

48249385

WORLD SOCIAL CHANGE

Series Editor: Mark Selden

Social and Political Change in Revolutionary China: The Taihang Base Area in the War of Resistance to Japan, 1937-1945
By David S. G. Goodman

Transforming Asian Socialism: China and Vietnam Compared
Edited by Anita Chan, Benedict J. Tria Kerkvliet, and Jonathan Unger

North China at War: The Social Ecology of Revolution, 1937-1945
Edited by Feng Chongyi and David S. G. Goodman

Istanbul: Between the Global and the Local
Edited by Caglar Keyder

The Origins of the Modern World: A Global and Ecological Narrative
By Robert B. Marks

The Origins of the Modern World

A Global and Ecological Narrative

ROBERT B. MARKS

LB 4180/02

D
203
M37
2002

ROWMAN & LITTLEFIELD PUBLISHERS, INC.

Lanham • Boulder • New York • Oxford

CHAPTER ONE



The Material and Trading Worlds, circa 1400

We are born and raised under circumstances neither of our own choosing nor of our own making. In fact, the world we confront is composed of social, economic, political, and cultural *structures*. These large structures change very slowly, seldom as a result of conscious action on the part of a single person, and mostly only as a result of huge processes that are hardly detectable, by large and sustained social movements, or, as we will see, during historical conjunctures.

To understand the vast changes that accompanied the origins of the modern world, we thus need to start with some of the structures into which people in 1400 were born, lived, and died. Of course, we cannot possibly examine every facet of human life at that time, so we must be quite selective (especially to keep this history “brief,” as I promised). What I have chosen to emphasize are but two of the major structural aspects of the world in 1400: first, the material and natural conditions under which most people lived, an overwhelmingly agricultural world, or what can be called “the biological old regime”; and second, the trading networks that connected most of the Old World together. This chapter thus introduces two kinds of worlds, the material one in which most people lived quite restricted lives, and the trading, or commercial world, which brought the parts of the world into increasingly greater contact. To show how these are interrelated, the chapter concludes with an examination of the causes and consequences of the mid-fourteenth-century Black Death—one of the great catastrophes to befall human society—in western Europe and East Asia.

This chapter also introduces key concepts that will be used throughout the

book. Most of this chapter focuses on the material world, in particular the size of the human population and the economic, social, and environmental conditions under which most people lived. The concepts that will be introduced in this chapter include the rise of *civilization* and the *agricultural revolution*, the relationships between towns or *cities* and the countryside, between *ruling elites* and *peasants*, also called *agriculturalists* or *villagers*, between civilizations and *nomads*, and between people and the *environment*. Taken together, these relationships constitute the *biological old regime*, the working out of which is examined in the Black Death of the mid-fourteenth century.

We will also examine the *world system* as it existed around 1400. Today, there is much talk about—and demonstrations against—the benefits and dangers of *globalization*. In this context, many people apparently consider globalization to be a new phenomenon, whether or not they think its impact on the whole is beneficial or harmful. However, if there is anything I hope readers will take away from reading this book, it is that “globalization” is hardly new: it has been unfolding for a very long time. Key concepts in this chapter will include *polycentric* (to describe a world system with many centers), and *core* and *periphery*, whether applied to a single or a polycentric world system.

Another major point about the fifteenth-century world is that most of its people—regardless of where they lived, their civilization, or even their various folk customs—shared a basically similar material world. The reason is that people had to eat, and after the agricultural revolution 5,000–8,000 years ago, the way most people have obtained their living has been from agriculture. To be sure, whether the main crop was wheat, rye, or rice mattered, but all of the agriculturists faced similar challenges in dealing with nature, the ruling elites, and one another. For this reason, much of this chapter will deal with the social, economic, and political structures essential to understanding the early modern world (that is, the one from about 1400 to 1800). The following chapters take up the story of what happened after 1400; in this chapter we establish a baseline in terms of material life against which changes in the world can be assessed.

The Biological Old Regime

The number of people on earth is an important indicator of the relative success humans have had in creating the material conditions under which the human population can either increase or decline. Of course, there are tremendous variations in time and place of population dynamics, and we will consider some of them here. As a first approximation, though, we can start with simple global totals.

The Weight of Numbers

Here we look at the weight of numbers¹ to get an overall picture. Today, there are just over 6 billion people on earth. Six hundred years ago, in 1400, humankind was just 6 percent of that, or about 350 million people, slightly more than the current population of the United States of 280 million. By 1800, the population had more than doubled to 720–750 million.² Moreover, in that 400-year period from 1400 to 1800, as much as 80 percent of that population were peasants, people who lived on the land and were the direct producers of food for themselves and the rest of the population. The world was overwhelmingly rural, and the availability of land to produce food was a constant constraint on the number of people alive at any given moment. For most of that period, the population rose and fell in great waves lasting for centuries, even if the very long-term trend was very slightly upward and the declines came sharply and swiftly. In very broad terms, we can see three great waves of population increase and decrease over the past one thousand years. Beginning about 900–1000 c.e. (probably simultaneously in China and Europe), the population rose until about 1300, crashing precipitously around 1350 as a result of the Black Death. Another period of increase began about 1400 and lasted until a mid-seventeenth century decline. The third advance, beginning around 1700, has yet to halt, although population experts expect it to by about 2100.

Climate Change

It now appears that climate change was a general cause of the premodern population increases around the world. Given the interest in the past twenty years to our current problem of global warming, historians and meteorologists have reconstructed past climates and have indeed found significant changes in temperatures and rainfall.³ The connections between climate change and human population dynamics are complex, but the major linkage, especially in a world where 80–90 percent of the population made their living from the land, has to do with food production. Variations in temperature, radiation, and rainfall affect all growing things, trees as well as wheat or rice. Better climatic conditions improved harvests, while harvest failures could spell disaster. Long-term cooling trends could thus seriously shrink the food supply and hence the ability of the society to sustain a given population, leading to population declines. On the other hand, generally warming conditions could mean larger harvests and a growing human population.⁴ As we will see, though, climatic changes count less for population growth in the period since 1700 when New World resources and industrialization began to ease prior constraints on population growth.

Population Density and Civilization

The 350 million people living in 1400 were not uniformly distributed across the face of the earth, but rather clustered in a very few pockets of much higher density. Indeed, of the 60 million square miles of dry land on earth, most people lived on just 4.25 million square miles, or barely 7 percent of the dry land. The reason, of course, is that that land was the most suitable for agriculture, the rest being covered by swamp, steppe, desert, or ice.

