The Mongol Empire and The Thirteenth-Century World System

The Mongol Empire, which rose in the thirteenth century, created connections across Eurasia that brought a new world system into being. By the eleventh and twelfth centuries, following centuries of localized economies and manorial self-sufficiency in western Europe, cities with market economies based on large-scale production and long-distance trade began to revive. Driven by population growth, the increasing importance and wealth of merchant-manufacturers, and the growing power of ambitious princes, European roads were rebuilt and connections were established with global routes of exchange and intercommunication.

Before the Mongol conquest of China in the mid–thirteenth century, the Chinese economy had developed to a high level as the core of the East Asian world. Increases in agricultural productivity, commercialization, the establishment of a money economy, expansion of the iron and steel industry, and urbanization characterized the Chinese economy as it grew in the centuries between about 750 and 1250. Although the wars preceding the Mongol conquest contributed to the demise of this spectacular economic growth, the Mongol conquest brought the East Asian world into sustained contact with the Islamic and European worlds.

For about a century, the *pax Mongolica* provided a steady means of contact across the broad reaches of Eurasia and strengthened earlier links across the Silk Road, while forging new routes farther to the north. European regions

and port cities around the Mediterranean were linked to West Asia (Persia and Iraq), South Asia, and East Asia, and indirectly North Africa and as far east as Japan. Textiles, ceramics, and other goods were transported in both directions, bringing Chinese silks to European markets and Iranian pottery to influence Chinese ceramic design.

As the Crusades had brought renewed knowledge of Arabic science and philosophy to Europe on a much larger scale, the vast empire created by the Mongol conquest facilitated the exchange of ideas as well as goods across vast distances and wide cultural gulfs. At the same time, the military advances of the Mongol armies wrought devastation and, less obviously and far more destructively, contributed to the spread of disease across Eurasia. The “Black Death” that decimated European populations in the fourteenth century was probably a consequence of movements of Mongol troops into areas such as southwestern China, where bubonic plague was endemic, and the transmission of the disease over the Central Asian caravan routes.

Connections: The Spread of Disease

Although it is difficult to know precisely how the disease was spread, the appearance of bubonic plague in fourteenth-century Europe must have been a consequence of disease-carrying rodents infecting Mongol troops and of fleas infesting goods that were carried across the caravan routes. In areas where the disease was endemic, local populations developed ways of dealing with the disease and resisting its spread. Outsiders — soldiers, traders, and so on — who entered these areas were ignorant of these practices and either died from the disease or became carriers of the infection.

The Black Death in Europe

The distribution of bubonic plague across Eurasia and North Africa coincided in time with new patterns of movement of human populations that were inaugurated by the Mongol conquest. Between 1346, when the Black Death first made its appearance in Europe, and 1350, one-third of the population of Europe died. Recurrences in the next two decades further reduced the European population. The devastation of the population produced severe labor shortages and resulted in dramatic social and economic transformations. The value of labor rose as population declined, and as laborers became more independent and demanding, governments determined to curb them by imposing new regulations and controls.

All over Europe, peasant revolts, such as the jacqueries (popular uprisings named for the common man, or “Jacques”) in France and Wat Tyler’s Rebellion (1381) in England were common. The Black Death also resulted in a revival of religious fervor and enthusiasm in Europe. Interpreting the disease as punishment for sinful nonbelief, many, including kings, became zealous

Christians. By the time the plague reached England and Scotland, it was expected and preparations were made by religious authorities to deal with the great numbers of dead and dying. Henry Knighton, writing in 1348, described the arrival of the plague:

The dreadful pestilence penetrated the sea coast by Southampton and came to Bristol, and there almost the whole population of the town perished, as if it had been seized by sudden death; for few kept their beds more than two or three days, or even half a day. Then this cruel death spread everywhere around, following the course of the sun. And there died at Leicester in the small parish of St. Leonard more than 380 persons; in the parish of Holy Cross, 400; in the parish of St Margaret's, Leicester, 700; and so in every parish, a great multitude. Then the Bishop of London sent word throughout his whole diocese giving general power to each and every priest, regular as well as secular, to hear confessions and to give absolution to all persons with full episcopal authority, except only in case of debt. . . . Likewise the Pope granted full remission of all sins to anyone receiving absolution when in danger of death, and granted that this power should last until Easter next following, and that everyone might choose whatever confessor he pleased.

