

# The World That Trade Created

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## Introduction

When fifteenth-century China began replacing depreciated paper and copper currency with silver, it set into play forces that would affect remote peoples on five continents. The Chinese traded their silks to the British and the Dutch who bought them with Spanish pesos that had been minted by African slaves in what is today Mexico and Bolivia and mined by indigenous peoples recruited through adapted forms of Incan and Aztec labor tribute. Some of the silver took the more direct route from Mexico to China via the Philippines on Spain's Manila Galleons. European pirates hovered around America's Caribbean and Pacific coasts, in the Mediterranean, and off the east coast of Africa where they struggled with Arab and Indian corsairs who coveted the silver cargos and the silk and spices that they purchased.

The silver found its way east also through Muslim and later Christian purchases of coffee in Yemen's Red Sea port of Mocha, the world monopoly producer for more than a century. Pilgrims to Mecca spread the taste for coffee from Morocco and Egypt to Persia, India and Java, and the Ottoman Empire. Finally France's Louis XIV in his soirees introduced his Catholic aristocracy to the Muslim drink, served on Chinese porcelain, sweetened with sugar grown on the slave plantations of the African Atlantic island of Sao Tome and later Brazil, and followed by a smoke of Virginia tobacco. Some noblemen preferred chocolate, a drink of the Aztec nobility so precious that cacao beans served as money, while the English came to favor Chinese tea, also turned into coin in Siberia.

Many lands and cultures were swept into the vortex of the world economy, but that did not mean that they passively accepted its terms. In 1770, a French trader in Senegal was frustrated with local African merchants who, far from readily accepting baubles and beads, refused to trade slaves even for French furniture. They demanded Dutch or British chairs and bureaus, which they found more stylish. At roughly the same time, British merchants in Canada were unable to sell Virginian tobacco to the Iroquois; the Iroquois had already acquired a taste for African cultivated Brazilian tobacco and accepted no substitutes in exchange for the beaver pelts they offered for the elegant garments of northern Europe.

In Naples, earlier in the century, enraged consumers threw a shipload of potatoes overboard, convinced that the Peruvian tuber was poison. At the same time, fashionable men and ladies in London delicately sprinkled grated potato on other foods, believing that the tuber was an aphrodisiac.

Clearly the world economy has connected myriads of far-flung peoples for a long time. Although globalization has today reached unprecedented proportions, there is really nothing new about the New World Order. Nor is diversity a recent invention. The object of this book is to describe, through a series of stories, the long-standing inter-connectedness of the world. We attempt to wed the insights of world systems analysis--that the local must be understood in its global context--with the perspective of local studies that see variation and local agency shaping the global.

The stories included here began as articles in a column, "Looking Back," which we have been writing for the business magazine *World Trade* for more than seven years now. The column focuses on the history and the creation of the world economy. Will Swaim originated the column. Several of his pieces are included in this volume. Steven Topik and then Kenneth Pomeranz took to writing it, which they do to this day.

This book is not simply a collection of the articles, however. Rather, it is unified by several central propositions on the nature of the world economy and the forces that shape it. We reject a Eurocentric teleology that sees Europeans as the prime movers and everyone else responding to them; instead the world economy is long-standing and non-Europeans played key roles in its development. To the extent that Europeans had advantages, they often came as much from the use of violence or from luck (as when European-borne diseases devastated New World societies, opening vast territories for conquest). Only in the latter part of our period did Europe clearly have superior productive technology, and it is not clear that it ever had a unique amount of entrepreneurship or social flexibility. Consequently, politics have been as central to shaping international commerce as economics have been. The market structures that are basic to our world were not natural or inevitable, always latent and waiting to be "opened up"; rather, markets are, for better or worse, socially constructed and socially embedded. They required a host of agreements on weights, measures, value, means of payment, and contracts that have not been universal nor permanent, plus still more basic agreements about what things should be for sale, who was entitled to sell them, and which people could haggle about prices (and settle disputes without drawing swords) without compromising their dignity in the eyes of their neighbors. In the process of negotiating these new rules of conduct, the very goods being bought and sold sometimes became the new markers of status and carriers of meaning. Thus "natural" uses and advantages clashed with human-made meanings--as when millions of people resisted the introduction of the potato--and associations so deeply embedded that they probably seemed natural were gradually reversed: over time, chocolate became associated with children, sweetness, and domesticity rather than with warriors, girding for battle, and religious ecstasy. In other words, goods themselves have "social lives" in which their meanings, their usefulness, and value are in flux; "demand" and "supply" are culturally determined by people with loves, hatreds, and addictions, not by reified "market forces."

Moreover, it would be a mistake to assume that pomp and role-playing can be clearly separated from a supposedly more basic level of utilitarian behavior. Thus the Chinese tribute system helped define upper-class style, set rules for various kinds of trade, and conferred enormous value to certain goods that rulers obtained in those exchanges, and so provided them with gifts that helped mark them as important patrons for other aristocrats back home: it was able to play some of the roles we

associate today with the World Trade Organization or even the UN (helping to stabilize rulers by recognizing them) precisely because it also played some of the roles now dispersed among fashion designers, elite schools and universities, and international media companies. Success in this complex social, political, and economic arena came to the successful, not necessarily to the most virtuous, hard-working, or clever. That is, the world economy has not been a particularly moral arena. Slavery, piracy, and sale of drugs have often been much more profitable than the production of food or other staples. Finally, it is necessary to understand both the local specificity of a transaction or event as well as its international context to appreciate its importance.

We eschew a Eurocentric position while also avoiding simple-minded anti-imperialism. That is, Europeans and North Americans were neither especially gifted, nor especially vile. Rather than focusing on just European trade with the rest of the world or concentrating on one area, we look at numerous areas and their interactions. We are telling the story of the ebbs and flows of the creation of the world economy, done by people with cultures, not by homo economicus or by capital itself. The creation of trade conventions, variations in knowledge and goals, the inter-linking of politics and economics, social organization, and culture all are given attention.

The more things we insist are connected, the more impossible it becomes to describe them comprehensively. Rather than attempt the impossible task of covering the development of the entire world economy over six centuries, we have chosen seven central topics around which to organize chapters; what we take to be the major issues and debates relating to a topic are laid out in an introductory essay. Each chapter then contains a set of brief case studies, which are meant to be illustrative, not exhaustive. Often they are based on the insights of other scholars, though a fair number derive from our own original research or our "take" on lively debates. (We have included a brief bibliography at the end of the book.) Rather than providing the "last word" on any topic, these articles seek to open up discussion, encouraging people to think in different ways about various parts of our world that we often take for granted or assume have always existed and needed only to be "discovered," and to question widely shared (though often implicit) stories of how new ways of making and trading things born in early modern Europe knit together (for better or worse) a world that had previously been composed of separate societies often assumed to have been isolated from each other. Instead we emphasize that complex cross-cultural networks with many centers already existed: the ways in which they were used, reconfigured, and sometimes destroyed is an essential part of understanding the new networks which came to center on Amsterdam, London, New York, or Tokyo.

The chapters are organized by subjects and chronologically. Thus, we begin with the early modern markets and the institutions and conventions necessary for them to function. Then we discuss the role of violence in capital accumulation and market formation. This includes state-directed repression, private initiative, and "outlaws" such as pirates. The third chapter focuses on drugs such as coffee, tobacco, and opium and their contribution to stimulating long-distance trade. Next, we look at the variety of goods that became commodities, from the commonplace potato, corn, to the coveted gold, silver, and silk, from mundane but useful industrial raw materials such as rubber to the bizarre such as the cochineal bug. Chapter 5 examines the role of transportation improvements in linking up distant markets and intensifying trade. The next section considers features of the modern world economy such as standardization of money, measures, and time, the creation of trade conventions, and corporations. Finally, we discuss episodes of industrialization.

Pomeranz was trained as a historian of China, Topik as a historian of Latin America; each has more recently expanded into writing (for both scholarly and general audiences) and teaching on topics that transcend these regional boundaries. In writing this book, we have allowed each author to present the topics he knows best and to make his own decisions about what to emphasize in the case studies he originally wrote. We have discovered in the chapters themselves a general unity of outlook, which we have tried to systematize in the jointly written chapter introductions, but have not insisted on precise agreement on each point in each article, or on a checklist of particular examples that "must" be included. The result, we hope, is a set of lively vignettes that can be read separately, but which the longer, more synthetic essays reveal to add up to more than just the sum of the book's parts, just as the world economy, while undoubtedly composed of parts worth study in themselves, is more than the sum of those parts. In moving back and forth between the local and the global, the meaning of each is enriched.

## **Chapter 1: The Making of Market Conventions**

Humans might be smart, but there is little evidence that we are by nature "economically rational," that is, that human nature drives people to maximize their independent welfare by accumulating as many material goods as possible. Many of us remember Adam Smith's dictum that it was a basic part of human nature to "truck and barter"--so basic, according to Smith, that this tendency had probably developed along with the ability to speak. Indeed, modern economics has made this a basic principle for analyzing human behavior. But Smith's juxtaposition of trade with speech has an implication that his modern disciples have often forgotten--that trade, like speech, could sometimes serve *expressive* ends. Acquiring a particular good, or sending it to others was (and still is) sometimes a way of making a statement about who a person or group was or wanted to be, or about what social relationships people had or desired with others, as much as it was a way of maximizing strictly material comfort. And because economic activities are social acts, they bring together groups of people who often have very different cultural understandings of production, consumption, and trade.

It is certainly true that people have traded things for thousands of years: archeological evidence of the exchange of shells, arrowheads, and other goods over long distances (and thus of geographically specialized production) goes back well before any written records. But in most cases we can only guess at the motives and mechanisms of trade, and of the way in

which the exchange ratios between different goods were determined. We have evidence that even in ancient times there were some markets in which multiple buyers and sellers competed and prices were set by supply and demand; but we also have a great many cases in which exchange reached a fairly large scale while governed by very different principles. Where supply and demand did set prices--as appears to have been the case, for instance, for many goods in ancient Greece, and at roughly the same time in China--the exchange value of goods--what they could fetch in other goods--became more important than their inherent usefulness (use value) or their status. But even price-determining competitive markets were affected by the fact that they were understood to be just one of various ways of exchanging. In the second century B.C. E., the Chinese emperor held a debate at court about whether the state (and the people, though he cared less about them) were best served by competing merchants or government monopolies over crucial goods such as salt and iron; and though the ruler's decision for monopoly could never be fully implemented even for these goods, the debate reverberated through the centuries, shaping notions of what was and was not acceptable behavior both for unregulated merchants and their would-be regulators.

Everywhere it took a very long time for the concept of prices settled by supply and demand to overcome more traditional notions of reciprocity (equal exchange of goods and favors), status bargaining, which was more ritualistic trading between acknowledged unequals, or Aristotle's notion of a just price, set not by barter in the market but rather by ethical notions of a moral economy, of just exchanges.

Some people resembled the fleet Ouetaca of Brazil. As we see in reading 1.7, they were what we today unkindly call "Indian givers." The chase after the exchange was as important as the actual exchange itself. Both parties mistrusted the other and there was only a very dim sense of property values.

Others were like the Brazilian Tupinamba, who thought the French traders "great madmen" for crossing an ocean and working hard in order to accumulate wealth for future generations. Once the Tupinamba had enough goods, they instead spent their time, according to a Jesuit priest, "drinking wines in their villages, starting wars, and doing much mischief." And among the Kwakiutl of the Pacific Northwest, giving large amounts of goods away could be either a way of procuring witnesses to one's accession to a new rank (and of outcompeting for that rank people who could not assemble enough goods to give away fast enough) or a way of deliberately embarrassing a rival; but whether the purpose was to proclaim solidarity or hostility, the giver was the winner, and goods were accumulated in order to get rid of them on the right occasion.

Even large, sophisticated civilizations were often not based on market principles. The storied Inca of Peru (see reading 1.6) knit together millions of people over thousands of miles in a prosperous, strong state that seems to have had no markets, no money, and no capital. Instead, trade was based upon the familial unit known as the *ayllu* and overseen by the state. Reciprocity and redistribution were more guiding concepts than profit and accumulation. People worked hard to survive and to fulfill social and cultural obligations, not to get rich.

The Aztecs and Maya of Mexico also had great empires that engaged in long-distance trade. The Aztecs enjoyed an enormous marketplace in their capital city of Tenochtitlan (today Mexico City), which hosted as many as ten thousand shoppers and sellers at a time. The Maya, on the other hand, apparently had no local markets in their considerable cities. Both empires traded goods in an area that stretched from New Mexico to Nicaragua, the equivalent distance in Europe from its northernmost to furthest southern point. Yet long-distance trade was completely separate from the local markets of Aztec cities. Long-distance traders dealt in luxury goods as emissaries of their imperial aristocracies. They were essentially state bureaucrats. These sophisticated long-distance traders would completely disappear once their states collapsed and European merchants arrived.

Asia, linked by busy sea networks rather than the difficult overland routes of Peru and Mexico, had much more active private trading. As reading 1.4 demonstrates, diasporas of trading peoples such as the overseas Chinese, Muslims, and Hindus joined together an enormous and complex network of commerce; we will return to these trade diasporas shortly. Moreover, the Chinese "tribute system" (see reading 1.2) helped provide a framework for trade across vast areas of East and Southeast Asia. Though its primary purposes were political and cultural rather than economic, it helped provide an "international" monetary system, promoted shared luxury tastes across a huge area (making the market big enough for specialized producers to target), created quality standards for many goods, and promoted at least some common expectations of what constituted decent behavior. The leaders of ethnic trading communities (reading 1.1) provided other elements of a shared framework for trade; so did the accumulated practices in certain long-established entrepôts (usually city-states that were convenient meeting places for East and South Asians because of the patterns of the monsoon winds -- see "Wood, Winds, and Shipbuilding" in Chapter 2). These trading networks were linked to states in many ways, but they had also gained a life of their own---;md at least some of the states they were linked to were not going to collapse as easily as the Incan and Aztec ones, anyway.

Thus, when Europeans finally entered the waters of the Indian Ocean in the sixteenth century and tried to wrest away the trade, they found their Asian competitors resilient. We see in reading 1.4 that for a long while, Europeans were treated as simply one more competitor who had to be tolerated, but not obeyed. Unlike New World traders, Asians were less dependent upon their states and hence could persist, even thrive, in the face of European cannon.

But saying that Asian trade was more independent of the state than that of the Incas or Aztecs does not mean that it operated in a purely economic realm outside politics and culture. On the contrary, even "merchants" often derived more profit from state concessions and monopolies than from clever entrepreneurship or commerce. Muhammed Sayyid Ardestani (reading 1.11) amassed a huge fortune as a tax farmer and a contractor for government purchases. The importance of good relations with government officials was obvious even to the representatives of the English East India Company (reading 1.12). In order to impress the Indian princes with whom they dealt, agents of the company spent lavishly to maintain themselves in the life-style

of local princes, and made frequent shows of military power. Being a successful trader required spending as much as accumulating: minimizing costs was not a consistent high priority.