Moreover, those densely populated regions of earth corresponded to just fifteen highly developed civilizations, the most notable being (from east to west) Japan, Korea, China, Indonesia, Indochina, India, the Islamic West Asia, Europe (both Mediterranean and Western), Aztec, and Inca. Astoundingly, nearly all of the 350 million people alive in 1400 lived in a handful of civilizations occupying a very small proportion of the earth's surface. Even more astoundingly, that still holds true today: 70 percent of the world's six billion people live on those same 4.25 million square miles.⁵

The densest concentrations of human population were (and still are, for the most part) on the Eurasian continent: China in the east, Europe in the west, and India in the south, with the populations of China and Europe about equal over large periods of historical time. So large are those three populations relative to the rest of the world that China alone represented 25–40 percent of the world's population (the latter percentage attained in the 1700s), Europe was 25 percent, and India was perhaps 20 percent. In other words, those three centers alone accounted for about 70 percent of the population of the world in 1400, increasing to perhaps 80 percent by 1800. Those amazing figures go a long way toward explaining why what happened in China, India, and Europe plays such an important role in this book.

The fifteen densely populated and highly developed civilizations shared several features, the most important of which was the relationship between those who lived in the countryside producing the food supply and those living in the cities consuming surpluses from that food production, even though the elites in the cities may have devised different means by which to ensure that food produced in the countryside made its way to the cities. This extractive relationship between town and countryside has a long history, going back to the Neolithic, or agricultural revolution of 5,000–8,000 B.C.E.

The Agricultural Revolution

About 10,000 years ago, first in the part of the world aptly called the “Fertile Crescent” (currently Iraq), people learned how to grow their own food and to raise their own animals, thereby increasing the amount of food available. This change, from a hunting-and-gathering society to a sedentary agricultural

society, occurred over long periods and independently in at least three parts of the world: about 10,000 years ago in the Fertile Crescent along the Tigris and Euphrates rivers; in northern China about 9,500 years ago, around 5,500 years ago in what is now Mexico in Mesoamerica, and around 4,500 years ago in what is now the eastern United States. It may have happened independently in parts of Africa and New Guinea as well, although it did not happen everywhere: grasslands suitable for animal pasture retained that character until well into the twentieth century.⁶

Although some have objected to the term “revolution” because the development of agriculture took such a long time even in the areas where it began,⁷ it was nonetheless a revolutionary change in the way people lived, socialized, and died, for what agricultural advances made possible was ever-greater amounts of food than the direct producers could consume in any given year, in other words an “agricultural surplus,” giving rise to social groups who did not have to produce their own food: priests, rulers, warriors, and outside raiders, usually nomadic people. The existence of this agricultural surplus meant that others could take it, either by force if necessary or more regularly as taxes. In either case, a major schism opened in society between the agriculturists and the nonproducing ruling elite: the job of the agriculturists was to produce the food and the surplus, the role of the priests was to explain how and why the world had come to exist in the first place, and that of the rulers was to protect the surplus from invading outsiders.

The agricultural revolution also gave rise to two additional defining characteristics of “civilization,” cities and writing. Since priests and rulers did not have to produce their own food, they could live separate from the villagers, in their own compounds as it were. Rulers also gathered around themselves artisans to produce needed clothing, weapons, and buildings, giving rise to the larger concentrations of people we have come to call “cities.” From there, the elite could rule their lands while keeping track of the number of agriculturists, the amount of food they produced, and in particular the amount they owed the rulers in taxes, developing systems of accounting and writing. Besides keeping count of population and taxes, writing was also useful for priests to record their origin stories, to compute calendars for agricultural and ritual purposes, and to forecast the future.

A city and its surrounding agricultural area typically was not self-sufficient, so people traded with other cities or with nomads or other pastoralists for raw materials (e.g., metals such as copper and tin, the makings of bronze, or later iron ore) or animals (especially horses). If the required goods were also strategic, that is, related to military sources of power, ruling elites tended to distrust trade and wanted to secure the strategic materials by bringing the

producing region under its control, through the use of force if necessary. This dynamic gave rise, over time, to *empires*: geographically large political units ruled and controlled by a single ruling elite in which the subject population offered up their agricultural surplus to the ruler and the landowning elite, usually in the form of taxes and rents.

Towns and Cities in 1400

Although most of the world's population lived in the countryside, towns and cities of various sizes and functions did exist, and we can use the number and sizes of towns and cities as a very rough indicator of the overall wealth of a society (or to put it differently, of the ability of the peasantry to produce a surplus large enough to support those who did not grow their own food). A list of the twenty-five largest cities in the world in 1400 produces few surprises, in that most remain large cities today, but the world's largest urban populations in 1400 amounted to little more than 1 percent of the world's population.⁸ What may be surprising, however, is that nine of the world's largest cities, including the largest, Nanjing, were all in China. The second-largest city was in south India (Vijayanagar), and the third was Cairo. Only when we get to the fourth-ranked city (Paris) do we get to Europe, which did have five cities in the top twenty-five. Other large cities included Constantinople on the Mediterranean; Samarkand, the Central Asia link in east-west trade routes across Eurasia; Baghdad, likewise an important trading city; and Fez in Morocco, which played an important role in African trade routes.

Of course, these largest cities in 1400 (which ranged in size from 80,000 to nearly 500,000 at the top) represented but 1+ percent of the world population, while another 9 percent or so (or thirty million people) lived in towns and cities ranging from 5,000 to 75,000. Not surprisingly, most of those too were in Asia, with China, Japan, and India accounting for the most. In Europe, by contrast, the largest city in Germany was Cologne at just 20,000 people. The wealth of the world in 1400, as measured by the number and size of cities, thus was concentrated in Asia.

To villagers, these towns and cities were somewhat magical places where people with great wealth ate foods peasants could only dream of and wore clothing of such finery that it put their coarse cloth to shame, all without most of the elite doing any visible work. Of course, the taxes, tithes, and rents the peasants paid supported these towns and cities, and they knew it. So too did another group of people, the nomads, who eyed the civilizations with their cities and productive agriculture warily, but also with a certain envy, and who had the military ability to attack when necessary.