Spread of the Black Death

The Black Death was not limited to Europe. There is evidence that the bubonic plague also reached the Islamic world. Both Egypt and Syria experienced epidemics of the plague, probably carried through the Mediterranean ports with which they had constant contact. Approximately one-third of Egypt's population died in the first onslaught of plague in the late 1340s. By the end of the next century, the plague had reached across the Sahara, where its path was slowed by the tropical tsetse fly, which killed the rats that were the carriers of the plague. Tracing the spread of this devastating plague has allowed historians to perceive the interconnections between Europe, Asia, and Africa and between the social and natural environments.

The thirteenth-century Afro-Eurasian world system, three continents bound by economic and political connections, can be seen as a successor to a pre-Mongol Asian (perhaps even China-based) system, the center of which moved from east to west. The Mediterranean and the Indian Ocean, the major maritime centers of the thirteenth-century world system, were further connected through the land-based Mongol empire. The Afro-Eurasian world was a precursor of the fifteenth- and sixteenth-century world system focused on the Atlantic and inaugurated by Europeans. The world system core once again shifted, this time to the Atlantic. As Europeans crossed this sea route, they brought with them diseases that were new and devastating to the inhabitants of the Americas.

Pre-Columbian Connections in the Americas

Until the fifteenth century, the Americas remained isolated from the land and sea highways that had established commercial and cultural connections among Asia, Africa, and Europe, just as the Europeans were equally isolated from the societies and the trade and cultural connections of the Americas. The Viking foray into Greenland, Labrador, and Newfoundland did not alter this mutual isolation, though it may be seen as a prelude to its end. As with the European, Asian, and African connections, those indigenous to the Americas were both regional and intercontinental. The American routes differed in nature and scope from the Asian-African-European connections, but they nonetheless enabled contacts to be made between the peoples of the Americas long before they were bound together by European conquest.

Mesoamerica

Mesoamerica serves as a model and a sort of keystone of inter-American connections. Several Mesoamerican societies had connections that led to the exchange of goods and cultures. Jade deposits in territory controlled by the Olmecs (fl. ca. 1000 B.C.E.) contributed to far-flung trade, from Costa Rica and Guatemala in the south to the Mexico Valley in the north. Teotihuacán (ca. 100 B.C.E.–750 C.E.) was involved in a wide trading network that probably linked all major contemporary Mesoamerican cultures. Teotihuacán obsidian, one of the most common materials used for weapons, has been found widely distributed.

Evidence suggests that the cultural brilliance of Teotihuacán was known to the early Maya (ca. 300–900 C.E.) as a result of trade conducted between these two cultures. The Maya's regional trade in salt, hard stone, and pottery brought together outlying districts and may have been a major basis for the integration of Mayan society. The Aztecs (ca. 1300–1521) controlled a trading empire that spanned Mexico and incorporated larger and larger adjacent territories. By the time the Aztec state fell to the Spanish in the early sixteenth century, its connections bound the Gulf of Mexico to the east with Oaxaca in the south and extended even to the Yucatán Peninsula.

Mesoamerican and South American Connections

Mesoamericans also had intercontinental connections with South and North America. The appearance of maize in agriculture along the Peruvian coast about 1500 B.C.E. suggests early connections with Mesoamerica, where maize was first domesticated. Little is known about the nature of that contact or how it came about, but the appearance of maize and of a distinctly Mesoamerican style of figurine in Peru confirms an ancient connection. It is likely that the connections between Mesoamerica and South America were

neither close nor continuous before Columbus, though there is evidence of Incan maritime contact with Mesoamerica.