Success for many Europeans in Asia also demanded intermarrying with the local population. Agents of the Dutch East India Company took Malay, Javanese, Filipina, and especially Balinese wives (reading 1.9) to implicate themselves in the local market and society. Even though the British and Dutch agents represented some of the first modern capitalist enterprises organized as joint stock companies, they relied on the traditional means of business alliances: marriage. But while a high-level European marriage generally linked two "houses" in which males controlled the capital and managed the business by exchanging a woman, almost as if she were a trade item herself—in Southeast Asia it was often the bride herself who had the liquid funds and the business acumen (her aristocratic male relatives considered themselves above such haggling). Some European men were delighted to get a domestic partner and a business partner in the same person; many more seem to have found the independent spirit of these women irksome. But for a long time they had little choice but to adapt if they wished to prosper. In fact, the European sojourners often indirectly reinforced the importance of these women even while they (and the missionaries who accompanied them) complained about it. Not being used to the tropics, these men tended to die well before their "local" wives; with inheritances in hand, these women then had even more bargaining chips for their next venture or next marriage.

Europeans had to "go native" in the first centuries of contact because of their own weakness and because of the variety of local laws and traditions that governed commerce. A diversity of states, religions, and trade diasporas and no agreed-upon commercial law left room for violent disputes. As we see in reading 1.10, the intensification of trade in the sixteenth and seventeenth centuries led to greater contact and increasing agreements on trade conventions. The spread of Islam also provided an ethical basis for conflict resolutions. But a convergence of practices was not inevitable. In fact, a depression in the eighteenth century led to a reversal of the trend, at least in what is now Indonesia; commercial customs again became more local and disparate.

Moreover, "native" was a relative term. The typical Asian port housed Gujaratis, Fujianese, Persians, Armenians, Jews, and Arabs, just as European trading centers housed separate groups of Genoese, Florentine, Dutch, English, and Hanseatic merchants. Only the most near-sighted European could fail to see that these groups differed. (The greatly increased power of Europeans in the nineteenth century encouraged such myopia and allowed more Europeans to get away with it; but earlier traders, lacking the aid of a colonial state, could not survive if they were that obtuse.) The individuals who made up these "trade diasporas" may have all expected to leave someday, but the accumulated knowledge, contacts, and ways of operating that each group created was much more enduring—sometimes more important and lasting than the laws of the supposedly rooted "local" authority.

Under the circumstances, it is not surprising that trade diasporas remained the most efficient way of organizing commerce across much of Afro-Eurasia until the nineteenth century, as they had been for centuries. Trade diasporas made sense from many points of view. In an era when contracts could be hard to enforce, especially across political boundaries, it helped to deal with people who came from the same place you did. You were likely to understand them better than you did strangers in the first place: to share an understanding of what was good merchandise, of when a deal could (and could not) be called off, and of what to do in embarrassing but inevitable situations such as bankruptcy, accident, and so on. If you traded with somebody with whom you did not share these understandings you ran a higher risk of trouble, including having to deal with the culturally alien, sometimes arbitrary, principles of the local ruler's courts. And in case a trading partner was tempted to cheat you, it helped that their relatives and yours lived near each other. If worse came to absolute worst, there were people to take your anger out on, but more often a shared home base enforced honesty in a less physical way. Somebody who eventually hoped to return home, to inherit his parents' business, or to marry his children to members of other elite families back in his home territory would think twice before hurting the reputation of his family back home. The same principles not only kept traders abroad—two Gujaratis doing a deal in Melaka, for instance—honest with each other; it worked even better to keep either one from enriching himself at the expense of his partners or employers back at their native place. In the Fujian trading diasporas, the use of social prestige back home to ensure honest dealings while abroad reached a pinnacle of sorts. Great merchant families often sent their indentured servants off to manage their most far-flung business interests, especially in Southeast Asia. (Among other things, they may have wished to keep their actual sons at home—for company, safety, to maximize the chance of grandchildren, or to protect the family's other interests by managing their land or training to become a government official.) The servants understood that if—and only if—they returned home having done well would they be given their freedom, adopted into the family as a son, and furnished with an elite bride selected by their new parents. Until they succeeded, there was not much point in coming home.

The rulers of port cities also found it convenient to have trade handled this way. Concentrations of wealth in the hands of aliens were less threatening than concentrations of wealth in the hands of, say, local aristocrats who might have the right blood and connections to make a bid for the throne; and if many of the aliens came from the same place, they could be assigned to keep each other orderly. Even Stamford Raffles (see "Winning Raffles" in Chapter 2), who saw himself as a child of the English Enlightenment and professed a belief in the rule of law, not men, found it convenient to organize Singapore (which he founded in 1819) as series of separate ethnic quarters, with a few leading merchants in each quarter responsible for governing according to the customs they were used to. In the best of all possible worlds, a ruler might even convince a key figure in a trade diaspora to pay a handsome sum to be named "captain" over his ethnic fellows: if the ruler chose the right person, he got revenue, a grateful (and wealthy) follower, and good government in the merchant quarter at no cost to himself. With so many

advantages, trade diasporas remained an indispensable way of organizing trade until full-fledged colonial rule (and with it Western commercial law) was established across much of the globe in the nineteenth century. And even then--and in fact today--such networks remain an important part of global trade. Condemned by much of Western social theory as nepotistic, irrational, "traditional" (and thus hostile to innovation), groups of Fujianese, Lebanese, and others continue to organize trade through ethnicity, and to compete successfully with allegedly more rational ways of doing business. When the "past" thrives in the present, it's a sure sign that reality is more complex than the blackboard diagrams of either economists or sociologists.

Even when distant areas conformed to European standards of law and values, many other impediments stood in the way. Reading 1.8 reveals how difficult business conditions were for an English merchant in Brazil in the years right after its 1822 independence. By this time, European military power was far greater, allowing Europeans to force some reluctant people (and their land and goods) into the kind of market they wanted. Moreover, Europe had made a quantum leap in methods of producing some goods (such as cloth) at low prices, allowing them to trade on very favorable terms with anyone who wanted those goods. And meanwhile, conventions of trade (and ways of thinking about trade), which fit well with our notions of profit maximization, had come to the fore in Europe, so that Europeans had a much clearer idea of what market conventions they wished to impose in Brazil and elsewhere. But even so, the creation of a world economy was far from finished. Just how far will become clear in Chapter 6, on the institutions of modern world trade.

## 1.1 The Fujian Diaspora

Any trader knows that personal contacts matter. But before the age of telecommunications, enforceable commercial codes, and standardized measures, it was even more important to have some non-business tie with your partners, agents, and opposite numbers in other ports. So all over the world, trade was organized through networks of people who shared the same native place--and thus a dialect, a deity (or several) to swear on, and other trust-inducing connections. Genoese, Gujaratis, Armenians, Jews (though for the latter the shared "native place" had long been lost) and others fanned out across the world, and linked its cities to each other.

The Fujianese diaspora, based on China's Southeast Coast, has been among the largest and most durable of these. (In 1984, Fujian's Fujian county had 1,026,000 residents--and over 1,100,000 known descendants abroad.) It also has an unusual feature. While most of the other trading diasporas were purely urban, Fujian also sent millions of its children to clear land and grow crops elsewhere: from the Chinese interior to Southeast Asia, the Caribbean, and California. Yet oddly enough, the two diasporas had little to do with each other until the late nineteenth century, and then largely under the aegis of Western colonialists.

Fujian has long been crowded and rocky, so that, as one Chinese official put it, "men have made fields from the sea"; it has been a center of boatbuilding, fishing, and trade for over 1,000 years. Even after deforestation forced boat-building to move to places like Thailand, Fujianese remained the principal shippers and traders of Southeast Asia: many also became tax collectors, harbor masters, and financial advisers in the region's kingdoms, and later in Europe's colonies there. As transportation improved in the nineteenth century, the networks extended further--most of the Chinese who came to gold-rush California, for instance, came not from the counties hardest hit by poverty and violence, but from counties in Fujian and neighboring Guangdong whose commercial networks gave their sons access to superior information and start-up capital for venturing abroad. The firms that managed these overseas activities were usually organized on family lines, and used those connections strategically. The opportunity to return home to a carefully selected bride was often used as an incentive to make a sojourning family member produce and remit a certain level of profit; some young men without families were entrusted with difficult ventures and told that their adoption would be formalized when they returned successful. Lineages often specialized in particular lines of trade and passed on valuable techniques to their members; and affection and loyalty made the sometimes vague boundary between personal and firm assets much less important than it might otherwise have been.

Meanwhile, Fujian also produced agricultural migrants who fanned out across both China and Southeast Asia. Here, too, the home base's resources could help in getting started, and important skills could be transferred to new locations. Fujian has grown sugar for hundreds of years, and Fujianese brought the crop (and/or new ways of growing it) to many new places: Jiangxi and Sichuan in the Chinese interior, Taiwan, Java, and parts of the Philippines. Indeed, Fujianese were so known for their skill in growing sugar that Europeans deliberately sought them out as sugar-growers for their plantations, from Sri Lanka to Cuba to Hawaii.

Where Fujianese farm workers went, a few Fujianese merchants usually followed--providing retail goods (including the right kinds of rice and condiments, and sometimes opium), credit, and help in sending money back home. But given how strong Chinese merchant groups were in Southeast Asia, the vast undeveloped tracts of potential farmland, and the crowded conditions back home, what is striking is that the two diasporas weren't more tightly linked--in particular that Chinese merchants very rarely tried (except on Taiwan) to develop overseas farms with labor from home. As early as 1600, Chinese Manila was as big as New York or Philadelphia would be in the 1770s, and there was plenty of unused farmland nearby but no significant rural Chinese settlement. Why?

One simple but important factor was that the Chinese state would not support such ventures. It appreciated that commerce helped keep South China prosperous, but distrusted those who would leave the center of civilization for long. The compromise was a ban on people staying abroad over a year--a mere inconvenience for merchants (who sometimes had to pay bribes to return after two trading seasons), but a very strong deterrent for farmers, who would have to stay abroad much longer before their travels paid off and they could return home rich (as sojourners generally hoped to).

Just as importantly, the Chinese state's indifference to colonization meant that its subjects overseas had little security. Anti-Chinese violence was not infrequent, and though the Qing occasionally made gestures in support of their "good" subjects who were abroad temporarily, they would not even do that for "bad" subjects who had been gone longer. The best security for Chinese overseas was the ability to run and/or make payoffs--both much easier for a relatively liquid merchant than for even a very successful farmer.

Not only was the Chinese state unwilling to flex its muscles to provide law and order for its subjects abroad: it would not help merchants do so themselves. European countries, of course, licensed private companies (the East and West India Companies, for instance) to themselves use force, conquer overseas areas, provide government, and move in settlers; and as the Zheng family (see "Saved from Sugar Shock" in Chapter 4) showed, Chinese merchants had the skills to do that, too. What they didn't have, though, was any incentive. European companies that bore the high start-up costs of creating a colony could recoup those costs because they had a guaranteed market back home for whatever exports they could generate: tobacco, sugar, and so on. Even when high taxes and profit margins were tacked on, the goods faced very little competition in Europe: revenue-hungry governments gladly kept out other countries' colonial exports, and climate and geography decreed that there would be no home production of sugar or tea. But the Chinese state was under less pressure to increase its revenues--it had no neighbors of comparable might, and it ran big budget surpluses through most of the 1700s. Even if it had wished to work with overseas merchants to create a stream of heavily taxed colonial imports, it would have found this difficult: China had tropics within its borders, and grew plenty of sugar and other overseas goods. Faced with domestic competition, people exporting back to China could not charge spectacular mark-ups--and so had no reason to risk lots of money starting overseas settlements that would eventually increase their supplies.

Things changed after 1850, when European colonial rule became more secure and demand back in industrializing Europe soared. Then a new generation of overwhelmingly white investors took the steps to match sparsely populated tracts of the tropics--from the newly drained Mekong Delta to Hawaii--with vast numbers of Chinese (and Indians) whose good farming skills were available cheap since they had so little land back home to farm. Fujianese traders were involved again--as labor recruiters, grocers, pawnbrokers, writers of letters home--but not as the prime movers, and not as the people who profited most from the sweat of their countrymen. Having lost the chance to create new "homelands" for themselves, these two Chinese diasporas would both spend the next century as essential but underpaid helpers of those who were aggressive enough to do so--for a while.

## 1.2 The Chinese Tribute System

When nineteenth-century Europeans came banging on the gates of China, one of their most vociferous demands was the abolition of the "tribute system," in which foreign trade was licensed as part of an elaborate set of diplomatic exchanges in Beijing. While part of their hostility was due to the way in which tributary diplomacy was symbolically different from diplomatic exchange among equals--John Quincy Adams even claimed that the demand that foreign diplomats kneel was "the true cause" of the Opium War--they also ridiculed the tribute system for forcing the practical matters of trade into a straitjacket of ritual. To a nineteenth-century Western European, convinced that humans naturally sought economic gain above all, no further proof could be needed that China stifled normal human impulses and would be better off if it was "opened up" to *laissez faire*--even by violence.

But were pomp and pragmatism really at odds in the tribute system? A closer look shows that they complemented each other--but only once we recognize that economics is always embedded in cultural and social practices.

For the Chinese court, "foreign" and "domestic" trade were not distinguished in the same way as today. Their world was not one of sharply separated sovereign nations, each with its own laws, customs, and relatively stable boundaries. Instead, they saw one true civilization--their own--which was based on principles appropriate to all people, wherever they came from, and one ruler--the Chinese emperor or "son of heaven" who represented all humanity before the heavens. Those who were ruled directly by the emperor and by officials he hired and fired comprised an inner circle of humanity; they paid compulsory taxes, though they might also offer (theoretically) voluntary "tribute." Those who lived under partially assimilated native chiefs or kings (even if they occupied the hill country in China itself, with Chinese settlements and military garrisons in the valley all around them) and followed at least some customs and laws of their own comprised a second circle: their representatives brought tribute frequently, and private trade in virtually any articles was encouraged as well. A further circle of less assimilated rulers brought tribute less frequently, received fewer gifts in return, and had more restrictions on their private traders. An outermost group of "barbarians" who did not pay even lip service to Sinocentrism was excluded from the tribute rituals entirely; they were either allowed very limited trading rights at one or two specific border spots (the British at Canton in the eighteenth century, the Russians at Kiakhtha) or traded indirectly by having their goods included in the tribute offered by somebody else. (Portuguese goods, for instance, might be purchased by a Siamese ruler and included in his tribute offerings.)