Nomads

The agriculturally based civilizations occupied the best land for agriculture throughout the Eurasian continent. The great grassland known as the steppe, stretching east to west across the continent, as well as the deserts and swamps, while not amenable to agriculture because of too little (or too much) water, were not uninhabited. On the steppe especially, groups of people obtained their living from the land by hunting and gathering and following their herds.⁹ For these nomads, mobility on horses was a way of life, taking their herds of horse, sheep, cattle, and goats wherever the grass was green. Their way of life was not completely self-sufficient, for they needed things that the cities produced—salt, pots and pans, textiles, other manufactured goods—trading in return horses, meat, honey, or other products they could gather and that people in the cities prized. Civilizations and nomads across the Eurasian continent thus had a symbiotic relationship—they depended on each other.

The relations between the two groups were for the most part peaceful, but the nomads could constitute fearsome fighting forces. As hunters, they were expert horsemen and archers. And when climate changes desiccated their grazing lands and threatened their food supplies, they were not averse to raiding the food supplies stored by the civilizations, whether they were cities or empires. Of course, ruling elites of civilizations had armies—and a duty—to protect the food supplies from raiding nomads. To those within the centers of the civilization, these nomads appeared to be the opposite of civilized: they had no cities, were crude and illiterate, and probably superstitious as well. In short, they were “barbarians.” And when the civilizations themselves weakened, for various reasons, they became susceptible not just to nomadic raids, but to invasion, destruction, or conquest, all of which happened. Notable examples include the fall of the Roman and Han Chinese empires (300–600 C.E.; not discussed in this book), and, as we will see shortly, the Mongol invasions of China and Europe in the thirteenth century. Of course, when the centers of “civilization” weakened, rulers sometimes incorporated nomadic warriors into their frontier armies, further weakening the civilization and opening it to conquest from within by partially acculturated nomads.

Nomads were not the only ones to challenge the civilizations. In the forests, swamps, brush, and mountains there were other groups, who, unlike the nomads, were often quite self-sufficient and could obtain everything they needed from their environment. They did come into contact with the forces of civilization though, especially during periods of population growth when peasant farmers or the empire sought new land to accommodate the larger population. The Chinese, for example, had a long history of contact with

these kinds of peoples, and in fact had come to classify them into two groups: the “cooked,” those willing to accept some of the trappings of Chinese civilization, and the “raw,” those who were not.¹⁰

Wildlife

Even though most of the weight of the world’s population lived in just a few highly developed islands of civilization, the intervening expanses were inhabited by differently organized people to be sure, but people nonetheless. Indeed, by 1400 humans had migrated through or to virtually every place on the globe. Of course the hunters and nomads who lived in the vast spaces outside the densely populated civilizations were very few and far between, leaving much room for wildlife of all kinds. Three examples will suffice.

Wolves roamed throughout most of Europe, as can be attested by *Grimm’s Fairy Tales*. But even more grimly, when human populations declined or hard winters made food precious for both humans and wolves, packs of wolves could—and would—enter the cities, as they did in Paris in 1420 and 1438, and even as late as the 1700s when the French went on a campaign to annihilate the species there “as they did in England six hundred years ago,” according to a contemporary writing about 1779.¹¹ In China, tigers at one time inhabited most of the region and periodically attacked Chinese villages and cities, carrying away piglets and babies alike when humans disrupted their ecosystem by cutting away the forests that provided them with their favored game, deer or wild boar. Tigers remained so plentiful in Manchuria that the emperor’s hunting expedition could bag sixty in one day, in addition to a thousand stags, and reports of tiger attacks on south China villages continued until 1800.¹² The greatest natural bounty, though, was in the New World, particularly North America, where the first European visitors described “unbelievable” numbers and sizes of fish, birds, deer, bear, and trees.¹³

Thus from 1400 to 1750, when the human population increased from 350 to 720 million, there was still plenty of room for wildlife of all kinds. Nonetheless, the relationship between the two populations clearly was inverse: the more people, the less wildlife, especially as those in the “civilizations” developed a desire for wearing furs (in China, Europe, and North America) or eating exotic fish and fowl. Great hunting expeditions to kill whales, tigers, bison, beavers, homing pigeons, sharks, fox—the list goes on—for their hides, their meat, their various other body parts, started then and continue to this day, except for those species already extinct or, in some parts of the world, protected.

The expansion of the human population on earth thus meant less land and hence habitat available for other species. Although we depend on the envi-

ronment for our survival, our species has been willing to sacrifice others for our *Lebensraum*.¹⁴ Sometimes the end for other species has come like a rifle shot, with the species wiped out without altering the rest of the physical environment, as when the wolves were eliminated from England, France, or Wisconsin, or bison from the Great Plains, leaving the forest or the plains intact—impoverished, but intact. At other times, the end for a species comes as a holocaust, where expanding human populations have burned and slashed entire ecosystems to turn them into agricultural fields, as happened to the South China tiger. However, with each of the great human population declines in the mid-fourteenth and then in the mid-seventeenth centuries, wildlife populations reestablished themselves and once again expanded. But since the mid-1700s, the human population of the world has steadily increased, putting pressure on all remaining wildlife.

Population Growth and Land

Population growth and decline each brought certain benefits and difficulties to a society. On the one hand, and as with any living organism, an increase in human numbers is an indication of our success in obtaining greater food energy from the ecosystem. Higher populations and greater densities made possible civilizations, cities, education, and trade, as well as a growing awareness and understanding of the human and natural worlds. Population growth thus can accompany improving conditions and rising standards of living for most people, at least up to a certain point, where the limits of land availability and the ability to feed the growing population was reached. In those instances, the human population could overshoot the capacity of the land to feed them, leading to deteriorating living conditions and greater susceptibility to death from disease and famine. As the population fell back, a better balance between the numbers to be fed and the amount of land available to feed them was reestablished.

A growing human population requires additional food and energy supplies to support it, and given the agricultural technology available in 1400, those increases could come from but three sources: bringing more land under cultivation, increasing the labor inputs on a given plot of land (including selecting better seed), or increasing the amount of water or fertilizer. In China over the period from 1400 to 1800, for example, the population almost quadrupled from 85 to 320–350 million, the increase being sustained almost equally by increases in the land under cultivation and by more intensive tilling and fertilizing of the land already under the plow.¹⁵

Of course bringing new land under cultivation implied human migration to new lands, fighting and displacing the wildlife as necessary, and also bat-

ting the “uncivilized” people of the mountains, forests, and bush. Some migrations, though, were easier than others, especially if the new lands were sparsely populated and poorly defended or the migrating people had the military might of their empire backing them (as was the case in China). Some areas, though, were for all intents and purposes off-limits; Europeans, for example, could not look too far east because the lands were already occupied by various strong nomadic peoples: Turks, Tartars, and Mongols all sent shivers of fear down the spines of most Europeans and Asians.