South America

Regional connections in South America existed early, flourished, and were continuous. As early as the time of Chavin de Huantar (ca. 1000–200 B.C.E.), when the llama and alpaca were domesticated for transportation as well as wool, exchange routes were established along the west coast of South America. These were expanded by other cultures, such as the Chimu (ca. 800–1400), and were ultimately brought under the sway of the Incas (1438–1536), who organized control over some 2300 miles of territory stretching along the western coast of South America from mid-Ecuador in the north to the upper half of Chile in the south.

The interweaving of the incredible range of ecological zones and altitudinal levels in Inca territories produced complex patterns of exchange and required concentrated authority to maintain routes and supervise trade. This may account for the special character of exchange during the period of Inca dominance. There was no private or open exchange; rather, goods, cultural influences, and the routes along which they moved were controlled by the hierarchically organized state. Highland basins traded produce and textiles to lowlands for the gold needed for ritual and conspicuous consumption. Connections were even established east of the Andes. Andean precious metals, copper, and produce passed east as far as the upper Paraguay River, and cotton cloth, feathers, jaguar skins, coca, fish poisons, and medicines returned from the trans-Andean lowlands.

Ecuadoran Voyages

Sedentary villages along the coast of present-day Ecuador date from about 4000 B.C.E., and archaeologists have documented that the villagers relied heavily on marine resources for food. It appears that their Pacific connections also brought them wealth in the form of the *Spondylus* seashell. The shell, which is found only in the warmer waters of the Pacific near Mexico, was excavated in ritual contexts dating to around 3000 B.C.E. After about 700 B.C.E., its use was more common; the shell had become an exchange currency. Ecuadoran voyagers used large, balsa wood sailing rafts with movable centerboards and rigged sails for their Pacific travels. The same sailing routes may also have permitted the diffusion of early metalworking technology from South America to Mesoamerica.

Mesoamerican and North American Connections

The connections between Mesoamerica and North America are somewhat more clearly understood than those between Mesoamerica and South

America. As early as Teotihuacán, there were northern routes that extended westward into Arizona and New Mexico to the Anasazi of the Colorado plateau, where Mesoamerican feathers, gold, and cacao beans (then the major medium of monetary exchange) were traded for turquoise. Other routes of trade and sociocultural influence extended eastward toward Oklahoma and Arkansas. Later Toltec (ca. 750–1150) traders and explorers in search of such things as alum, salt, incense, and raw copper also reached as far as the present-day southwestern United States, where they seem to have influenced the Anasazi. Much of the characteristic southwestern ceremonial art derives from the end of the Toltec period and may reflect a fusion of Mesoamerican rain god cults with local religious traditions.

Mesoamerican influence also spread north and eastward, to the area of the warm and wet woodlands around the confluence of the Mississippi, Missouri, and Ohio Rivers, the center of Mississippian culture. The routes of the Mississippian prototypes remain unknown, but the Mississippians' architectural styles, including temple-topped pyramids built around a central plaza, and their ceremonial art styles all show a generic relationship to Mesoamerican features. As in the case of the peoples of Andean highland South America, the heavy reliance of the Mississippians on maize, along with squash and beans, suggests early connections between North and South America, while copper seems to have been carried to South America from the eastern woodlands.

North America: Mississippian Connections

Mississippian regional connections are better known. They focused on the great center at Cahokia (fl. ca. 900–1300), a city built by native North Americans. Through extensive trading connections, Cahokia was in constant contact with other communities scattered across nearly a third of the North American continent. The ruling elite at Cahokia controlled trade in raw materials, such as seashells, coppers, flint, and mica, which were drawn from a wide radius extending from north of Lake Superior to the Gulf Coast shoals of Florida and from the Appalachians as far west as the plains of North and South Dakota and Nebraska. In addition, the Cahokians manufactured a variety of goods for export: salt, tools, jewelry, and ceremonial goods.

The exports and imports—it took a steady flow of some 25,000 to 30,000 pounds of food a day to feed the people of Cahokia—traveled mainly by water, since domesticated draft animals (other than dogs) were not in use. Much of the produce was transported on streams and lakes, perhaps linked by canals; indeed the city may have been so interlaced with waterways that it would have resembled European Venice. Tons of goods carried in canoes up to 15 meters (50 feet) in length moved along water routes to satellite centers

and outposts. Cahokia must have maintained a small fleet of such vessels, together with auxiliary vessels, docks, and boatyards.