By exchanging gifts with these emissaries, the emperor confirmed his approval of them as rulers, but he also made clear who was the superior and who was the inferior in this relationship. The foreign emissaries, even if they were kings themselves, bowed to him, but not vice versa. Moreover, the nature of the goods exchanged was heavy with symbolic importance. The goods foreigners presented were supposed to be exotic, and valued more for what owning them said about the emperor than for any use value: by including exotic animals in their zoo, for instance, Ming rulers reinforced their claims to universal overlordship. The goods given by the emperor in return were symbols of refinement and civilization: books (especially the Confucian classics), musical instruments, silk, porcelain, paper money (a uniquely Chinese product for several

centuries after its creation in the 1100s), and so on. Many were most useful to the rulers of tributary states as gifts that they could give to their followers, creating clients and reinforcing their right to rule by reminding other aristocrats back home that they were the ones with a special pipeline to the court that defined elegance for much of the world.

Clearly, then, the design and basic dynamics of the system came from concerns about culture, politics, and status, not about profit maximization. But at the same time, it defined the ground rules for a vigorous trade. When the Qing rewarded Siam's "civilized behavior" in shipping rice to Canton (rather than a frivolous good such as sugar, much less opium) by expanding tribute trade (which was more profitable for the Siamese than the rice shipments) they were rewarding political loyalty--but they were also keeping South China food prices down.

And when we look closely at the tribute missions themselves, moral order and economic profit prove to be linked in many ways. Not only did merchants accompany the tribute mission, bringing trade goods that they could sell privately while in Beijing; even gifts from the emperor were often quickly recycled. (Indeed, Chinese traders joined some foreigners in complaining that the court did not give the foreigners enough gifts; they knew well that it was a portion of these gifts, quickly off-loaded for cash, that gave foreigners the wherewithal to buy other Chinese goods.) And the tribute exchanges established value for many Chinese goods, making them valued luxuries abroad because they were the sorts of things that emperors gave.

This not only applied to things like ivory chopsticks (even in countries where people ate with their hands) but to money itself. When Chinese governments printed too much paper currency (as they often did), the tribute-bearers who were given some had little to gain by swapping it for goods within China; but back home it still had cachet, and so value (even if that value was unrelated to what denomination was printed on it). So, was somebody who brought his paper currency home chasing a useless status symbol, or was he, like any good trader, simply not disposing of it where there was already a glut? And was the man who carried silk home that different? True, printed Chinese silks could be worn, unlike paper money, but they were also--like paper money--an acknowledged store of value that was almost as hard to counterfeit then as a greenback is today; and they were also a status symbol, even if one never wore them. So silks became both the fabric of the elite and a form of money: in many areas one could (or even had to) pay part of one's taxes in silk. (Until roughly 1600, this was true in China itself--and Ming rulers often used a substantial portion of this silk to buy peace with the Mongols and other potential invaders.) So the tribute system--which so clearly subordinated economic gain to other priorities--at the same time helped define a vast common market, giving it its currencies, defining tastes that helped create markets worth producing for, and creating the standards (both of fashion and of behavior) by which its elites recognized in each other the people they could deal with without either lowering themselves or running too much risk of default. Today, we may have dispersed those functions among many seemingly unrelated players--from the IMF to Yves Saint-Laurent--but we have not dispensed with any of them. When they were centralized in Beijing, the tribute trade was no less commerce for being ritualized--and no less ritualized for being commerce.

## 1.3 Funny Money, Real Growth

Endless books have been written about the dangers of governments printing too much money. But for centuries the opposite problem was just as common: governments often couldn't mint enough coins (or the right coins) to meet their subjects' needs. When currency famine struck one of the most dynamic pre-modern economies--that of Tang (645-907) and Song (960-1127) China--it spawned innovations that ranged from coins made of lead and pottery on the one hand, to the world's first paper money on the other. And, surprisingly, the awkward coins survived longer than the modern sounding paper money. Therein lurks a surprising lesson: a single convenient currency isn't always what a complex economy needs.

The basic problem was simple: "medieval" China's economy was growing and commercializing too fast for both its political institutions and its metal supply. The Chinese had used copper, bronze, and (more rarely) gold coins for centuries, but the dizzying speed of economic change meant that too many exchanges were happening for the supply of coins. The eleventh century alone saw a twentyfold increase in the annual output of government mints, plus lots of private coinage--and it still wasn't enough. Lead and iron coins were used locally where those metals were plentiful, despite their inconvenience; and silk, tea, and other luxury commodities were regularly used as "money" for large transactions. Then, to avoid the costs and hazards of transporting commodity "money," both tax collectors and long-distance traders began printing commodity-based notes: thus somebody delivering, say, salt to Hangzhou could receive not silk or copper to take home, but a piece of paper that could be exchanged for silk or copper once he got home. Then the government--concerned about the confusion, fraud, and high transaction costs created by the wide variety of moneys---began issuing more notes of its own, making them exchangeable for *any* commodity, and insisting that merchants use those notes instead of printing others. By 1024--centuries before anything comparable in the West--we find Chinese governments printing recognizable paper money.

Just one more step--issuing standard notes in small denominations to replace most of the varied mass of coins---would have created the kind of currency system we're used to. So why didn't this happen? The problem was that "money" had at least three distinct functions in this period, which often clashed. It was the way of settling accounts for large long-distance transactions: forwarding taxes from the provinces to the capital, provisioning armies, and buying rare luxuries. It was the essential lubricant for the millions of small daily transactions in a society far more market-driven than the Europe of its day. And, as something that the Chinese made more skillfully than others in East and Southeast Asia (who trailed in both printing and minting technology), it was an export good in high demand.

Paper money was ideal for large-scale domestic trade, and made considerable headway against coins of all sorts. High-quality copper (and some gold) coins were good to export, since foreigners could test their reliability more easily than paper, and re-mint them if they chose. As a result, paper, gold, and copper shared a tendency to disappear from local

circulation--especially in areas that imported necessities (such as salt) from elsewhere in China, or had trouble meeting their tax bills. Those areas suffered frequent liquidity crises, and adjusted by minting whatever was at hand. In fact, for such areas, very awkward currencies--lead, iron, pottery--were actually ideal; since it would not be very profitable to carry such bulky currencies away, it was better for merchants who sold in these markets to take home commodities. Thus "junk money" not only ensured that there would be some money around to fuel local circuits of exchange in poor areas; it also provided a hidden subsidy to the "exports" those areas needed to balance their "imports." (In areas that exported necessities like salt, "bad" money was not needed, and seems to have been much less common.) So while one reformer after another sought to curb these local moneys, it was no accident that none ever succeed ~and it would have been disastrous if they had. Instead, sophisticated markets developed in which local currencies could be exchanged for more standard moneys, but only in limited quantities--a solution that balanced the needs of a huge interdependent economy with the "protectionist" needs of poorer localities.

And in the long run, paper money proved more vulnerable than clumsy coins. Since paper was supposed to be trustworthy enough to circulate over huge distances, periodic printing press inflation compromised its usefulness much more than over minting damaged local currencies. And as the currency designed for large, long-distance transactions, paper money became far less useful when political disruption ~ particularly the wars that accompanied the collapse of Mongol rule in the mid-1300s--obstructed long-distance trade. Long-distance trade recovered and then reached new heights in the 1500s, but by then a new medium of exchange was available: silver, which came first from Japan, Vietnam, and Burma, and then, in unprecedented amounts, from the New World. For the next 300 years, close to half the world's silver production found its way into China's money supply, joining but not replacing other local coins, while becoming the standard for long-distance trade. Meanwhile the rest of the world enjoyed silks, porcelain, and other goodies they could not have purchased had China's experiment with paper money not proved abortive.

Only after the nineteenth-century opium trade reversed this silver inflow did the Chinese government return to printing paper money. And as poorer areas once again found silver and copper scarce, bronze, iron, and other local coins again proliferated, much to the dismay of foreigners. But what Westerners thought was monetary chaos permitted by a government that had never cared enough about trade to create a reliable currency was really something very different: the return of mechanisms that mediated the many levels of a complex economy in a way that no one currency could do.

## 1.4 When Asia was the World Economy

Every schoolchild knows, Columbus was looking for India when he stumbled upon the Americas. But the Portuguese actually reached India by sea in the 1490s. And while they did not overwhelm the societies they encountered as the Spanish did in the New World, they did help to undermine a vast commercial system centered on the Indian Ocean.

This Asia-centered world economy had been taking shape since the rise of Islam in the seventh century. As the first Arab converts conquered much of the Byzantine world (especially Egypt and Syria) to their West and the Sassanid lands (Iran and Iraq) to their East, they laid down few economic rules; both the converted and unconverted (mostly Jewish or Christian) traders of Cairo, Damascus, Baghdad, and Tashkent continued business as usual. The conquest meant that a single power, the Islamic caliphate, could guarantee safe passage between two worlds--the Mediterranean and the Indian Ocean--separated since the decline of Rome.

As later generations extended the Islamic conquests from Spain to Somalia and Java, the networks of Hindu and other traders were welded to those of the West and Near East. Commerce boomed. At the edges of the empire, merchants dealt with a still larger world. Traders bought Chinese porcelain and silk in Canton and Malaysia. Europeans shipped Indonesian spices via the Red and Mediterranean seas. And from Eastern Europe, Turkey, and sub-Saharan Africa came other crucial imports: gold (principally for coining money), iron, timber, and slaves both white and black.

The limited unity that the caliphate created--particularly in currency--was essential to this burgeoning trade. So was the urban elite's insatiable demand for exotica. But the looseness of Islamic rule was even more important: as long as tribute was paid, local rulers were allowed to do much as they pleased. Most rulers allowed traders of all faiths to move freely from port to port. Wars were frequent, but usually limited to land, while the seas remained open. Merchants who encountered problems in one port simply moved to another. Piracy was common, but manageable. Merchant groups, often organized on ethnic or religious lines, maintained insurance funds to ransom any members captured at sea. Kidnapping became so pervasive a business pursuit that, in the 1200s, a standard ransom rate prevailed throughout the Mediterranean.

Within this cosmopolitan world, businesses spanned vast areas. The letters of one group of Jewish merchants, found centuries later in a Cairo synagogue, reveal a family firm with branches in India, Iran, Tunisia, and Egypt. Moreover, a complex international division of labor developed: the soldiers who resisted the Crusades wore chain mail from the Caucasus and carried steel swords smelted in India from iron mined in present-day Tanzania. Not only luxury goods, but such bulky necessities as flour and firewood, were exchanged across huge distances. The density of exchange also favored the worldwide diffusion of knowledge and products. Rice-growing, which had spread slowly from Eastern Asia to India and parts of Mesopotamia, was now adopted in Egypt, Morocco, and Southern Spain; sorghum spread from Africa to the Mediterranean. Cotton was introduced from India to Iraq as early as the 600s; from there it followed the trade routes to Syria, Cyprus, Sicily, Tunisia, Morocco, Spain, and eventually to the Nile Valley. Islamic trade routes brought paper-making from China to Europe, and Greek medicine back into a Europe that had lost it.

By the time the Portuguese arrived, this system was already in trouble. Revolts by slaves, overtaxed peasants, and the urban poor; invasions; and ecological problems had led to economic contraction and fragmentation. Yet the volume of trade

was still enormous, and the basic rules by which it was conducted still held. The Portuguese government was the first to attack the principle--common throughout the region--that the sea belonged to no one, and the first to use force to redirect trade. Within twenty years of sailing into Asian waters, they created forts at two of the three places where major westbound trade routes could be blocked: Malacca, in the straits that connect the Indian and Pacific Oceans, and Hormuz, at the entrance to the Persian Gulf. (They failed to take Aden, at the mouth of the Red Sea, but succeeded in blockading it during the annual sailing season.) They also built numerous coastal forts, mostly in India. They claimed a monopoly in the pepper trade, and the right to board or sink any ship in the hemisphere to which they had not issued a pass, or *cartaz*. The *cartaz* was cheap, but the buyer also had to agree not to trade in certain commodities, and to boycott certain ports.

Portuguese pretensions far exceeded their power. Their settlements were always vulnerable because they were not self-sufficient. Indeed, most survived only because they were obviously too weak to threaten major land powers; thus nearby kingdoms felt free to feed the Portuguese in return for *cartazes* and safety at sea. And though Portuguese ships dealt harshly with those whom they caught violating their monopoly--sinking ships, bombarding ports, and burning crops--they could not truly rule the ocean.

By the middle 1500s, the counterattack began. The sultan of Aceh led an offensive on land and sea, reopening the Red Sea trade routes in the 1540s with the help of Indian merchants, and besieging Malacca (with Turkish help) over and over in the late 1500s. Before long, more powerful Europeans appeared: the Dutch and English. By the early 1600s, the Portuguese empire in Asia was in irreversible decline. But the age of mercantilism, trade wars, and a Europe-centered world economy was just beginning.

## 1.5 Treating Good News as No News

Imports from Asia to Europe date back to Greek times, if not earlier. The writings of Roman moralists contain diatribes against patricians "wasting" valuable gold and silver to clothe themselves in Chinese silk. And most people today associate East-West trade before 1500 with one name above all: Marco Polo (1254--1324), the Venetian trader who spent twenty-five years in China and other parts of Asia. But to his contemporaries, Polo seemed more a crank than a trailblazer. Undoubtedly Polo, his father, and his uncle had done something right while in Asia, since they returned with enormous profits; but too many of Polo's stories clashed with European preconceptions for him to be believed.

Polo's *Travels* are today the most famous account of international trade ever written. They have gone through hundreds of printings and have been the basis of movies; a recent list of scholarly studies runs 354 pages. Most of what Polo told his readers about China, Persia, Sumatra, and elsewhere has since been substantiated. (He was less reliable about Japan, Java, and other places, for which he relied on hearsay.) But for a long time his accounts were treated less as a medieval Fodor's than as fantasies.

Polo told his stories to his cellmates after he was captured by Genoa in one phase of its centuries-long war with Venice for commercial and maritime dominance; and it was of these fellow prisoners, a professional writer of romances, who wrote out and published the *Travels*. For a good 200 years thereafter, Polo's *Travels* were usually classified as romances as well. Beginning shortly after Polo's death, carnivals in Venice featured a clown named "Marco of the Millions" (a nickname for Polo himself) who amused the crowd by telling increasingly outrageous stories; "a Marco Polo" became a proverbial English expression for lies. Meanwhile the "travel diaries" of John Mandeville, a fourteenth-century scholar who never left Europe, went through far more editions and were far more widely believed, even well beyond the days of Columbus and Magellan. Though Mandeville carefully borrowed accurate accounts from numerous other travelers (including Polo), he also borrowed much well-worn nonsense: eighty-foot-tall cannibals, giant ants that mined gold for their human master, and so forth.

Why the credibility problem? The question is even more puzzling because earlier Europeans had known much of what Polo's contemporaries would not believe. Though Europe had traded with East Asia for centuries, it had always been done through intermediaries, and political changes had made the European role increasingly marginal. After the collapse of the Eastern Roman Empire and the rise of Arab and Persian power, the amount of silks and spices moving by land across Central Asia had declined; instead, these goods moved by land and sea to Alexandria. From the tenth century on, Venice had obtained a virtual monopoly on the transshipment of spices from Alexandria to Europe, and thus had no interest in seeing other Europeans develop alternatives to Alexandria. (This intimacy with Arab traders made the Venetians something of an exception in the age of the Crusades; when they went so far as to begin their contracts with the Egyptians with "In the name of God and Mohammed," the Pope drew the line. Few Venetians stopped making such contracts, but many "made up for it" on their deathbed by willing their profits to the Church.) It was only with the consolidation of Mongol power in Central Asia that the northern trade routes reopened, bringing Polo and other Europeans back into Central Asia for the first time, and into direct contact with China for the first time ever.