In summary, nearly all of the 350 million people living in 1400 were rural people producing food and raw materials for handicraft industries to sustain both themselves and a small ruling elite that took a portion of the harvest as taxes (to the state) and rent (to landowners). Peasant families often spun and wove textiles that they used both for themselves and traded in local markets for goods they themselves could not produce, and at times their textiles entered into some very long-distance trade circuits, as we will see shortly. With good climatic conditions and hence better harvests, peasant families might look to increase their size,¹⁶ especially if additional land were available nearby, or if their government encouraged more distant migration and would protect them from the wolves or tigers and nomadic invaders. If the population grew too much or too fast, overshooting the ability of the land to support them, a couple of poor harvests could spell famine and increase susceptibility to epidemic disease, as happened in the early 1300s, and would happen once again in the late 1500s and early 1600s.

Epidemic disease, famine, war, and other disasters kept human life expectancy much shorter than it is today. In many of the richest and most advanced parts of the premodern world, from China and Japan in East Asia to England and Germany in Europe, life expectancies at birth were 30–40 years,¹⁷ or half of what they are today for most of the developed world. Of course those life spans were short largely because infant and childhood mortality were high: women bore many children and were lucky if half survived to age fifteen. Once past the dangers of death from childhood disease, many people could expect to live into their sixties—under good agricultural conditions, that is.

Famine

Food shortages, dearth, and famine were an all too real part of life (and death) for most of the people living in 1400. It is of course all too easy to blame such disasters on “natural causes” alone. But in that time period 80–90 percent of the world was composed of one vast peasantry, rural people who produced the food and industrial raw materials for the society and who were obligated to

give up a certain amount of their harvest each and every year to agents of the state in the form of taxes and, unless they were in the small minority lucky enough to own their land free and clear, in the form of rent and labor services to the landowner.¹⁸ Throughout much of the most densely populated part of Eurasia (that is, in China, Europe, and India), peasant families gave up as much as half of their harvest to the state and landlords.¹⁹

In good or improving times, peasant families might be able to make ends meet, providing for their own subsistence needs and also meeting their obligations to the tax man and rent collector, and to produce a surplus that might be sold in the market. But what about those times when the harvest fell short? A “good” government or a “good” landowner might recognize that to take their regular share would push the peasant family below *subsistence levels*, and thus would lower or cancel taxes and rents for that year. But if the government or landowners either could not or would not—if they had debts to pay others, for instance—then the squeeze would be on. Indeed, Japanese landowners in the eighteenth century said of peasants that they were like sesame seeds: the more you squeezed, the more you got.

So, famine in peasant societies was not so much a “natural” as a “social” phenomenon.²⁰ This is important to understand because it is in this context especially that peasants developed concepts of their own about what rights they had in society, and under what conditions they could press them. The agrarian world that we have been considering thus was not made by the ruling elites, but came about as a result of the interactions, understandings, and agreements (both explicit and implicit) among state agents, landowners, and peasant producers.²¹

Peasant Revolt

Whether peasants would stand for circumstances that might cause famine or revolt against them depended in large measure on two factors. First, no matter how enraged peasants might be at cruel or life-threatening treatment by the state or landlords, if the government or lord had sufficient military force and was ready to use it—and the peasants knew that was the case—they might conclude that they had little choice but to endure, or flee, if they could. The second factor relates to the cohesiveness of peasant communities themselves. Even if force did not prevent them from acting, if the peasant community itself did not have the capacity for collective action, then they might just suffer in silence, and maybe even die over a long winter.²²

Both conditions were met in sufficient times and places for peasant revolts and other forms of resistance to the established order to have been a major part of the dynamics of the old regime. In Japan from 1590 to 1871, for in-

stance, there were over three thousand instances of peasant revolt, ranging from burning barns to taking up arms. China had fewer but larger-scale peasant revolts, especially in the mid-1600s and in the massive Taiping Rebellion of the mid-1800s. Russia too experienced massive peasant revolts, among the most famous the great Pugachev uprising in the 1700s, and France in some ways is the classic setting for peasant revolts, in particular those accompanying the French Revolution of 1789. England, Germany, and Italy in Europe too had histories of peasant revolt. Wherever peasants were under the thumb of ruling elites, it seems, they found ways to resist or to rebel, even if those acts seldom if ever resulted in a major change in how the society itself functioned.

Epidemic Disease

The 80 to 90 percent of the world that comprised this peasantry—whether in China, India, the various parts of Europe, or even Mesoamerica—thus supported the elites who governed, warred, ministered, and traded. The peasantry, in the words of one historian, thus made it possible for various forms of human “*macro-parasites*” to live off of them. Additionally, the entire human population was subject to epidemic disease carried by *micro-parasites* (e.g., the plague bacteria of the Black Death, the smallpox or influenza viruses, the bacteria causing dengue fever or dysentery, and all the other germs and pathogens that caused diseases we now cannot identify because they have since mutated or died away).²³