Similar in kind to those of Asia, Africa, and Europe, connections in the Americas bound two continents together and served as avenues for trade and cultural interchange. Extending over distances comparable to the east–west and north–south connections between Asia, Africa, and Europe, they had unique features: for example, the lack of horses and camels as draft animals on overland routes and the differences in ships used for maritime and riverine routes. They served the needs and purposes of Americans before the European conquest and were integrated into the shifting pattern of connections that underlay the establishment of European global dominance following 1500.

Pacific Connections Before 1500

Like the Americas, the thousands of islands that lay scattered over the face of Pacific Oceania remained isolated from the connections that had been established between Africans, Asians, and Europeans before 1500. Pacific Oceania is divided into Melanesia, Polynesia, and Micronesia. The peoples who inhabited these islands established their own regional connections across the Pacific as early as the first and second millennia B.C.E. when maritime traders identified with the Lapita cultural tradition began to settle in Melanesia, the islands south of the equator from Papua New Guinea to the west to Fiji to the east.

Lapita Culture

The Lapita culture was probably an extension of much earlier migrations to Pacific Islands from Southeast Asia. Sedentary agriculturalists, the Lapita brought with them domesticated plants and animals along with a distinctive pottery style. They cultivated crops such as taro, yams, bananas, breadfruit, and coconuts, which were spread by occasional voyages among the islands. By 1300 B.C.E. these people had reached the outer boundary of Fiji and soon after made their way to Polynesia by way of Tonga and Samoa.

Melanesia: Vanuatu

One of the major island groups in central Melanesia, Vanuatu is a string of verdant volcanic islands. The archipelago of Vanuatu lies outside an ecological boundary at the Solomon Islands to the northwest; beyond this boundary there are no native land mammals, and the vegetation and bird life on the islands is distinct from that on the other side of the boundary. The earliest evidence of human habitation dates to about 3000 years ago and is consistent with the spread of Lapita culture from an early center northwest of the Solomons. In addition to pottery style, the spread of Lapita culture to

Vanuatu is associated with the introduction of the pig, dog, and chicken, as well as evidence of stone tools and shell ornaments.

We can identify the spread of Lapita culture to Vanuatu with the expansion of regional exchange networks, and archaeological evidence of change about 2000 years ago can be seen as the product of a process of diversification that took place in Lapita culture because of difficulties in maintaining regular contact among relatively distant island groups. This change indicates the constriction of regional exchange networks.

A third major change in Vanuatu's connections with other South Pacific islands is suggested by archaeological sites dating from about 750 years ago. Archaeologists who have excavated the grave of an individual known as Roy Mata, an important chief from "the south," suggest that he was a Polynesian immigrant and that his and other graves from this period and later show a wave of Polynesian migration to the Vanuatu chain. Whatever new discoveries yield about the past of Vanuatu and whatever new interpretations are shaped by them, it is clear that Vanuatu, like other islands in the Pacific was part of a complex and dynamic system of regional exchange networks and subject to changes brought about by fluctuations in contact as well as by migration of peoples across extensive sea routes.

Polynesia

Polynesians inhabited the group of islands within a triangle in the central Pacific bounded by Hawaii, New Zealand, and Easter Island. This area, along with Micronesia to the west of it, was among the latest to be occupied by humans, probably around 3000 years ago. During the first millennium C.E., trading relations established by the dispersal of peoples led to the transfer of crops, technology, and some aspects of a common culture. Around 300 C.E. Samoans made their way by canoe eastward to the distant Marquesas Islands. Between 400 and 850 the Marquesas served as a primary center for the diffusion of a common culture – people, animals, plants, technology, and arts – across Polynesia, including the most distant corners of the Polynesian "triangle:" the Hawaiian Islands; the Society Islands, and Easter Island; the Southern Cooks and New Zealand.