Thus, many of the physical wonders Polo described--such as the Baku oil fields in present-day Armenia--had been used by the Romans; however, the use of oil for heating had lapsed with the empire, and did not return to the Mediterranean until the 1700s. (Petroleum-based bombs had also been used in war, but had been banned as inhumane in 1139; the ban was largely obeyed until napalm made its appearance in our own century.) But few people knew this in Polo's day, and his accounts of wonders like the black stones that could be burned for heat (coal) struck many as implausible. But the greatest doubts were reserved for his stories of life in China, which had become the heart of the Mongol Empire.

Europeans certainly knew of Mongol military power, since the armies of Genghis Khan had conquered as far as Poland and Hungary before turning back in 1222 (due to a succession crisis at home). European traders and missionaries had

encountered dependents of the Great Khan ruling many parts of India, Persia, and Central Asia; and after the slaughter that accompanied the early Mongol conquests, most of Asia lived relatively peacefully under their rule, allowing the Polos and others to revive land-based commerce. But to most Europeans, the fabled Eastern land of wealth and wonders was India; they were simply unprepared for the wealth and sophistication that Polo reported in China. Tales of cities of perhaps 2 million people (Quinsay, or present-day Hangzhou); a canal over 1,000 miles long; and an economy that ran on paper money were simply too much for Polo's fellow Venetians (who had just built their first mint in his absence).

Most confusing of all, though, were probably Polo's claims that public safety and commercial honesty were far better maintained in China than in Europe, without Christianity as a basis for morals. Europeans had long believed that a fabulously rich, quasi-utopia existed in the Far East, founded by an itinerant Christian named Prester John; but a non-Christian kingdom as excellent as Polo's version of China was something else again. (The Prester John story died hard, even after Polo and other European travelers debunked it; before long, common belief had simply moved this utopia to uncharted parts of Africa.)

Some merchants and missionaries did follow Polo to China, drawn to a field where (unlike in India) they faced little Moslem competition. But the opportunities Polo described did not last long. Within a generation of Polo's death, the Mongol Empire was breaking apart into separate warring states, the trade routes across Central Asia became treacherous again, and several of the great cities Polo had seen on his way across Eurasia all but disappeared. In China itself, the Ming dynasty re-established order, but on a far less cosmopolitan basis. As outsiders themselves, the Mongols had been perfectly happy to deal with other non-Chinese; Polo himself had served Kublai Khan during his stay in Asia. The Ming saw no need for foreign officials and before long were taking steps to restrict all kinds of foreign contact.

Between European blindness and Asian tumult, Polo's *Travels* seemed destined to remain more a curiosity than a business guide. His fellow Venetians even ignored his notes from a stop he made in Sumatra on the way home; this, he noted, was where the spices that Europeans coveted actually came from, and where they could be bought for a fraction of the prices Venetians paid in Alexandria.

It was left for Venice's rivals to take the hint. The first map to use Polo's information was made in Catalonia; Prince Henry ("The Navigator") of Portugal read the *Travels* avidly; and a copy of the book is preserved today in Seville, with notes made in the margins by a Genoese--Christopher Columbus.

## 1.6 Aztec Traders

When Europeans finally arrived in the Indian Ocean and the South China Sea, they discovered thriving Arab, Indian, and Chinese trade networks. It would take centuries for the Europeans to break the dominance of these traders in Asia, the Middle East, and Africa. But in the Americas, the Spanish and the Portuguese immediately controlled long-distance commerce. Why did the indigenous peoples of the Americas so quickly and easily cede trade?

The Europeans had theories that explained Indians' failure in commerce. Indians were racially inferior, lazy, and, most of all, uninterested in profit. With a strong sense of communal property and a desire to self-sufficiency, Indians were uninterested in European goods and the broader world. While soothing to European consciences, these explanations had little truth in the historical record.

In fact, pre-Columbian Indians traded extensively. It was no fluke that Columbus early in his first voyage discovered an Indian canoe from an island he had just visited already paddling to a neighboring people with the Spanish goods they had just acquired for trade. Caribbean islanders had frequent commercial intercourse.

But that was very small-scale compared to the commerce of Mesoamerica: turquoise and silver from New Mexico was traded down to Tenochtitlan (present-day Mexico City) in exchange for either bowls, knives, combs, blankets, and featherwork manufactured there or the wide array of trade goods the Aztecs and their neighbors accumulated: rubber from Veracruz, chocolate from Chiapas, jaguar pelts and honey from the Yucatan, gold from Nicaragua, cacao and obsidian from Honduras or El Salvador, and gold from Costa Rica. A tremendous area the equal to the distance from southern Spain to Finland separated Mesoamerican traders.

The urge to barter and truck was strong enough to push goods over two thousand miles. This was a feat unparalleled in the world because Mesoamerica had few rivers to tie together its far-flung populations. Most people lived in the high valleys of the center of the continent distant from the coast. Although the island of Cozumel seems to have been a major trading center for the Yucatan, no other coastal entre pots have been discovered. Trade centers were inland. They were separated by rugged and precipitous ravines and ten- to twelve-thousand-foot-high mountains. To further disrupt travel, unlike everywhere else in the world that was densely populated, Mesoamerica had no large beasts of burden to carry the turquoise, cotton blankets, and cacao. Nor were wheeled vehicles used. Thousands of humans carried the loads on their backs and heads up and down the mountain sides on narrow, treacherous paths.

Yet trade was vigorous enough that the Aztecs, and perhaps the Maya, had their own caste that specialized in commerce. The *pochteca* lived on the island of Tlateloco, next to the aristocratic Tenochtitlan. They had special exemptions, were well respected, and lived well. They supplied a market in Tenochtitlan that stunned the Spanish Conquistadors when they first saw it. Hernan Cortes reported: "The city has many squares where markets are held, and trading is carried on. There is one square, twice as large as that of Salamanca, all surrounded by arcades, where daily more than sixty thousand souls buy and sell, and where are found all the kinds of merchandise produced in these countries." A fellow soldier, Bernal Diaz, enthused: "We were astounded at the great number of people and the quantities of merchandise, and at the orderliness and good arrangements that prevailed, for we had never seen such a thing before."

With such a dazzling array of precious and manufactured goods, intricate and intensive trade routes, and a special merchant caste well acquainted with the trade and able to converse across many language barriers, why did the Aztec commercial class come to a crashing halt with the arrival of the Spanish? Why did they not continue to prosper as in Asia, the Middle East, and Africa?

The answer is twofold. First, although extensive and well developed, Aztec and Mayan commerce was not really commodity commerce. Money and private property were still in the beginning stages of use. Commerce was an extension of statecraft and merchants were essentially government officials. Trade was largely in tribute goods exacted through force or the threat of force; it was not private property created with the intention of profit. Thus this was a commercial system greatly dependent upon the political empire it served. Without Aztec or Mayan force there would be no tribute goods; and with no tribute there would be no trade.

The astounding destruction brought by the Spanish conquest ended not only Aztec and Mayan political power. It also destroyed the large cities (Tenochtitlan may have had as many as 500,000 inhabitants, ten times the size of the largest city in Spain) and even much of the rural indigenous population. The remaining population was either drafted into working for the Spanish or attempted to close itself off from the Spanish world in tightly guarded local economies. Most of their luxury goods such as featherwork and skins did not interest the Spanish. Those goods that did, such as cacao and gold, were soon produced under the control of Spaniards, who also oversaw their trade.

Within a few short years, a vast thriving commercial emporium had disappeared. Indians were condemned as non-enterprising and marginalized from the economy. Global trade not only created commercial networks, it also destroyed them.

## 1.7 Primitive Accumulation: Brazilwood

There are few countries in the world so much created by the world economy as Brazil. It is the only country to receive its name from a trade good. Greece and Turkey, for example, never exported lard or fowl. Nor did Peru, whose name means "turkey" in Portuguese, or Argentina--named wishfully for silver--provide the world with those products. Yes, some countries and areas gave their names to goods; China comes immediately to mind. But in Brazil it was the trade good--the Brazilwood used for dye--that christened the area. The *pau Brasil* first attracted European interest in the distant subcontinent, but its boom was brief and its harvest difficult.

The problem was that to harvest dye wood from the sweltering tropical forests, the large trees had to be cut and transported to the coast. This, of course, required labor. Europeans had not come to the tropics to do such arduous work. But they found it difficult to induce the local population to work for them. Although there may have been as many as 6 million people living in Brazil in 1500 and they were concentrated close to the coast and rivers, the men had no tradition of hard work and the women could not cut and haul the logs.

The semi-nomadic Tupi people whom the Portuguese encountered gained most of their sustenance through hunting, fishing, and gathering. Women conducted their rudimentary agriculture; labor was little specialized nor had capital been accumulated. These people were so "backward" that they did not pay taxes or work for others. The Tupi classless subsistence societies also engaged in little trade and produced for themselves only simple artifacts.

For some of them, trade was more a contest than a profession. Jean Lery, a French Huguenot who visited Brazil in the 1550s, wrote of the most peculiar exchanges of the fierce Ouetaca. When another people, say the Tupinamba, wanted to trade with the Ouetaca, they would show their trade good from afar, as would the Ouetaca. If both agreed to exchange, the Tupinamba placed his item, for example green stones, on a rock two hundred steps away and return to his original place. The Ouetaca would then walk to the rock, take the stones, place down his featherwork, and retreat. The Tupinamba would then return to get the featherwork. Then the exchange became interesting: "As soon as each one has returned with his object of exchange, and gone past the boundaries of the place where he had first come to present himself, the truce is broken, and it is then a question of which one can catch the other and take back from him what he was carrying away." Since the Ouetaca ran like greyhounds, they usually won the contest. Lery advised his European readers: "Therefore, unless the lame, gouty, or otherwise slow-footed folk from over here want to lose their merchandise, I do not recommend that they negotiate or barter with the Ouetaca."

The Ouetaca were exceptional, to be sure. Most Tupis willingly traded some goods and were not "Indian givers." However, their needs were limited. They had no sense of private property, commodities, or acquisitiveness. Lery became aware of this in a conversation with an older native who was curious why the Portuguese came from such a distance in search of Brazilwood: "Do you not have wood in your country?" he wondered. When Lery explained that the wood was for dye, not firewood, his interlocutor asked why they needed so much of it. The Frenchman replied that in his "country there are traders who own more cloth, knives, scissors, mirrors and other goods than you can imagine." The Tupi considered this a while then mused: "this rich man you are telling me about, does he not die?" Assured that Frenchmen too died, the old man wondered what became of the traders' goods after death. Lery patiently explained that they were bequeathed to heirs. The Tupi had heard enough: "I now see that you Frenchmen are great Madmen. You cross the sea and suffer great inconvenience ... and work so hard to accumulate riches for your children or for those who survive you. Is the land that nourished you not sufficient to feed them too? We have fathers, mothers and children whom we love. But we are certain that after our death the land that nourished us will also feed them. We therefore rest without further cares." The budding mercantile capitalists of Portugal ran up against this culture that they considered backward. They could not see that the native Brazilians already had the advanced values of a leisure-oriented ecologically sensitive society.

To convince the Tupi to sweat and toil carrying heavy logs that they no doubt believed were better left to stand erect as trees, the Portuguese and French exploited traditional local values and attempted to create demand. First, some of the Europeans went native. Unlike Robinson Crusoe, who attempted to remake in the image of Europe the desert Brazilian island on which he was shipwrecked one hundred fifty years later, some Portuguese and French adopted native (un)dress, learned their languages, and married into their communities. They then played upon traditions of reciprocal labor to begin to send the forest to Europe. The European traders also offered steel swords and axes which the warlike Tupi found useful in martial engagements. By allying with selected villages and providing them with weapons, the Portuguese attempted to create demand for arms by raising the level of violence. The French would then use the threat of Portuguese armed villages to strike up alliances with their enemies. Here in the remote tropical forests of the southern hemisphere, the quest for dye wood was replicating the wars of Europe.

But the Europeans could not inculcate in the Brazilians the virtues of accumulation and property. John Hemming recounts the complaints of a Jesuit priest, one of the vanguards of the culture of capitalism, who objected that the Tupi had "their houses full of metal tools .... Indians who formerly were nobodies and always dying of hunger through not having axes to clear fields now have as many tools and fields as they want, and eat and drink continually. They are always drinking wines in their villages, starting wars and doing much mischief." The introduction of steel axes had permitted entire villages of Brazilians to act as if they were European aristocrats. With their needs met, the Tupi were hard to exploit.

It became clear to the Portuguese that if they wanted more than simply enough, more than a healthy sustenance, in short, if they wanted capital, they had to turn to another form of labor. The rules of the Tupi labor market were set too much in favor of the aborigines. Since the small Portuguese population was not anxious to cross the Atlantic to break their backs in tropical agriculture, the Portuguese in Brazil took to enslaving their Brazilian hosts. But this was not ideal either. Many male Tupi, disdainful of agriculture, which they considered woman's work, preferred to die rather than dig. Others used their knowledge of the areas to escape. So traders turned to a people well equipped for the tropics and accustomed to agriculture: African slaves. But to purchase them required more money than dyewood could provide. Hence the Portuguese turned to sugar plantations. The "golden age" of Brazil began as the age of dyewood ended. Dyewood became an unimportant trade good and the native peoples were driven ever further into the remote interior. Today, the only trace left of the age of dyewood is the country's name: Brazil.

## 1.8 A British Merchant in the Tropics

You are a young Liverpool merchant of modest means, and you want to make your way in the world. The year is 1824 and you are going to help lead the British commercial assault on South America. You know that Brazil, that legendary treasure chest of sugar and gold, has just recently opened her ports to foreign traders and three years ago became independent. You have heard fellow merchants talking of setting out to take advantage of this new opportunity. No longer would you have to trade through Portuguese middlemen.

In fact, as an Englishman, you would enjoy special privileges the Portuguese did not share. In 1810, Portugal's king signed a treaty expressing his gratitude toward the English for helping him and his court flee Napoleon's army and cross the Atlantic. Now you, as an Englishman, would have access to special English-run courts and have the advantage of specially low tariff rates. You are also allowed to practice Protestant religions, as long as you are not too public about it. As a Liverpool native, you are acquainted with many merchants and representatives of British manufacturers. Sharing a language and customs with them, they trust you. You will be able to serve as a consignment and shipping agent and have privileged access to British credit for exports.

While this new-found opportunity seems promising, you are aware of the many dangers that surround you. The newly independent country is wracked with discord. Moreover, the economy has been depressed for almost a decade as international prices for sugar crashed and Minas Gerais's fabled gold fields dried up.