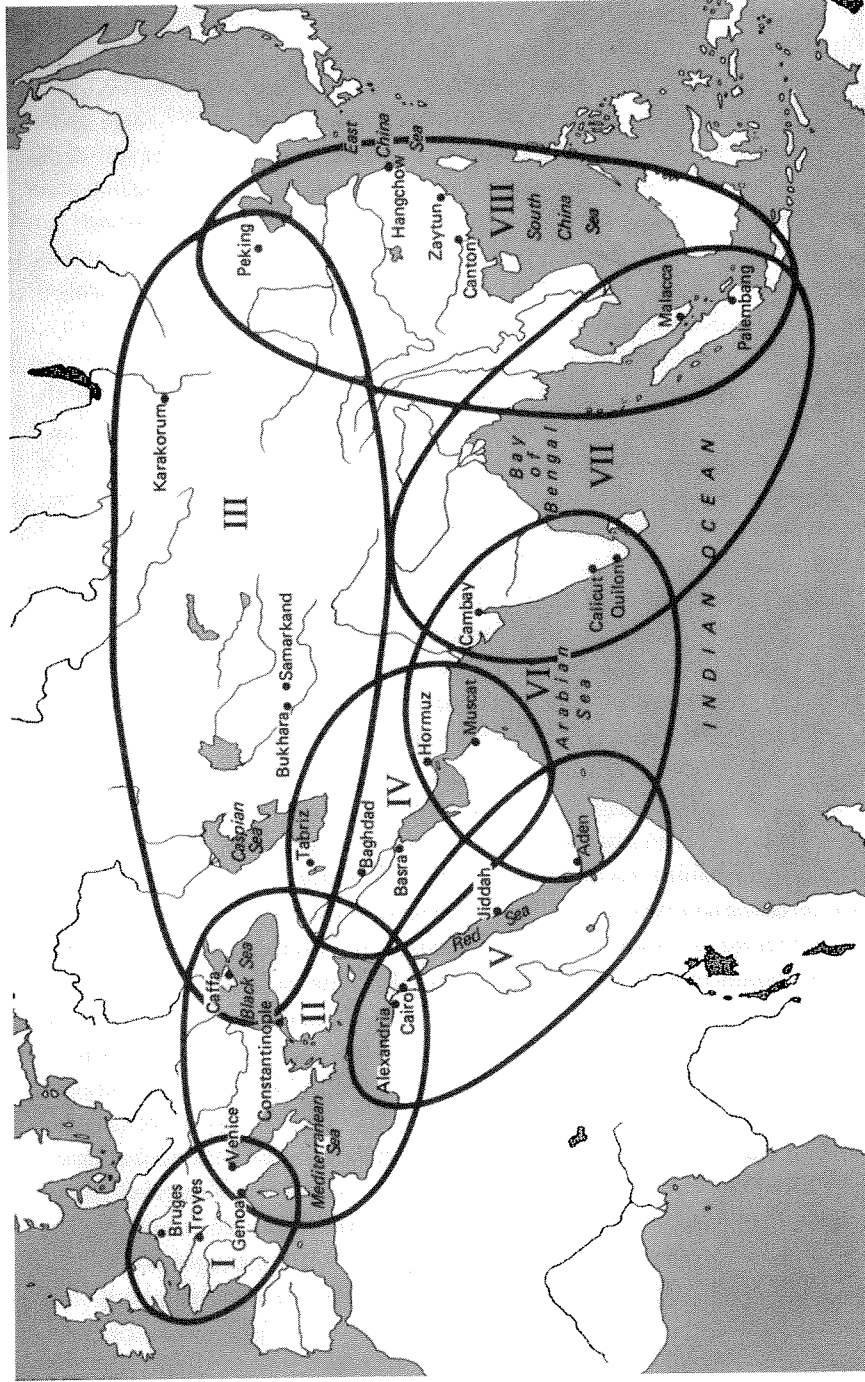
To be sure, the wealthy in both town and countryside had more ways of avoiding death from epidemic disease than the peasants or the poor of the towns and villages, but epidemics could—and did—affect entire populations. Epidemic diseases also traveled the world, slowly at first because of the slowness of trade and contacts between the centers of civilization, as in the period just after the collapse of the Roman and Han Chinese empires, when smallpox and the measles spread from their point of origin in Europe to China. As the world became even more linked together in the thirteenth century by long-distance trade, a single epidemic disease could—and did—move much more rapidly from one end of the Eurasian continent to the other: the Black Death spread from China to Europe in a matter of years, and once in Europe it engulfed nearly the entire region within three years from late 1347 to 1350. To understand how and why the Black Death could move so rapidly from China to Europe, and then spread within Europe, we need to understand the trading networks that linked most parts of Eurasia and made it possible for goods, ideas, and germs to travel from one end of the continent to the other.

The World²⁴ and Its Trading System

During the fourteenth century, the Old World—the Eurasian continent and Africa—had been connected by eight interlinking trading zones within three great subsystems.²⁵ The East Asia subsystem linked China and the Spice Islands in equatorial Southeast Asia to India; the Middle East–Mongolian subsystem linked the Eurasian continent from the eastern Mediterranean to central Asia and India; and the European subsystem, centered on the fairs at Champagne in France and the trading routes of the Italian city-states of Genoa and Venice, linked Europe to the Middle East and the Indian Ocean. Moreover, these subsystems overlapped, with North and West Africa connected with the European and Middle East subsystems, and East Africa with the Indian Ocean subsystem. (See map 1.1.)

Three primary trade routes linked the subsystems, enabling us to talk about an integrated trading system: all terminated in the eastern Mediterranean. The northern route went up through the Black Sea, and then overland through the Mongol empire, with Mongol blessing and protection, all the way to China. It was via this route, for instance, that Marco Polo ventured to China in the late 1200s. A central trade route went through Baghdad (controlled after 1258 by the Mongols) and then via the Persian Gulf into the Indian Ocean, thereby giving traders access to the spices and products of east and Southeast Asia. A southern route went from Cairo, controlled by the Mamluk empire, overland south to the Red Sea, and from there into the Indian Ocean as well.

This trading system that linked most of Afro-Eurasia in the thirteenth century is remarkable for a number of reasons. First, that it existed at all is surprising to historians who have focused their attention upon one part or the other of the world—China, India, or France, for example. Until quite recently historians have practiced their craft taking current nation-states (and their historical development) as their unit of analysis, rather than adopting a more global approach. Even historians who pioneered a more global perspective on the period since 1500 and invented the term “world system” argued that the world system only came into being following the voyages of Columbus and da Gama; prior to that empires tended to dominate the global landscape with little, if any, contact among them.²⁶ Even if there were trade among these empires, they argue, it tended to be only for precious goods destined for a small ruling elite. That many historians now recognize the existence of this previous world system thus raises questions about the connection between it and the one that developed after 1500: Was the post-



Map 1.1. The Eight Circuits of the Thirteenth-Century World System

Source: Janet L. Abu-Lughod, *Before European Hegemony: The World System A.D. 1250–1350* (Oxford: Oxford University Press, 1989), 34.

1500 system a wholly new creation, or did it arise out of the elements of the preceding one? I tend toward the latter interpretation, as will become clearer in the next chapter.²⁷

The other quite remarkable feature of the thirteenth-century world system is that it functioned without a central controlling or dominating force. To those who conceive of the modern world system as growing under the domination of a single state or group of states, the idea that a system could work without a controlling center is somewhat novel.²⁸ To be sure, each of the trade circuits did have a predominating group—the Italians in the European system, Arabs in the Middle Eastern circuit, and Chinese in the East Asian circuit—but no one of those controlled the whole system. Force thus was not used to keep goods flowing throughout the system, although rulers in various parts did offer protection to traders, caravans, or ships. Indeed, most of the rulers recognized that trade was valuable—especially when they could tax it—and hence encouraged and protected it, not wanting to kill the goose that was laying golden eggs by trying to seize by force the goods of traders from another part of the world.