Maori

Polynesians who settled in New Zealand, the Maori, provide a well-documented example of how Polynesians explored and settled the Pacific in decked vessels capable of carrying 100 to 200 persons, with water and stores sufficient for voyages of some weeks. They had knowledge of the stars and were able to determine favorable seasons for voyages. They were keen navigators, setting their courses from familiar landmarks and steering by the sun and stars and the direction of winds and waves.

Polynesian settlement of New Zealand presented an enormous ecological challenge, since most of the domesticated plants and animals from the Marquesas either failed to survive the long voyage or died out soon after in the different climate. Polynesian settlers adapted to the new environment by becoming hunter-farmers, which led to environmental changes and in turn to the necessity to adopt new strategies for survival that were no longer linked to Marquesan origins.

Megaliths of Easter Island

Formed of three extinct volcanoes, Easter Island, also known as Rapa Nui, lies about 3700 kilometers (about 2300 miles) off the west coast of modern Chile, at the outer edge of Polynesia. The fertile volcanic soil and year-round warm climate allow the cultivation of potatoes, sugar cane, taro, and tropical fruits. The earliest settlement of the island probably took place about 1800 years ago, though some believe it was more recent; the original inhabitants are thought to have been of South American origin. Strong trade winds brought early Polynesians to Easter Island. It is believed that people from the Marquesas Islands traveled in canoes and invaded Rapa Nui, taking over the island from its original inhabitants.

Since the arrival of a Dutch explorer on Easter Day in the early eighteenth century and later Chilean occupation of the island, archaeologists have puzzled over the large stone monuments (megaliths) found on the island. Ranging in height from three to twelve meters (ten to forty feet), about 100 of these statues — huge heads with elongated ears and noses — remain standing today. Large stone burial platforms called ahus support rows of statues; within the ahus are burial chambers for individuals or groups.

The burial platforms are located on bluffs overlooking the sea, and it is thought that there were perhaps as many as 600 statues at the time of the Polynesian invasion, many of which were destroyed as Polynesians wrested control of the island from its original inhabitants. Smaller sculptures of wood and wooden tablets have also been found on Easter Island. The tablets are inscribed with what appears to be a form of picture writing, providing the only evidence of a writing system in Polynesia, though it remains undeciphered.

Micronesia

To the west of Polynesia and the north of Melanesia lie the hundreds of islands of Micronesia, scattered over an ocean larger than the United States but containing a total of only 3260 square kilometers (1,260 square miles) of land area. The most southerly and westerly Micronesian islands are the Marianas, the largest of which is Guam; the most southerly are the Carolines; and the most westerly, the Marshalls. Despite the great distances between the

island groups and the fact that each inhabited island or the waters around it produced only the bare essentials for the peoples living on it, connections among the islands were maintained.

Overseas trade was a prominent feature of Micronesian life. Nearly every place produced a specialty – flat mats or baskets, unique dyes or special shell ornaments – which it exchanged for something unusual from another place. For example, Yap islanders sailed to Palau to quarry and carry back home the large disks of stone they used for a special kind of money. Fleets of atoll dwellers from the islands between Yap and Truk regularly sailed to Guam, and similar enterprises went on throughout Micronesia. Exploits over such distances produced daring sailors and skilled navigators. To maintain the connections among their islands, Micronesians mastered the intricacies of seasons, currents, and winds and even developed charts to guide them on their long voyages.

Summary

Most of the world was linked by land and sea routes before the fifteenth century. Traders, pilgrims, missionaries, and other travelers traversed these routes, carrying goods and ideas over long distances and creating interconnections among regions, cultures, and even continents. Although the Americas were not connected with the Afro-Eurasian linkages, within the Americas there was a complex array of interregional contacts, facilitated by the organization and power of the large states that appeared in Mesoamerica and Andean South America.

In Asia, Africa, and Europe, the rise of empires such as that of the Mongols brought previously isolated cultures and societies into contact. From Asia to Europe to Africa, interregional systems of trade and political connections also resulted in cultural exchange. Mongol conquests changed the face of the Afro-Eurasian experience and cemented interregional connections into a world system, its core shifting westward toward Europe, whose hegemony would dramatically alter the nature of African, Asian, American, and European connections in the centuries after 1500.