There is a new, promising product that might rescue Brazil-and you.

Europeans have been drinking coffee now for over a century in ever greater gulps. Haiti, the world's largest producer for much of last century, suffered a bloody social revolution that ended her coffee supremacy. Cuba and Jamaica have made some headway in replacing Haiti but neither has the vast fertile forests and large army of slaves that Brazil does. Introduced some thirty years ago, coffee is now spreading among Rio de Janeiro's hills. Yes, you think, Brazil is a good country for an Englishman on the make.

But what problems do you face doing business in this exotic land? Fortunately, in many ways Brazil is Europeanized. Having been a Portuguese colony for over three centuries, it has Portuguese laws and customs. As an export colony, Brazil's economy has long been oriented to foreign markets. But it is also the world's largest slave society with over a million slaves. You don't worry about the moral implications of trading in a slave country, of course. You are a hard-headed businessman after all. But what problems will slave culture present you in turning a profit?

Postcolonial Brazil has no history of banks. Except for the state-run *Banco do Brasil*, which mostly lends to the government, lending is on a personal basis. Loans are generally short-term at high interest rates and based on slaves' collateral or trust in the planters' honor. Although coffee growers own vast lands, rural real estate cannot serve as collateral because it is poorly demarcated, titles are usually faulty, and planters have so crafted the legal system that foreclosure is almost impossible. Under these circumstances, you are not likely to lend to the grower unless you are personally acquainted with him. Since transportation is so horrible in the interior that it can take weeks to go a few hundred miles, you rarely see planters.

A group of intermediaries spring up to transfer credit and bring coffee to port: they are the *comissarios* or factors. Mostly Portuguese, these men borrow from you and other exporters and in turn open up accounts for their planter clients. They sell the coffee that arrives in Rio to sackers who blend and sack it and sell it to you. You must inspect the bags carefully, however, because there is no government oversight or coffee exchange that inspects quality. Indeed, pickers and growers are notorious for stuffing sticks and stones into their coffee shipments. Moreover, there are no standards of quality, no accepted size of lots. Everything has to be double-checked and negotiated.

Information is also scarce. With a government that rarely intrudes into the interior and planters who rarely keep close accounts, information on the size of the crop is poor. Since coffee crops can vary by more than 50 percent from year to year this is a serious shortcoming. With no warehouses of any size, a glut can smash prices and scarcity can drive them way up.

You have some customers in England who issue you ninety-day notes in exchange, which you use to pay your bills and lend to *comissarios*. Because of Brazil's long history as a colony and the great expense of importing some 3 million African slaves, little capital is available locally; you must borrow abroad.

This, of course, is in your favor because it is in the international link that your advantage lies. But there are serious problems in selling abroad. Just as supply and price in Rio are unpredictable, so are international prices. There are no coffee exchanges yet in Europe or the United States. Prices are made on the spot in the street. It can take months for news of the latest prices to reach Rio by clipper. And you cannot be certain when ships will put into port to carry your exports because there are no lines that regularly stop in Rio. You are dependent on tramp ships. Fortunately, the industrial revolution is creating a vast market for coffee that your competitors in Cuba, Jamaica, and Java cannot satisfy as well as you can.

Less certain is the import trade that you also engage in. Because slaves constitute maybe a third of the inhabitants and most of the country's largely rural population are outside the money economy, the market is small. Supply is uncertain not only because of the vagaries of shipping, but also because poor docks and lighters mean goods are often spoiled in transit. And the customs house is a disaster! Even with the judicious application of bribes, goods can take weeks to be released. Moreover, with slow transport and little money in the economy, Brazilian and Portuguese retail merchants demand as much as six months to pay for goods. And if you guessed wrong about demand for certain products in this new market, you may not be repaid at all. The legal system makes foreclosure difficult.

Under these circumstances, it is not surprising that you and your fellow Englishmen will be able to control the trade for the whole of the nineteenth century; but it is surprising that you took the many initial risks to create the coffee market in the first place.

## 1.9 How the Other Half Traded

Even today, companies often find that keeping up the morale of employees sent overseas is difficult. But consider an earlier multinational: the Dutch East India Company (VOC) of the seventeenth and eighteenth centuries. Its outposts in India, Southeast Asia, Japan, and Taiwan were places where few Dutchwomen were willing to live; and while most men working for the company were quite willing to seek mates among indigenous women, this brought complications of its own. Given the cultural gulf separating these couples, it may be no great surprise that the private letters of these men are full of references to how hard it was to "tame" these women into the kinds of wives they expected. What may be more surprising is how hard the VOC, the Dutch Reformed Church, and other Europeans in Southeast Asia found it to break the *commercial* power of these women, many of whom were substantial traders in their own right.

Long before Europeans arrived, maritime Southeast Asia (including present-day Malaysia, Indonesia, and the Philippines) carried on a substantial long-distance trade. Many of the merchants were women--in some cases because commerce was thought too base an occupation for upper-class men, but too lucrative for elite families to abstain from completely. (Some elites carried this snobbery a step further, and held that noble women were also too lofty to barter in the marketplace or to visit the Chinese settlements where much long-distance trading was arranged; they were not, however, too noble to supervise a team of servants who carried out these businesses.) Malay proverbs of the 1500s spoke of the importance of teaching daughters how to calculate and make a profit.

More generally, these societies typically allowed women to control their own property, gave them considerable voice in the choice of husbands, and were often quite tolerant of other liaisons. The long journeys away from home that some of these women took even made it necessary to allow them, within the crude limits of available technology, to control their own fertility. (Herbal medicines, jumping from rocks to induce miscarriages, and even occasional infanticides were among the methods used.) Both the Islamic missionaries who swept through the area in the 1400s and the Christians who followed a hundred years later were appalled, and hoped to bring such women to heel.

But despite these qualms, the Portuguese, the first Europeans to establish themselves in this world, had found intermarrying with such women to be an indispensable part of creating profitable and defensible colonies. When the VOC gave up on importing Dutch women - having sometimes found "willing" candidates only in the orphanages or even brothels of Holland, and facing discontent among the intended husbands of these women--it turned to the daughters of these earlier Portuguese-Asian unions: they at least spoke a Western language, and were at least nominally Christian. Many had also learned from their mothers how useful a European husband could be for protecting their business interests in an increasingly multinational and often violent trading world. Councillors of the Dutch court in Batavia (present-day Jakarta), who were rarely rich themselves, but were very well placed to prevent the VOC's rules and monopoly claims from interfering with their wives' trade, were often particularly good matches for the richest of these women. Thus, arranging elite interracial marriages proved

relatively easy: but making the resulting families conform to visions hatched in Amsterdam proved harder.

The VOC's principal goal, of course, was profit, and profit was best secured by monopolizing the export of all sorts of Asian goods--from pepper to porcelain--back to Europe. In theory, the Company also claimed--at least intermittently--the right to license and tax (or sink) all the ships participating in the much larger intra-Asian trade, including those of Southeast Asia's women traders. But the realities of huge oceans and numerous rivals made enforcing such a system impossible, and the VOC also faced powerful enemies within. Most Company servants soon discovered that while smuggling goods back to Holland was risky and difficult, they could earn sums by trading illegally (or semi-legally) within Asia that dwarfed their official salaries. Here their wives were a perfect vehicle for making a fortune: they were well connected in and knowledgeable about local markets, often possessed of considerable capital, and able to manage the family business continuously without being susceptible to sudden transfer by the Company.

And for some particularly unscrupulous Dutchmen there was the possibility of a kind of lucrative cultural arbitrage: after profiting from the relatively high status of Southeast Asian women, one might take advantage of their low status in Dutch law to gain sole control of the family fortune, and then perhaps even return to the Netherlands to settle down with a "proper" wife. (Though even with the law on the man's side, such a process could be very complex if the woman used her informal influence cleverly and hid her assets--in one such case the man eventually won control of most of his wife's profits, but the legal proceedings took nineteen years.)

But if men had powerful allies in the Dutch law and church, women had the climate on their side. Foreigners tended to die young in India and Southeast Asia, leaving behind wealthy widows. Such women were often eagerly sought after by the next wave of incoming European adventurers, enabling them to strike marriage bargains that safeguarded at least some of their independence; many wed and survived three or four husbands. The rare Dutchman who did live a long life in Batavia was likely to rise quite high in the VOC, become very wealthy, and marry more than once himself; but since such men (not needing a particularly well-connected or rich spouse once they'd risen this high) often chose a last wife much younger than themselves, they tended to leave behind a small circle of very wealthy widows, whose behavior often scandalized those Dutchmen who took their Calvinism seriously.

From the founding of Batavia in 1619 until the late 1800s, Dutch moralists and monopolists waged an endless battle to "tame" these women, and at least partially succeeded; later generations, for instance, seem to have conformed much more than earlier ones to European sexual mores. And as the scale of capital and international contacts needed to succeed in long-distance trade grew larger, European companies and their Chinese or Indian merchant allies--all of them male--did increasingly shrink the sphere in which these women operated.

Eventually, when late nineteenth-century innovations--the Suez Canal, telegraphs, refrigerated shipping, vaccinations, and so on--made it more and more possible to live a truly European life-style in Southeast Asia, a new generation of Dutch officials chose to bring wives with them, or to assume they would quickly return to Holland and marry there. Even so, trade managed by Eurasian women remained a crucial part of local and regional economies: many, for instance, managed commercial real estate and money-lending operations through which they funneled profits from their husbands' activities into local development around the fringes of Southeast Asian trading cities. (Ironically, this niche may have been kept for them in part through the racism of many of their husbands, who preferred to deal with the locals as little as possible.)

As late as the turn of this century, this sphere and those who managed it refused to disappear--the Indonesian novelist Pramoedaya Toer has painted a powerful portrait of one such woman, who waged a running battle to hold on to the businesses (and children) she had handled for years against her half-mad Dutch consort and his "legal" family back in Holland. Along with most of her real-life counterparts, this fictional woman was ultimately defeated; but for three centuries, women like her had built and sustained much of the world their husbands claimed was theirs.

## **1.10 Deals and Ordeals: World Trade and Early Modern Legal Culture**

People can't trade without sharing some rules of the game. But societies have different ideas about who should pay what if merchandise is spoiled, prices change suddenly, and so on. Today, elaborate contracts, commercial treaties, and international law cover most eventualities, but in sixteenth-century Southeast Asian ports, such things barely existed. As trade boomed throughout the region--thanks to soaring demand for Southeast Asian spices in India, Europe, and above all China, and the increased availability of silver (mostly from Japan and Peru) to pay for it--commercial law evolved rapidly, but not always in the ways you'd expect.

In most Southeast Asian ports, traders were organized into ethnic communities, each of which had a headman who was supposed to keep order. So if, say, a Gujarati and a Dutch merchant fell out, their respective headmen would first meet to settle the dispute. This had its own perils for the merchants--they often lost the chance to speak for themselves, and might find their own case sacrificed to the broader interests of their communities, or the political ambitions of their headman. But the alternative -- a lawsuit in the king's court--could be far more perilous. Witnesses on both sides might be tortured, and conflicting claims were often resolved by ordeal, in the belief that heavenly strength would enable the truthful party to endure longer. In Acheh, for instance, a common practice was to make the parties put one of their hands in molten lead, searching for a piece of pottery with sacred writing on it.

Such methods were not necessarily any more "backward" than those in use back in Europe--this was, after all, the era of witch-

burnings, and the use of torture to extract truthful testimony was common to many places. In fact, a Portuguese sailor arrested for smuggling in China (and eventually freed on appeal) could not get over how much fairer Chinese justice seemed than his own. He was particularly struck by the practices of cross-examining witnesses in public (which he thought inhibited bribery) and by how everyone could swear oaths on their own sacred books (a practice that would have been unthinkable back home).

Nonetheless, polyglot trading centers, in which religious differences had to be tolerated, put the problems of relying on oaths, ordeals, and supernatural truth-finding in particularly sharp relief. And since Southeast Asia had many independent and competing ports, each hungry for the revenue that came when traders chose them as an entrepot, the sixteenth- and seventeenth-century trade boom created powerful incentives to adopt a different kind of legal system.

Since the great trade boom also sparked a wave of conversions to Islam in Southeast Asia, the new legal codes often were based on the Koran. While that particular inspiration may have displeased Chinese and especially European traders, they could hardly deny that what resulted was a better system of dispute resolution. Increasingly, judgments were based on written laws or precedents that could be checked in advance; open interrogation of witnesses increased, and--probably most comforting of all--the use of ordeal declined in major ports. This new kind of law was seeping into cases that involved no foreigners, too, and there are even some signs that it was spreading to rural areas.

But by the eighteenth century this story of legal progress had gone into sharp reverse: ordeal was becoming more common again in various cities, and complaints about lawlessness and inter-ethnic violence became more common. What had happened?

Once again, trade patterns were central. The mid-seventeenth century saw major depressions in both China and Europe: demand for Southeast Asian products slumped, customs revenues fell, and many kingdoms turned increasingly towards a rural, less cosmopolitan orientation. Worse yet, the increased power of armed, monopoly-seeking, European traders (especially the Dutch East India Company) forced more and more of the remaining trade onto their boats and into their fortified cities. Other Southeast Asian ports shrank, either through direct destruction by European guns or loss of revenue; and as these cities became less important to their rulers so did the relatively secular and tolerant way of life that they had exemplified. Ironically, the situation was often worst of all where European trading companies became the powers behind the throne. There, the desire to keep administrative costs to a minimum often led them to try to rule based on "local custom," which they thought would be the easiest kind of law to enforce: that preference often involved reviving whatever practices seemed most "ancient," and minimizing the importance of more recent, and sophisticated, urban practices that they attributed to "foreigners." (These European rulers were also all too willing to believe that the most "savage" practices they could find were the most "authentic"; and if letting custom reign in some places drove more and more business into a handful of European strongholds, this was all right with them, too.) As colonialism flourished, foreign trade ceased to be an opening wedge for legal reform throughout the region; instead it became a force that widened the gulf between "advanced" and "backward" legal systems.

## 1.11 Traveling Salesmen, Traveling Taxmen

We usually think of our own era as particularly cosmopolitan, especially in economics; the globalization of finance, production, and consumer tastes and the shrinking importance of national boundaries are clichés of our time. But for certain entrepreneurs, an earlier time and place--the Middle East, South Asia, and Southeast Asia, from about 1500 to 1750-- offered a much closer approximation of a borderless world than anything being contemplated today. And for many of these itinerant traders, it was their intense involvement in the politics of their host countries ~ not the creation of markets that ignored nations--that yielded the greatest rewards.

These entrepreneurs--mostly Persian and Chinese --fanned out across the Indian Ocean world, establishing bases from present-day Mozambique to Indonesia, and most places in between. They traded in virtually every commodity available, from textiles and grain to gold and diamonds. But what gave them their entry into kingdom after kingdom was their skill at providing a different kind of service, which today is usually reserved for a country's own nationals: collecting public revenue. They were tax farmers who, in return for a free hand for themselves and their employees, would contract with rulers to provide a set amount of revenue by taxing an agreed upon set of commodities over a given space.