The world in the fourteenth century thus was polycentric: it contained several regional systems, each with its own densely populated and wealthy “core,” surrounded by a periphery that provided agricultural and industrial raw materials to the core, and most of which were loosely connected to one another through trade networks. Moreover, I will argue, the world remained polycentric until quite late in our story, around 1800, when Europeans put into place the elements necessary to colonize most of the globe, in the process creating a global system with a highly developed core and an underdeveloped periphery. Even then, some regions—especially parts of East Asia—remained highly resistant to being fully colonized. The importance of conceiving of the world as having been polycentric rather than dominated by a single center will become more evident as we proceed with this narrative. Suffice it to say here that a polycentric conception of the world will attune us to voices and actions coming from several parts of the world, and not just Europe. It is, in short, a crucial part of a non-Eurocentric narrative of world history.

Finally, the Afro-Eurasian system circa 1300 is called a “world system,” not because it literally spanned the entire globe, but because it was greater than any one given part.²⁹ Indeed, for all practical purposes, it was a world system, for it involved all those parts of the world where people traded and thus did know something, no matter how little, about one another. Obviously not yet connected to the Afro-Eurasian trading system were the Americas and the empires arising independently there, or Australia and the Pacific Islands.

The method I have used to describe the world, focusing on the linkages

among the various regional systems, emphasizes the role of trade and merchants in forging those links. To be sure, the role of merchants and trade in creating the world system was important. As I will show in more detail in the next chapter, not only did trade allow different parts of the world to sell what they could best produce or gather, merchants also served as conduits for cultural and technological exchange as well, with ideas, books, and ways of doing things carried in the minds of the merchants while their camels or ships carried their goods. Additionally, epidemic disease and death, soldiers and war also followed trade routes, as we can see by examining the world's experience with the Black Death in the mid-1300s, after which most Eurasians shared a common disease pool.

The Black Death: A Mid-Fourteenth Century Conjunction

The mid- to late 1300s constituted a serious crisis in world history.³⁰ The collapse around 1350 of the Mongol empire, which had served as the glue holding much of Eurasia together, was part of that crisis, and so too were the ravages of the Black Death, a virulent epidemic disease more commonly known as the bubonic plague, which killed tens of millions of people in the mid-1300s. The reasons why the Black Death occurred when and how it did are complex, as are its consequences. But we can begin to understand it by applying the conceptual tool of “conjunction” discussed in the introduction.

The bubonic plague is a result of a bacillus, that is, a disease-producing bacterium (*Pasteurella pestis*), that was endemic among burrowing rodents in southwestern China. The bacteria can live within the rodent populations without being transmitted to humans, but if passed to humans through flea bites, within days it usually led to the death of the human host. People who lived near those infected rodent populations developed taboos to keep themselves at a safe distance from the flea- and bacteria-carrying rodents. Not so those ignorant strangers or newcomers to an infected region, for that is what happened in southwestern China in the 1330s. Mongol troops campaigning there apparently carried the fleas or an infected rodent into the more densely populated areas of China, setting off an epidemic in 1331 which, according to Chinese sources, in some places killed two-thirds of the population.

The plague would have remained a Chinese dilemma and not such an important part of world history if several other unrelated things had not happened. First, a rodent host population in Europe had to grow and live among humans: that happened when, for whatever reasons, the black rat (*Mus rat-*

tus) took up residence in the attics and rafters of people's houses. Second, the European population had increased substantially from about 1000 C.E. on, with shortages of land and forest for fuel being notable by 1300. Then, the climate worsened, with winters becoming longer and harder and the growing season shorter, putting the population under severe stress. Circumstances were ripe in Europe for some kind of disaster: if it wasn't the plague, it might have been something else, maybe not at the same time or place, but surely the kindling had been laid and all that was needed to set it afire was a single spark. That it was the plague, and that it spread rapidly, was occasioned by three additional factors.

First, the Mongol empire spanned almost the entire Eurasian continent, and their communications system took advantage of a northerly route across the vast, treeless steppe where their horses could transmit messages very rapidly. Moreover, that steppe ecosystem harbored a certain burrowing rodent that lived in vast underground “cities” and was susceptible to the plague bacillus. Soon after the plague broke out in 1331 in China, Mongol riders heading west no doubt transmitted the plague to the rodents on the steppe, spreading it across Eurasia.

Second, Europeans had developed a regional trading network linked by the activities of Italian merchants from the city-states of Genoa and Venice. Still, the plague might not have spread to Europe had it not been for the third circumstance. The trading city of Caffa, located on the Black Sea, was the link between the trans-Eurasian trade routes: it was the western terminus for caravan trade from China and the eastern terminus for trade carried on Venetian and Genoese ships, both of which apparently docked at Caffa in December 1346. At the time, Caffa was being besieged by the forces of a Mongol prince, and the city might have fallen had not the plague broken out among the Mongol troops, killing most and forcing the prince's withdrawal. The plague might have stopped there had not fleas, rodents, or infected Italians climbed aboard their ships bound for home. When they reached there in December 1346, the plague was let loose in Europe, and it spread rapidly to other towns via the trade routes that had been established, especially the shipping routes. Not only did the black rats now living in European houses spread the plague to people, infected humans too could spread it directly to others by coughing. The plague raged across Europe. By 1350 it had spread all the way to Sweden and then that winter on to Moscow.

Like famine, the plague was not a purely “natural” phenomenon either, but instead required a host of circumstances to come together for it to have such a major impact on the world and its history. The population of Europe plum-

meted from 80 to 60 million in just a few years, while in China, the plague coupled with civil war in the 1350s and 1360s saw the population tumble from 120 million in 1200 to 85 million by 1393. Although few records exist to confirm it, the plague probably also decimated the Islamic world, India, and the nomadic Mongol peoples of the steppe as well.³¹

The death toll was high and it etched a permanent memory in the minds of the living. But despite the horror of corpses piled high in village lanes, carted off for burial, or set afire on rafts pulled out to sea, those living fifty years later in 1400 did have more and better land, more fuel, and more resources of all kinds, even if the tempo of trade among the various regions of the global trading system had slowed considerably. The story of the fourteenth-century Black Death thus not only illustrates the impact of epidemic disease on human populations and the course of world history, it also demonstrates the very early connectedness of world regions, in this case Europe and East Asia. Not only did commodities, people, and ideas ride the trade routes, so too did horrifying disease.