From 1500 on, virtually every state bordering the Indian Ocean auctioned off the right to collect at least some of its taxes; Chinese entrepreneurs won many of the auctions in Southeast Asia, while Persians won a few contracts there and most of the auctions elsewhere. Once established as tax farmers, and granted important rights that went with those posts--the right, for instance, to inspect every cargo that went in and out of a port where they collected the customs--they gained a valuable advantage for their efforts as more conventional shippers, wholesalers, financiers, and arbitragers. And once they were locked into commitments to deliver large amounts of revenue, or had already advanced money to cash-hungry rulers, they often found themselves assuming other roles that modern states rarely give to foreigners--as generals and admirals, for instance, raising armies to protect "their" country's claims on a particular territory or trade. When Europeans arrived on the Indian Ocean scene, they, too, usually found these political merchants to be indispensable intermediaries and trading partners.

Consider, for instance, Muhammed Sayyid Ardestani. Born in Persia in 1591, he turned up in the Indian sultanate of Golconda in the 1620s, making a fortune as a horse trader. To modern ears, "horse trading" may suggest small-scale peddling in wide open markets, but it was something very different in seventeenth-century South Asia. From the 1400s on, the scale of warfare on the Indian subcontinent increased dramatically as the Mughal Empire (itself of Persian origin) sought to conquer as much as possible of present-day India, Pakistan, Bangladesh, and Afghanistan, while other states (and leagues of states) sought control over areas big enough to be viable bases for resistance. Horses were one of the two crucial sinews of power that no

Indian state could produce for itself--adequate war mounts had to come from Arabia, Persia, or Central Asia, at enormous cost. (The other major military import was a new type of cannon, available after 1500 from European traders.) In fact, horses were probably the single biggest import into India (unless we count silver, much of which was re-exported to get more horses)--and since India was probably the world's largest exporter from 1500 to 1700, the horse trade was a crucial link in world trade. Because horses had such strategic importance, virtually every state intervened heavily in the horse trade, often making it a state monopoly. Thus a would-be large-scale horse trader was likely to have two choices: accept appointment as an official of one of the importing states, and play the game of court politics, or find another line of work.

Having established himself at court (where Golconda's Muslim rulers preferred Persian Muslims to indigenous Hindu traders), Ardestani soon wangled another enormously lucrative concession: running one of Golconda's fabled diamond mines. Thus enriched, he was prepared to help the sultan procure the most basic military necessity: money.

With armies growing larger and their equipment fancier, the cost of war was soaring. Thus, rulers needed to extract more revenue from both trade and agriculture. While some kings tried trading on their own account, most found it more efficient to license existing traders and sell to one of them the position of collector of license fees and customs; such a person was in the best position to figure what the traffic would bear. Once appointed, he could easily benefit his own interests: by monopolizing information, detaining competing cargoes while he sold his, or even by accusing a competitor of "smuggling."

Sometime in the 1630s Ardestani became governor and tax farmer for the province that included Masulipatnam, then the biggest port on India's Eastern coast. Here both Asians and Europeans came to buy the textiles that unlocked the other riches of the globe: they were exchanged for spices in Southeast Asia, gold in East Africa, slaves in West Africa, tobacco and sugar in the New World, and silver in Europe. As the port's principal tax collector, Ardestani soon developed ties to the British, Dutch, and Portuguese, despite their often violent quarrels with each other. The Dutch East India Co., eager to retain Ardestani's favor, gave his ships safe conduct passes for the seas they patrolled, even while denying them to most other others. With this help, Ardestani's personal trading empire soon extended east to Burma and Indonesia. This one-man conglomerate gained still greater synergy through the interaction of these international interests with his state-licensed involvement in Golconda's village economy.

Foreign traders at Indian Ocean ports had a problem. Though monsoon shifts determined when they could arrive and when they had to leave, orders had to be placed several months in advance for the intricate woven goods they so prized. The companies were hard-pressed to finance these substantial advances, and would have been devastated if weavers or middlemen had absconded with them. Here a local partner like Ardestani had an enormous edge: not only was he cash-rich, but he had successfully bid for the right to collect the land and other taxes from a number of weaving villages, too. Golconda got more revenue by letting Ardestani collect than it could have by relying on elites within the village (who had closer ties to fellow villagers, and fewer to the court); and Ardestani, even if he promised the court enough revenue so that he couldn't squeeze out much extra for himself, gained a vital hold over the peasants, weavers, and local brokers whose tax obligations he effectively bought from the court. He could thus lock up much of the best cloth for himself and his preferred clients; both the British and Dutch learned to their cost how hard it was to bypass such middlemen and deal directly with producers.

For years, Ardestani went from triumph to triumph. In the 1640s he served as a general in one of Golconda's many campaigns to capture more of coastal India; he bought up more and more tax farms; and he amassed a personal bodyguard of over 5,000, complete with European-made artillery.

Eventually, he fell in what was probably the only way he could have fallen. After losing a factional quarrel at court, Ardestani was arrested by a new sultan who feared he had become too powerful. But even that defeat was temporary; using some of his immense wealth to buy his release, Ardestani soon defected to the Mughal court, where he was given an aristocratic title and resumed his old activities on new terrain. Such a switch was not unusual. Many tax-farming merchants served several courts during their careers: arresting one and then letting him buy his release was often just a way of squeezing one last bit of cash from a laid-off political appointee. And it would not do to treat such people too harshly, even when dismissing them. Most of these successful itinerants had relatives, who performed the same functions elsewhere, and nobody needed to make enemies who were powerful at the courts of other states; besides, many of the records that the new tax farmer would need were in the old farmer's private hands. (In fact, the transfer of accounting methods from business to the tax rolls was one of the most important long-term legacies of merchant tax-farming to statecraft all around the Indian Ocean littoral.) Indeed, foreign tax farmers were such an essential part of South Asian commerce and politics that it was a long time before anyone tried to do without them. Thus, when the English East India Company conquered Bengal in 1757, it did not try to install a new sovereign; instead the Company forced the existing ruler to appoint it-a new, corporate type of merchant--to the time-honored post of chief tax farmer.

## 1.12 Going Non-Native: Expense Accounts and the End of the Age of Merchant Courtiers

Corporations have always wanted to keep their employees' expense accounts under control, right? Well, it hasn't always been that simple. In fact, the British East India Company of the seventeenth and eighteenth centuries--one of the first recognizable antecedents of today's multinational corporations--found that it wasn't at all easy to get this point across. When the company's accountants started to balk at items like the bill for feeding a tiger on the estate of their chief representative in Madras, they weren't enforcing norms that everyone understood. They were, in fact, establishing a modern way of doing business that was

rather shocking at the time, and which was only sold to their employees as part of a much broader set of ideas about race, purity, and the honor of a good English businessman.

Part of what was new was that the East India Company was a corporation. Earlier firms that had far-flung networks were partnerships of various sorts, so that a firm's agent in a distant city had an equity interest in the business's profit. If he wasn't yet a partner, he still usually had some interest in the firm's long-term health, or at least in his reputation back home. (Chinese merchant families, for instance, often sent young nephews or servants to manage the business overseas for a while; only when they returned with adequate accounts were they permitted to buy into the firm, and only then was a marriage arranged for them.) But EIC employees rarely held much stock in the firm—people who had enough capital for that were not usually the ones willing to go to India to try to make their fortunes. So the company's new organizational form intensified its potential conflicts with its agents.

But what was more important yet was that the EIC (and its Dutch, French, Danish, and other European cousins) was not just any corporation: it had a legal monopoly on imports from Asia back to the mother country, and a license to seek monopolies or monopolies in other markets, using force if necessary. Indeed, as a firm that had what for the time were enormous up-front costs to cover—costs for building forts, providing armed escorts to protect its ships from other European powers, and so on, as well as more routine business costs—the firm more or less had to seek monopolies elsewhere, too, using its fighting forces offensively in order to help pay for them. But that pushed the company in two contradictory directions at once, with fateful consequences for both our modern idea of doing business and the development of colonialism.

On the one hand, trying to maintain monopolies required giving the company's local agents enormous latitude to use company funds for politics: to butter up princes who might grant lucrative local concessions, to socialize with local merchants and nobles (often the same people) who controlled stocks of desired goods, and to use force and make alliances with local power-holders who might offer a better deal than the incumbent rulers of some area. Thus a successful merchant had to be a general and a courtier as well. When the Madras agent sent in the bill for his tiger's upkeep, he no doubt felt that he was quite justified in charging the firm for the cost of looking grand enough to gain access to the necessary court circles. And when Christian merchants took local Hindu wives (even if they also had a wife back in Europe), patronized religiously oriented local cultural events, and so on, they were not only enjoying themselves, they were fitting in as they needed to. For the first century or so of the EIC's operations, London apparently agreed; becoming deeply enmeshed in local society was understood to be an essential part of doing business.

But on the other hand, running a far-flung business—especially one that sought monopoly—required keeping a very tight reign on these same employees. Very few of them expected to get rich on their salaries alone: instead they also carried on extensive trading on their own account. Inevitably, some of these activities conflicted with profit maximizing for the EIC. London became more and more concerned about whose interests were actually served when agents were living it up in the company of local elites.

As accounting methods became more sophisticated, headquarters tried very hard to impose more precise rules about allowable expenses, but it was never all that hard to evade them if you wanted to. One just had to learn that one's tiger, banquet staff, and so forth needed to be called something else on one's account books.

So morality would have to be called on to plug the gaps in long-distance supervision. Increasingly, these dry financial rules were accompanied by more general moral instructions, trying to convince the company's agents that they could not remain true Englishmen (or Scots, or whatever) if they mixed too much with "the natives." (These changes went along with, and fed into, a general hardening of European racial attitudes and increased belief in Europeans' own superiority in the 1700s, and an increased sense that the sober businessman should be different from the libertine aristocrat.) By the end of the 1700s, local "wives" had been redefined as "concubines" or even "whores"; both they and the men who lived with them were even excluded from the fortified European settlements during certain wars and panics near the end of the century. Entertaining local elites never ceased, but it was increasingly seen as a regrettable necessity and a threat to the soul (and national identity) of any European who overindulged: a powerful supplement to the much drier observation that it was a threat to the firm's dividends. The era of great merchants as cosmopolitan princes, joining in whatever the local version of the noble life was, was ending; the era of the Western trader or colonial bureaucrat in a separate house on the hill, living by the customs of his home country and trying to keep as neatly separated from local customs as the two sides of a ledger, was dawning.

## **1.13 Empire on a Shoestring: British Adventurers and Indian Financiers in Calcutta, 1750-1850**

It's as basic as Econ 101: give investors in a capital rich country the chance, and they will jump at the higher returns available in a country where capital is scarce. The notion still drives hopes and fears wherever rich and poor economies are being linked, from the Rio Grande to the Elbe. (Though in fact, capital often still flows the other way, as it did out of Latin America in the 1980s.) This expectation of how money should flow was just as strong 200 years ago, when the British East India Company established new colonies at Madras, Bombay, and Fort William (Calcutta)—beachheads through which investment was expected to follow an already lively trade. The highest hopes were generally held out for Calcutta, which offered access to the huge and relatively rich Bengal region.

So at the end of Britain's first century in Calcutta, who was financing Anglo-Bengali trade, India's first steam-powered industries, and the British administration itself? Ram Gopal Ghosh, Motilal Seal, Dwarkanath Tagore, Ashutosh Day ...

Bengali merchants all. In fact, it was not until the 1860s that significant British investment flowed to India. By that time a financial panic begun in London had bankrupted the great Bengali merchants--and the interracial import-export agencies and banks they had founded--leaving a clear field for the British. The children of Bengal's trading elite had turned to other pursuits. Before long some Europeans could be heard explaining that Indians simply weren't cut out for entrepreneurship.

The rise and fall of these financier-merchants began before the British with the tribute system of the Mughal dynasty. As conquerors from India's relatively poor far North, the Mughals exacted tribute from further South, where an ecology suited to paddy rice, combined with easy access to coastal shipping, had created a much richer, more commercialized society. Much of the tribute money then went back south to purchase luxury goods for the elites of Delhi and Agra. Merchants who already did a booming export trade in Indian textiles and other goods (mostly to the Middle East and Southeast Asia) arranged this trade, too. Before long, those rich enough to take more risks moved into finance, helping both the government and the noble family anticipate their revenues.

When the Mughals crumbled in the 1700s, this trade shifted but did not dry up, and these merchants continued to handle public finance for their various successor states. Indeed, the increased bargaining power of merchants dealing with a plurality of states and the revenue needs of warring principalities made the commercialization of political power one of the growth industries of eighteenth-century India. At first the British coastal colonies were just three more states formed by cash-short militarists, little different in their needs from Oudh, Rohilkhand, or other pieces of the collapsing empire. They paid their bills (at 8 to 12 percent interest) no more or less reliably than others; and the complexities of remitting their savings to home meant big business for Calcutta bill-changers who could add a London bank to their already far-flung network of correspondents.

But these remittances were part of why the English *were* different. Most of them aspired to make fortunes and send them home, not to be the princely patrons of an Indian court. As a result, they were not inclined to spend the tribute they exacted on Indian cloth or jewelry; they wanted to export currency. And that was a big problem: India, poor in precious metals, had imported bullion for centuries. Now, a sudden net drain of coin (5-6 million pounds a year from India as a whole) created chronic liquidity problems, even as growing trade and the tantalizing possibilities of new technology begged for investment funds.

Bengali merchants in Calcutta tried to fill the region's diverse financial needs by founding interracial "agency houses" in partnership with British sojourners. The Bengalis provided capital, local knowledge, and contacts in the vast hinterland along the Ganges. Some of the British were mechanics, who provided knowledge of new wonders like the steam engine and mechanized cotton spinning; others offered little besides presumed access to their powerful countrymen. Very few were significant merchants in their own right. Meanwhile, the uncertainties and rumors of corruption surrounding the East India Co.--which sometimes supported and sometimes obstructed new developments in its dominions--discouraged long-term commitments of money from London.

Along with financing government and trade, the agency houses pioneered many promising new ventures: coal mines with steam-driven pumps, new salt-making methods, tugboats, iron bridges, tea plantations, sugar-refining, and even railways (though in this last case, only on paper). They even bid on projects beyond India, such as a proposed steamer mail service from Calcutta to Suez. But their efforts were perpetually undercapitalized: there was simply too little money around for simultaneous expansion in so many areas, and what money the merchants could amass from Calcutta's Europeans was always subject to sudden withdrawal. Moreover, the relatively small number of these houses created numerous conflicts of interest. It was common, for instance, for a house that managed a firm it did not own to make suspicious deals between itself and a firm in which the house (or one of its partners as an individual) had a big stake.

Worst of all, none of these houses could escape heavy dependence on the tail that sometimes wagged the East Indian dog: Britishers' attempts to send money home. Unable to take out as much currency as they wanted, the English looked for other easily negotiable export commodities: opium, indigo, cotton, and (a bit later) tea. But since the supply of these exports was often driven more by the need to find some vehicle with which to take home wealth than by changes in demand (largely a function of harvests elsewhere), all were subject to periodic booms and busts.

When a gigantic bust hit indigo in the 1840s, it became clear that the diversity of the houses' investments was more apparent than real. Firms that foreclosed on indigo plantations kept them running despite low prices, needing to realize some cash to stay in the rapid-turnover remittance business; with supply and low prices thus sustained, other plantations then followed into bankruptcy. Coal mines found that their biggest customers--the same plantations, who used coal for the extensive boiling that indigo needed--were defaulting; tax arrears shook the governments the houses lent to. Since indigo and opium were essentially functioning as a substitute for money, the collapse of indigo prices left everyone illiquid. Desperate directors--both Indian and British--resorted to creative accounting, lent themselves large quantities of their firms' money, and waited for prices to rise again; but since nobody could afford to withhold their indigo from market, the spiral continued. When a London correspondent refused to honor drafts on the Union Bank, Calcutta's largest, the house of cards tumbled down; censorious British newspapers focused on the scandals of the panic's last stage and "the lack of business ethics in Bengal," rather than on deeper causes closer to home.

The ruined Bengali merchants did not return to commerce. Many sought the relative safety of land-holding, or of the civil service (soon to expand greatly as all of India was absorbed into the British Empire in 1858); others chose education, medicine, or the arts. (Dwarkanath Tagore's grandson Rabindranath won a Nobel Prize for his poetry.) A new corporation law encouraged the creation of all-British banks--which then rarely lent to nonEuropeans. And in the 1860s, railway construction-

requiring patient capital on a scale only industrialized nation could provide--finally began to elicit the English investment that had been absent before. Alone at the top of the new Indian economy, the British now began to "introduce" entrepreneurship.

## 1.14 What Did They Know and When Did They Know It? The Growth of Knowledge and East-West Trade, 1500-1800

Nowadays, traders have lots of ways to find out about other societies they want to deal with; but for centuries, they had little to go on. And it is not always clear who was most in the dark.

Before 1500, when Eurasian trade went mostly by land, only a handful of people ever crossed from one end of Eurasia to the other, and the stories that circulated were at least as likely to be fiction as fact. Many Europeans, for instance, thought the silk they bought from China grew on trees. Even once sea-borne travel made it more practical to make the round trip oneself, old stories died hard. The "travel diaries" of John Mandeville, a fourteenth century fraud who never left Europe, reported seeing men in Asia who had no heads, but eyes in the middle of the chests; fire-breathing beasts; trees that grew sheep instead of fruit, and much other nonsense; yet at least ten more editions of this book were published in late seventeenth- and eighteenth-century England, far outselling various more reliable works.

Lacking any way to directly verify what they read, people used whatever criteria they could, with sometimes peculiar results. For instance, though various Jesuit missionaries brought back reasonably accurate accounts of China, Japan, and Southeast Asia, many English readers discounted most of what these works said, since they "knew" from political struggles closer to home that Jesuits were deceitful. Other times, knowledge simply didn't travel well. For instance, while Russians were busily mapping Siberia in the seventeenth and eighteenth centuries, most English maps still had a big blank space north of China, and the Royal Society was still trying to find out for sure if Japan was attached to the Asian mainland somewhere up at its northern end.

But even so, the most knowledgeable Europeans knew more about many Asians than Asians knew about Europe. This is not that surprising since it was Europeans who were sailing to Asia rather than vice versa, in part because people in the wealthiest Asian societies still tended to think of Europe as the backwater it had been a couple of centuries earlier. There were, for instance, virtually no translations of any European works available in the Muslim world until the end of the eighteenth century; at that point, Europeans already had translations of the Koran, at least some works of Confucius, and a wide variety of Hindu texts. In India and China, there was more curiosity about European science (especially astronomy) and gadgetry, but still very little about religion, politics, or even languages. While various elite institutions in Europe--universities, royal academies, and the like--were undertaking systematic study of foreign lands, there were no equivalents in Asia. When it came to organized, institutionalized knowledge of the "other side," the East-West contest was no contest at all.

Yet on a more popular and practical level, the story may have been different. Chinese emperors, to be sure, could afford complete ignorance of Europe, but many people on the docks of Canton could not. A lot more information circulated there, and at least some members of the elite knew how to tap that knowledge.

For instance, in 1740, the Dutch in Batavia massacred a group of Chinese laborers whom they believed were plotting rebellion. The Chinese emperor asked officials from coastal provinces (where the migrants came from) to discuss possible retaliation. China had no ambassadors overseas, and no fact-finding missions were sent. Yet the governor of Guangdong knew that the victims were mostly sugar growers and millers who sold to the Dutch East India Company; that the market for sugar from Batavia had slumped in recent years; that the Dutch also ruled Sri Lanka, where there was a labor shortage (partly due to a prisoners' uprising), and had considered deporting these laborers from Java to Sri Lanka; and that the Dutch official most responsible for the massacre had been suspended from his duties. He appears to have learned all of this by questioning merchants and sailors back from Southeast Asia. Popular curiosity was not limited to special events--seventeenth- and eighteenth-century fiction from South China is full of references to Western clocks, music boxes, and other gadgets, collected by the rich on China's Southeast Coast.

And though there was much the Chinese didn't know, some of it was hardly worth knowing. For instance, the first accurate world map--including the Americas--in a Chinese book comes from a guide to the "countries and oceans of the world" printed in Canton around 1701. Its descriptions of countries are short but accurate. What may be most interesting, though, is what it does not do. It does not organize the world into continents or people into "races"--divisions that the Europeans of the day were starting to take as natural. But continents aren't natural at all--nothing but convention separates Europe from Asia along the Urals, or Africa from Asia at Suez. So it makes perfect sense that the Chinese guide ignores these categories, instead proceeding country by country along the seacoast from South China through Southeast Asia, along the Indian Ocean around the Cape of Good Hope and up the Atlantic Coast. It groups people together who face the same body of water, so that East Africa goes with the Middle East and the west coast of India. And when it comes to "people of the Great Western Ocean" (the Atlantic) it makes no sharp distinction between Africans, Europeans, and Americans.

This approach made a lot of sense given what the Chinese saw of the Atlantic world: ships carrying New World silver and tobacco, with crews that were mostly European, but also included some Africans. It makes a lot of sense in terms of the way we ourselves now understand the Atlantic--as an interdependent zone that people from Africa, Europe, and the Americas built together (if not on equal terms). And it makes sense in terms of modern biology, which tells us that "races" don't really exist, anyway. So when this Chinese guidebook did not create categories that separated Portugal and England from Senegambia and Massachusetts, did it really show greater ignorance than the Oxford dons of its day? Or did it just not share in the form of

ignorance that was then coming into fashion in the West? Three centuries later, that view from the docks in Canton looks pretty perceptible.

# The World that Trade Created

## Chapter 2: The Tactics of Transport

To trade, goods have to be moved from seller to buyer--the more cheaply, the more trade there is and the greater the profit. People have struggled for centuries to bring down transport costs, often in ways that are barely perceptible: a careful study of the pottery containers in which olive oil was shipped in Roman times shows a slow but steady trend towards thinner walls, so that less weight was added per volume of oil shipped. But until the age of steam power, there were some fundamental limits to what could be done. Even since then, the story of transportation is not a simple one of technology conquering distance, much less one of the conquest of distance always bringing people closer together or increasing trade.

### Natural Limits

Until the invention of the railroad, water transport was much more energy efficient than land transport. A bag of grain in late imperial China rose almost 3 percent in price for every mile it had to be carried overland; a lump of coal 4 percent. So where goods were heavy the cost advantages of water transport could be immense: as late as 1828, some Atlantic seacoast towns in the United States found it cheaper to use English coal for heating than to lug wood from the enormous forests that started just a few miles inland.

Nonetheless, far more ton-miles of goods went by land than by water. Much of this was simple geography: since the vast majority of production and consumption didn't take place right next to waterways, almost everything that moved went at least partway by land. Moreover, energy efficiency and economic efficiency were not the same thing. True, an animal carrying a load had to eat, but if there was plenty of grass by the side of the road, this might not cost the shipper anything. And if the animal was going to be on the move in search of grass anyway--as was the case with the huge Indian bullock trains in reading 2.3 ("Seats of Government and Their Stomachs")--even long-distance land transport could be astonishingly inexpensive. Often one didn't even need to build much of a road--if the land was flat and enough of it uncultivated, the beasts would simply make their own paths as they went. Only where the population was too dense (and land too expensive) for foraging along meandering paths was pre-industrial land transport bound to be painfully expensive--and these were often places where waterways were good. (Both the Netherlands and China's Yangzi Delta, for instance, despite plenty of money, trade, and engineering skills, had dismal road systems: there was simply no way to bring the costs of land transport down to where they could compete with water anyway.)

In Mesoamerica, the absence of waterways and large beasts of burden did not prevent the Maya and Aztecs from moving goods over enormous and astoundingly difficult terrains. Trade traveled thousands of miles on the backs of men. Packtrains of hundred of *tamemes* (carriers) linked the aristocracy of distant areas. But here it was coerced labor and tributary goods, not commodities produced for profit, which filled the roads (see reading 1.6, "Aztec Traders"). Status and power, not economic calculation of gain and loss, motivated trade.

Whether on land or on water, natural constraints mattered. Except where geography was unusually favorable, it was mostly products with high price-to-bulk ratios that were worth shipping long distances: silks, gold and silver, sugar, and medicinal herbs, not wheat, limestone, or wood. Thus transport powerfully shaped the geographic division of labor and the nature of demand, even where it was good enough to allow a long-distance division of labor to emerge. Sending bulky rice down the Yangzi River and expensive textiles back up against the current was economically viable; reversing those directions would not have been. Shipping fine swords and linens from Spain through Argentina. Potosi was profitable, but exporting wheat, mules, or wine from northern Argentina to Spain was inconceivable.

Transport costs limited the size of cities as well, because bulky goods like food and fuel could only come so far before they became too expensive (see "Seats of Government and Their Stomachs")--unless, as in the exceptional case of Potosi, the lonely city sat atop a mountain of silver, enabling the residents to pay sky-high prices without flinching.

Before the nineteenth century, maintaining a competitive edge in trade was difficult. Centers of overland commerce such as the cities along China's famous Silk Road depended upon political peace to ward off the depredations of armies and bandits. Overland trade routes varied with the fortunes of war. Maritime trade advantages were also at risk because the key to cheap shipping was ships. And ships, in turn, needed masts made from large, difficult to transport timbers. From Venice to Xi amen to the Americas, great shipping and trading powers found that they either had to secure increasingly remote waterside sources of big trees or allow others to take over shipbuilding. By the eighteenth century, South China had many of its big junks built in Southeast Asia; on the eve of the American Revolution, one-third of the British merchant fleet was built in the New World, while the Royal Navy struggled to monopolize potential masts from places as remote as Quebec and Madras (see reading 2.1, "Woods, Winds, Shipbuilding, and Shipping"). Many of the Portuguese ships that plied the triangular trade between Europe, Africa, and America were built in Bahia, Brazil.

Nature also shaped the rhythms of trade and the places where it was conducted by constraining transportation. All across maritime Asia--from Canton to Mocca--trading schedules were dictated by the monsoon winds. Since strong winds blew consistently in one direction for several months and then stopped, and then blew consistently the other way for months, it made no sense to fight those winds. A trader went as far as he (or occasionally she) could in one direction and then stayed

around until the wind reversed; his goods were then picked up by another merchant who had arrived earlier and knew precisely how long into the next season he could safely stay and still have enough days of favorable wind to get home. Thus, instead of Chinese traders spending two or more monsoon seasons (and years) sailing all the way to, say, Persia with silks, it made more sense to sail out one monsoon season and exchange with intermediaries based in between and thereby return home with frankincense and rugs. A series of emporia developed at sites such as Melaka, Surat, and the Muscat that had more to do with how far one could travel from there in one sailing season than with what goods could be produced locally. The result was a remarkably lively and cosmopolitan chain of port cities along the Asian littoral, but in many cases these cities had only weak relationships with their immediate hinter-lands.

And despite its remarkable efficiency, the system had certain natural limits that no advances in either seafaring or commercial institutions could exceed in the days before steam. Since no merchant could turn back to home before the wind shifted, there was no way to cut the amount of time away from home (and thus the cost of sustaining the crew away from home, as well as the turnover time for capital) below a certain level. In the Atlantic, by contrast, the wind patterns imposed less severe constraints. Major ports arose either because Spanish mercantilism designated them as monopoly entrepôts such as Havana, Cuba, Veracruz, Mexico, and Cartagena, Colombia, or because British laissez faire allowed economics to dictate their growth. In the former case, government fiat rather than winds set the departure time. In the British case, a shipper who could cut his turnaround time in port could turn his capital over faster, and cut his expenditures on wages for his crew as well. This is precisely what happened in the eighteenth century, as Scottish traders built warehouses, appointed agents to collect goods in advance, and found other ways to cut their time in New World ports by several weeks on each trip. The results were dramatic, and not only for the traders themselves. As trans-Atlantic shipping costs fell thanks to these innovations, colonists could move further inland (thus incurring higher local shipping costs) and still get their tobacco, rice, and other goods back to Europe at competitive prices. And since most settlers had cash debts to pay (for passage, start-up costs, and industrial goods), it was only when Ont: could successfully export from further inland that Europeans could begin populating areas further from the coast-with all that implied for them and the people they displaced. (See reading 2.4, "Pioneers of Dusty Rooms.")

## Limits of Nature

But even if geography and meteorology shaped pre-industrial transport--and thus economies--their rule was not absolute. Atlantic winds may have been necessary for the breakthrough in shipping costs discussed above, but they were not in themselves sufficient to cause innovation. One not only needed the cost-conscious Scottish traders themselves, but a more or less monocultural pattern of trade. Delegating responsibility for acquiring goods in Baltimore to a local agent was relatively easy if the agent knew that the only thing to purchase in the Chesapeake was tobacco, and that the market back home for tobacco had become so huge that no one ship's cargo could glut it. (It would become even easier in later centuries as standardized grading for commodities developed--see Chapter 6, "Making Modern Markets.") Delegating to an agent was much more difficult when he had to pre-purchase your cargo for a trip home from, say, Melaka, where a typical ship carried a little silk, a little tea, a little porcelain, some incense, some sugar, and so on--whatever was available at a good price (none of it produced locally) in quantities small enough that they would not glut the market back home.