Conclusion: The Biological Ancien Regime

This balancing act of people fending off or dying from both macro- and micro-parasites—elites living off peasants, civilizations fighting off or losing to nomadic invaders, and germs multiplying inside of and then killing nomads and city dwellers alike—has been called our “biological ancien regime,” or biological “old regime.”³² In this world—the world not just of 1400 but the world for millennia before and then afterward until well into the nineteenth century (as we will see in chapter 5)—the human population lived very much in the environment and had to be very mindful of the opportunities and limits it placed on human activity. As a result, the human population did not increase so much or so fast as to threaten the environmental basis for society, except in a few cases,³³ or until later developments shattered the biological old regime and opened up new possibilities, but that is a story for later in this book.

Agriculture not only provided the food for the entire society, but most of the raw materials for whatever industry there was, especially textiles for clothing. In China, silk and cotton reigned supreme; in India, cotton and silk; and in northwestern Europe, wool: the raw materials all coming from farms. Fuel for processing these materials, as well as for keeping warm, also came from forests. To this extent, the biological ancien regime was organic, that is, it depended on solar energy to grow crops for food and trees for fuel. The biological old regime thus was one that limited the range of possibilities for people and their history because virtually all human activity drew upon *renewable* sources of energy supplied on an annual basis from the sun.

All living things need food for energy to live, and increasing amounts of both to sustain larger populations. What agriculture allowed people to do, in effect, was to capture natural processes and to channel that energy into the human population. In the biological old regime, agriculture was the primary means by which humans altered their environment, transforming one kind of ecosystem (say, forest or prairie) into another (say, rye or wheat farms, rice paddies, fish ponds, or eel weirs) that more efficiently channeled food energy to people. The size of human populations was thus limited by the amount of land available and the ability of people to use the energy from that land for their purposes.

Regardless of whether the Old World population was pushing environmental limits by about 1300, as some historians think, the Black Death drastically reduced the global population, in particular in China and Europe. Then, from about 1400 onward, the human population of the world began increasing again, and, as we will see, 350 years later once again was reaching some of the limits imposed by the biological old regime. To be sure, by 1750 the population of the world had reached some 750 million people, twice that of the medieval maximum of 360 million in the year 1300.

To support twice as many people as before, something had to change in terms of the relationship of people to the availability of land and their efficiency in working it. On the one hand, Europeans were to encounter a whole new world, the Americas, and to populate it. Although this New World was already quite populated in 1400 and the land already used by native Americans, a massive biological exchange would radically alter those relationships, making the Americas a relatively depopulated world by the year 1600. We will examine that story in chapter 3. On the other hand, global trading relationships became reestablished, allowing a considerable increase in overall production and productivity as specialization allowed people in one part of a regional trading network to produce goods that their environment was especially suited to, and to trade via markets with countless others who were doing the same thing. Market specialization spread, thereby allowing economies throughout the world to produce more than they ever had in the past, yet without escaping the limits of the biological old regime. How those global networks became reestablished is in part the story of the next chapter.

Notes

1. The phrase is from Fernand Braudel, *Civilization and Capitalism 15th–18th Century*, vol. 1, *The Structures of Everyday Life*, Sian Reynolds, trans. (New York: Harper and Row, 1981), chap. 1.

2. Because no one actually took a census, these population figures are reconstructions by historical demographers, and there is much discussion and debate about all matters having to do with the size, distribution, and dynamics of human populations in the period covered by this book. Braudel's discussion in the chapter mentioned above is as good a place as any to enter into the uncertainties about the size of premodern populations. See also Colin McEvedy and Richard Jones, *Atlas of World Population History* (New York: Penguin Books, 1978).

3. Climatologists have identified several "forcing" factors, ranging from astronomical cycles to volcanic dust and cycles in the sun's activity. On how climate works and its impact on human society, see H. H. Lamb, *Climate History and the Modern World* (London: Methuen, 1982). For a detailed examination of how volcanic activity affected climate and human society, see William Atwell, "Volcanism and Short-term Climatic Change in East Asian and World History, c. 1200–1699," *Journal of World History* 12, no. 1 (Spring 2001): 29–98.

4. Until recently, research on the effect of climate change on harvests was limited to marginal areas such as Scandinavia. My own work on South China has shown that climate changes can in fact affect harvests in even semitropical areas. However, that climatic conditions affected human population dynamics does not imply a kind of geographical determinism, that is, that human societies are determined by the nature of the climate and geography in which they find themselves. Rather, people are amazingly adaptable and can create social institutions to compensate for the vagaries of climate or geography. Eighteenth-century China, for instance, had both government granaries, which dispensed grain in times of need, and markets, which moved grain from areas of surplus to those of deficit, both of which began to detach China's population dynamics from any simple response to climatic variations, but that began to happen only in the late 1700s. See Robert B. Marks, *Tigers, Rice, Silk and Silt: Environment and Economy in Late Imperial South China* (Cambridge: Cambridge University Press, 1998), chaps. 6–8.

5. Braudel, *Civilization and Capitalism*, vol. 1, 56–57. Braudel does not include the Aztecs and Incas in his list of civilizations because they did not have iron, the wheel, and plows or large draft animals. I include them because despite lacking these, they did create empires with cities, social classes, and, in the case of the Aztecs, writing, all of which I think are emblematic of civilization. See also Jared Diamond, *Guns, Germs, and Steel* (Cambridge: W. W. Norton, 1998), for additional discussion of why the Old World had domesticated draft animals and the New World had not.

6. For an interesting discussion of the dating and why food production emerged in these areas, see Jared Diamond, *Guns, Germs, and Steel*, esp. chaps. 4–10.

7. For an excellent discussion see Clive Ponting, *A Green History of the World: The Environment and the Collapse of Great Civilizations* (New York: Penguin Books), chap. 4. Ponting prefers the term "transition."

8. Estimating city size in 1400 is no more scientific than estimating the total population. Nonetheless, Tertius Chandler has compiled lists of the largest cities in the world in his compendium, *Four Thousand Years of Urban Growth: An Historical Census*, 2d ed. (Lewiston: Edwin Mellen Press, 1987). Although one might take issue with his figures, what interests us more at this point is the relative ranking and geographic distribution of these cities.

9. Following G. W. Hewes, Braudel lists twenty-seven identifiable groups of hunter gatherers, seventeen nomadic peoples, and an additional eighteen primitive agriculturists. *Civilization and Capitalism*, vol. 1, 56–60.

10. For a fascinating discussion of the "cooked" and the "raw" in the context of Chinese expansion into a frontier area, see John Shepherd, *Statecraft and Political Economy on the Taiwan Frontier 1600–1800* (Stanford: Stanford University Press, 1993).

11. Cited in Braudel, *Civilization and Capitalism*, vol. 1, 66–67.

12. See Robert B. Marks, *Tigers, Rice, Silk, and Silt: Environment and Economy in Late Imperial South China* (Cambridge: Cambridge University Press, 1998), chap. 10.

13. William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York: Hill and Wang, 1983).

14. This German term was used by the Nazis after World War I to express their desire, fanned by a sense that the German population had expanded beyond the ability of the German territory to sustain, to expand at their neighbors' expense. It seems an apt term to describe what humans in general have felt about expanding their territory at the expense of the natural world.

15. There is much scholarly debate on the size of China's population and its rate of growth from 1400 to 1850. The baseline was established by Ping-ti Ho in 1953 in *Studies on the Population of China* (Chicago: University of Chicago Press), followed by Dwight Perkins, *Agricultural Development in China* (Chicago: Aldine, 1968). Where G. William Skinner thinks the generally accepted figures for 1850 of about 420–450 million have to be reduced to about 380 million ("Sichuan's Population in the Nineteenth Century: Lessons from Disaggregated Data," *Late Imperial China* 8, no. 1 (1987): 1–80), F. W. Mote thinks the population in 1600–1650 and later was much larger than previously believed. See his *Imperial China 900–1800* (Cambridge: Harvard University Press, 1999), 743–747, 903–907.

16. The question of whether and how peasant farming families in Europe and elsewhere decided to limit their size is an important question that will be discussed more when we discuss the Industrial Revolution in chapter 5.

17. See Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy* (Princeton, N.J.: Princeton University Press, 2000), 36–40.

18. In much of Europe, the Church "tithed" the peasants too, expecting one-tenth of their produce. Monasteries could be large landowners as well.

19. This circumstance coincided with the very origins of civilization and persisted for many years into the twentieth century. For a brief and readable history, see Clive Ponting, *A Green History of the World: The Environment and the Collapse of Great Civilizations* (New York: Penguin Books, 1991), esp. chap. 6.

20. For a full development of this argument, see Amaryta Sen, *Poverty and Famines: An Essay on Entitlement and Deprivation* (Oxford: Clarendon Press, 1981). See also David Arnold, *Famine: Social Crisis and Historical Change* (New York: Basil Blackwell, 1988).

21. On the agency of peasants in the making of their own world, see James C. Scott, *Domination and the Arts of Resistance: Hidden Transcripts* (New Haven: Yale University Press, 1990). A similarly interesting case was made about black slaves in North America by Eugene Genovese, *Roll, Jordan, Roll: The World the Slaves Made* (New York: Pantheon Books, 1974).

22. There is a wonderful literature on peasants and peasant rebellion in agrarian societies. See James C. Scott, *The Moral Economy of the Peasant* (New Haven: Yale University Press); Eric Wolf, *Peasant Wars of the Twentieth Century* (New York: Harper and Row, 1969); and Barrington Moore, *The Social Origins of Dictatorship and Democracy: Lord and Peasant in the Making of the Modern World* (New York: Beacon Press, 1966).

23. The idea of macro- and micro-parasites is developed in William McNeill, *Plagues and Peoples* (New York: Anchor Books, 1976).

24. For the time being, this formulation excludes the Americas, southern Africa, and much of Oceania.

25. This description is based upon Janet Abu-Lughod, *Before European Hegemony: The World System A.D. 1250–1350* (New York: Oxford University Press, 1989). A summary is available from the American Historical Association as a pamphlet, *The World System in the Thirteenth Century: Dead-End or Precursor?* (Washington, D.C.: American Historical Association, 1993?).

26. Immanuel Wallerstein, *The Modern World-System*, 3 vols. (New York: Academic Press, 1974–89).

27. Abu-Lughod and Wallerstein see the post-1500 world-system as being something new, created by Europeans, and not related to the previous one.

28. The example of the Internet, though, should sensitize us even more to the possibility that huge, complex organizations can develop without any central control. To create a Web page, for example, one need not seek the permission of anyone, other than registering a domain name.

29. Immanuel Wallerstein describes the capitalist “world-system,” with a hyphen, in *The Modern World-System I: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century* (New York: Academic Press, 1974), 15. His use of the term “world-system” means specifically the world-system that he argues emerged first in Europe and then was spread by Europeans across the globe from 1492 on. Others use the term “world system” without a hyphen to indicate something similar, yet different, such as the “polycentric” world system I have been describing (i.e., one that was a “world” but not created, diffused, or necessarily controlled by Europeans).

30. This section is based primarily on McNeill, *Plagues and Peoples*, chap. iv.

31. Michael Dols, *The Black Death in the Middle East* (Princeton, N.J.: Princeton University Press, 1977).

32. The term is used both by Braudel, *Civilization and Capitalism*, vol. 1, 70–72, and Ponting, *A Green History of the World*, chap. 12.

33. For examples, see Ponting, *A Green History of the World*, chaps. 1, 5, and 17.

CHAPTER TWO



Starting with China

Historians agree that the voyages of Christopher Columbus across the Atlantic in 1492 and of Vasco da Gama around Africa’s Cape of Good Hope into the Indian Ocean in 1498 constitute important developments in the emergence of the modern world. Indeed, they were. Where historians disagree is *how* important they were: Did they represent a new era? Did they really change all that much? Eurocentric interpretations tend to see them as major steps taken toward the inevitable rise of the West. Some, on the other hand (myself included), think it is important to place those voyages of discovery in a broader global context of the real structure of wealth and power in the world around 1500. From that perspective, the Indian Ocean can be seen as the most important crossroads for global exchanges of goods, ideas, and culture, with China, India, and the Islamic Near and Middle East meeting there as the major players, and Europe as a peripheral, marginal player trying desperately to gain access to the sources of wealth generated in Asia. Our story in this chapter thus starts in Asia, with China.

China

When the founding emperor of China’s Ming dynasty (1368–1644) died in 1398, succeeding him to the throne was not one of his sons, but his grandson. The emperor had wanted his eldest son to succeed him, to establish a firm principle of primogeniture to be followed for the rest of the dynasty, but when that son died, the emperor anointed his eldest son’s eldest son as heir to the throne. This decision did not sit well with the emperor’s fifth son, the Prince of Yan, a man with impressive military credentials, who