Sometimes it wasn't even clear whether a particular innovation was more a matter of improved control of nature or improved control over people. Shortly before 1600, the Dutch began using a new kind of ship called the *fluitschip*, on their voyages to and from the Baltic. Though clunky and slow-moving, the *fluitschip* could be sailed with a much smaller crew than most then in use, cutting costs enormously. But the Dutch did not use these cheaper ships in their push into Mediterranean shipping, much less on Atlantic, Pacific, or Indian Ocean routes. The reason? The Baltic routes had been cleared of pirates (and rival governments, often pretty much the same thing) but these other routes had not. The much smaller crew of a *fluitschip*, on a slow-moving vessel with minimal gunports, would have been a sitting duck.

Natural port advantages did not guarantee continued success. The port of Mokka, a major entrepot between Europe and Egypt on one hand and Persia and India on the other, became land-bound as its harbor silted up. Other times, rather than nature dooming a port, humans who inherited, bought, or stole a site with favorable geography could try to exploit it too much, and so lose their advantage. The Isthmus of Panama almost became one such story: though it was a logical place for a badly needed Atlantic-Pacific canal, its reputation was so tainted by a French company that made the first attempt (and lied to investors about the difficulties it was having) that it nearly lost out to a trans-Nicaraguan route. By the time the rival machinations of competing groups of investors and imperialists were over, Panama had the canal, but the United States had seized the relevant part of Panama. (See reading 2.7, "Scandalous Panama.")

In other cases, just the possibility that people might try to monopolize a locational advantage could spur pre-emptive action: thus fears that the Dutch might squeeze traffic through the straits connecting the Indian Ocean and South China Sea once they were restored to power there (though the Dutch, desperately dependent on Britain in the aftermath of the Napoleonic Wars, would have been very vulnerable) were enough to convince Stamford Raffles to set up an alternate port, committed to free trade, at this chokepoint of world trade: the city of Singapore. (For this, Raffles was punished by his more cautious, diplomacy-minded superiors: see reading 2.6, "Winning Raffles.")

### **Power-Driven Transport: New Time, New Space, Old Conflicts**

Steam and the railroad would scramble the world's trade geography in the nineteenth century. With the rise of steam power human control increased enormously--but not infinitely. Steamships could go upstream almost as easily as downstream, and

could sail the ocean at any time of year. But in at least some stormy seas, they did so at their peril. Steam shovels could dig canals, dredge harbors, and so on, much faster and more effectively than ever before. Peacetime freight rates went into free-fall, or so it seemed: about 80 percent per pound for most commodities crossing the Atlantic between 1815 and 1850, and then another 70 percent from 1870-1900, for a cumulative fall of almost 95 percent.

The changes on land were even bigger. Railroads could, for the first time, move heavy loads cheaply over long overland stretches, but not where there was too steep a grade. (Since trains are far too heavy to rely on inflatable tires, they use smooth wheels. Thus, there is very little friction between railroad wheels and track, and going up steep grades is almost impossible—even today, it is impossible to build railroads on grades as steep as those that cars and trucks, with road-gripping tires, can handle.) Moreover, the enormous expense of railroad-building through under-developed areas meant that even a large amount of transport cost savings could go with disappointing earnings.

Railroads also created their own peculiar needs. It was, for instance, very expensive to keep a steam locomotive waiting at a station to be loaded, and extremely slow to start one up again if you turned it off. Thus, loading stops had to be brief, and grain (for instance) came to be loaded from elevators that released a flood of wheat into the car when opened, rather than loaded in separate bags. But using grain elevators meant giving up on keeping farmer Jones's wheat separate from Farmer Smith's—with far-reaching consequences that we explore in Chapter 6.4 on commodities in the modern world economy.

By vastly increasing the speed and volume of the carrying trade while dramatically slashing prices, railroads and steamships set into motion a conceptual revolution in time, space, and commodification. With steam, the Atlantic and Pacific shrank to ponds and continents to small principalities. Distant neighbors became proximate, indeed closer to others in ports or on the same rail lines than they were to people nearer in terms of miles but removed from the transportation networks. With the transportation bottlenecks gone, time was money. Greater volume meant greater profit rather than gluts. As time and distance evaporated, the middleman between buyer and seller often lost importance. Manufacturers and financiers came to predominate over merchants; advertisers—who tried to bridge cultural distances, which closed more slowly than physical ones—also grew in importance. The global supermarket began taking shape in the nineteenth century. Luxuries no longer dominated the long-distance trade. Beef and mutton from Argentina, Uruguay, and the United States and wheat from Australia, the United States, and India fed hungry European populations; Japanese mills mixed U.S., Indian, and Chinese cotton. As goods from numerous countries competed in the world's markets, the need for standardization and commodity markets arose.

Thus transportation not only determined profit, loss, and volume of trade. It created neighbors, shaped the sense of time, redrew the maps, and unleashed the conceptual revolutions known today as commodification and globalization. But as much as the transport revolution changed, it still has not, as some people predicted (and continue to predict), made geography irrelevant.

For one thing, people need to seize opportunities, and even societies very attuned to profit do not pursue every chance. The late nineteenth-century United States, for instance, busily developing a conquered continent, largely turned its back on the sea, letting a once-powerful merchant marine evaporate and abandoning even routes (such as those to Brazil) where it seemed to have a natural advantage.

In other cases, people did seize opportunities to bridge physical distances, but inadvertently increased cultural distances. In the Dutch East Indies (now Indonesia), for instance, a barrage of late nineteenth-century changes seemed destined to strengthen relations between colony and motherland. Improvements in ocean shipping were compounded by the building of the Suez Canal, which helped cut sailing times by almost two-thirds in just a decade; transoceanic cables meant that the news could now, for the first time, move almost instantaneously—at a fraction of the cost of goods. But in the context of colonialism and late nineteenth-century racism, divisions actually increased.

With more European goods available (as well as advances in medicine), the Dutchmen who ruled the colonies found that for the first time they could find middle-class Dutch women to join them; inter-racial unions declined sharply, and with them one tense but real bridge between communities. And as it became more feasible for Dutch administrators and businessmen to return to Europe (either for visits or to settle down with the wealth they had accumulated overseas) their sense of belonging to an "East Indies" society became much weaker. Meanwhile, Chinese laborers and merchants, discriminated against by both European rulers and most indigenous communities, found that the telegraph allowed them to maintain closer ties to China; Chinese-language schools, knowledge of home-country affairs, and fundraising for Chinese causes all increased. And for Indonesia's Muslim majority, the re-routing of shipping through the Canal (rather than around the tip of Africa) made it much easier to keep in touch with Middle Eastern developments, including the rise of a reform-minded "modernist" Islam. So here, at least, advances in transport and communications did more to create separations (both within the colony and between it and the metropole) than to bring people together. Technology can change the ease with which people move themselves and their goods elsewhere; but only humans determine what they think of themselves, each other, and their goods.

## **2.1 Woods, Winds, Shipbuilding, and Shipping—Why China Didn't Rule the Waves**

Quick—what were the largest ships in the pre-industrial world? Not the Spanish galleons that brought New World silver across the Atlantic; and not the British men o'war that finally drove those galleons from the sea. Both were outclassed by the "treasure ships" made for the Chinese navy.

First put afloat centuries before those European vessels, the treasure ships ranged far and wide in the 1300s and early 1400s, touching the East African coastline and, some believe, rounding the Cape of Good Hope--unmatched distances for that era. At 7,800 tons, the biggest of these were three times the size of anything the British navy put afloat before the 1800s.

With such a big lead in naval affairs, it seems a wonder that the Chinese never became a sea power on par with latter-day England, Spain, Holland, or Portugal. No wonder, though, if you examine history closely. China's stint as a sea power all but ended when the Ming Dynasty withdrew support for treasure ship journeys after 1433. From then on, Chinese ships stayed to the east of present-day Singapore. Within a few decades, the initiative in long-distance exploration--and later in trade, too-- passed to the Europeans.

The government's policy shift began when a new faction gained influence in China's Ming court. Its members advocated a greater focus on domestic and continental matters, emphasizing agricultural production, internal stability, a military buildup and colonization at the edges of the Central Asian steppe, and refurbishment of the Great Wall, designed to repel invaders.

That explains the end of government-sponsored navigation. But, though many think all of China turned inward along with the government, the real story is very different. The curtailing of private sector ocean trips involved more complex factors. Private traders became more active than ever on the Southeast Asian shipping routes, but never went as far as the treasure ships had. Unlike the Ming court, private traders based their decision on market forces.

Timber for big boats was expensive, especially in busy trade centers, since large populations meant heavy use of firewood and building wood. China wasn't alone in the wood shortage. Until coal became widely available as a suitable cooking and heating fuel, Europeans struggled with shortages. All over Europe, as well as in Japan and parts of India, governments went to great lengths to control the price and supply of wood. Venice's shipyards fell silent for lack of lumber, while the British took extraordinary measures to save theirs, even passing laws that reserved all trees of a certain height and strength in the forests of New England for the Royal Navy. (Enforcing the laws proved to be another matter, though.)

The Chinese government simply let the timber market work. Once the Ming stopped building massive and expensive treasure ships, they paid little attention to timber prices. Their successors in the Qing Dynasty, which held sway from 1644 to 1912, engaged in a short-lived attempt to fix prices during an early palace-building spree, but quickly left it to the market.

The market responded by developing a huge private trade in timber, which grew up wherever there was water transport. Logs were floated hundreds of miles from interior forests down aU of China's major rivers and canals to meet the needs of the densely populated regions near present-day Shanghai, Canton, and Beijing. Regional centers sent back cloth, iron goods, and other manufactures. Wood also moved on the seas, from Manchuria, Fujian, and even from present-day Vietnam and Thailand.

But these methods were only good for tapping resources already close to water routes, and coastal and riverside forests were quickly used up. Moving logs from the deep forests used too much labor, so by the eighteenth century the cost of building a boat on the central China coast had risen about three times as fast as the price of rice, China's staple food, and our most reliable indicator of the general cost of living.

Chinese shippers took the logical, market-driven way out: contracting for construction of boats at various Southeast Asian locations, often in shipyards run by their relatives or other Chinese emigrants. China wasn't closed, and the market didn't halt because of artificial factors. There just wasn't a market for the outsized "treasure ships" anymore. Instead of financing big ships for long hauls to India and the Middle East, Chinese traders commissioned smaller vessels, capable of carrying porcelain and silk to midway points, where traders would buy Indian cotton and indigo for the return trip. The shorter routes also fit better with weather patterns, keeping Chinese merchants out of far flung ports where shifting monsoon winds could strand a ship for months. Maximizing profit meant relying on the entrepots that developed where the winds made it convenient to meet; a series of these meeting places created an efficient marketing network that allowed the exchange of products all the way from the Mediterranean to Japan, China, and Korea, without anyone being gone for more than one season.

Deference to the weather proved good business, but was a detriment to the development of shipbuilding and open ocean navigation. To make big ships and long voyages worth the investment required ulterior motives, such as missionary work, military competition, or the desire to monopolize the seas and bypass the competitive markets in all these port cities. The Chinese left such ambitious projects to the Europeans, who proved willing to defy market principles, thereby launching a new era and pattern for world trade.

## 2.2 Better to be Lucky than Smart

Christopher Columbus has been presented to us since our first days in school as the exemplary visionary. Single-handedly he seems to have tom Europe from the Middle Ages and shoved it into the modern era. He forced provincial Europe to become a world power and to dominate the world economy because of his splendid grasp of the real world and its possibilities. Was Christopher Columbus truly the Great Man in History, the keen European entrepreneur who overcame ignorance and superstition to reshape the world?

Cristoforo Colombo (he came to prefer the Spanish "Colon" but never used "Columbus" in his life) was very much a man of the Mediterranean mercantile world. The son of a Genoese wool weaver and merchant, he went to sea by the age of

fourteen, visiting much of the Mediterranean. Genoa was not only a thriving center of trade in general in the newly emerging capitalist world economy, it was a center also of the African slave and gold trades. It was not accident that Columbus would become the New World's first slave trader. From an early age he became enamored of the hunt for wealth, and was not too scrupulous about how he obtained it. He served for at least a time with a corsair crew plundering ships. When he was shipwrecked off the coast of Portugal in 1476, he had been raiding Venetian compatriots. For the rest of his life, Columbus would demonstrate a facile ability to shift allegiances to suit his own interests.

Providence had thrown Columbus onto the shores of the world's greatest sea-faring nation, where great strides in mapmaking, shipbuilding, and navigation were well under way. Since early in the fifteenth century, the Portuguese had developed the quick, maneuverable lateen-rigged caravel ships, charted the seas and skies, and developed navigational instruments such as the quadrant to determine latitude. These advances were driven not by an abstract love of knowledge, but a desire to enrich themselves in the fabulous markets of Africa and the Orient. By the time Columbus was carried by chance to Portugal, the Portuguese, by design, had discovered and peopled the Atlantic islands of Madeira, the Azores, and the Canaries, and had sailed more than halfway down the coast of West Africa.

Columbus became inspired to sail west by the fever of discovery and navigational derring-do that was in the Portuguese air. He studied maps. Most importantly, he married the daughter of the governor of one of the islands of Madeira, Europe's furthest western point. The odd birds and branches that washed ashore and local legends inspired the Genoese. Yet no one would finance his daring expedition to the west. The king of Portugal turned him down because of the failure of an earlier expedition west that the sovereign had authorized. Experience, not superstition, worked against Columbus. Queen Isabel of Castile, engaged in the last act of the eight hundred year-long reconquest of Iberia from the Moors, turned him down despite Columbus's conviction and charm. Christopher and his brother sought out the kings of France and England, also to no avail.

Queen Isabel had second thoughts and decided to call together a group of experts to study Columbus's project. Partly because of his secrecy and fear of "industrial espionage" he revealed little of his plan. The experts, after four years of deliberation (no rush to judgment) turned him down, but not because the queen had surrounded herself with ignorant, superstitious sycophants who feared falling off the edge of the flat earth.

Rather, her learned councilors, well aware of the world's spherical shape, as were virtually all European intellectuals at the time, concluded that Columbus had miscalculated the circumference of the earth. As Columbus would later write to the Queen, he based his plans not on maps and astronomy, but on the Bible. Columbus was less a modern man than the advisers who denied his plan. He was a deeply religious medieval thinker who based his unshakable conviction of the path west on biblical prophecy. Taking cues from scripture and converting with the smaller Italian mile, rather than the more appropriate Arab unit, he calculated a world one-third smaller than it actually was. He had assumed that 2,400 miles to the west lay the Indies. We know today that this is actually closer to Indiana. Isabel's advisers realized that the great distance to the Indies precluded an ocean expedition because of the difficulty of provisioning such a long trip.

The king of Portugal recalled Columbus for a second discussion of his plans. This again failed because as the Genoese arrived at court, Bartholomeu Dias arrived in Lisbon announcing he had reached Africa's Cape of Good Hope. The path to the Indies was open---to the east. There was no need for Columbus's adventure.

Finally, Columbus's faith was confirmed when Queen Isabel again asked him to return to court. Enthused by her just completed victory over Muslim Granada and swayed by her husband, King Ferdinand, who argued that the amount Columbus required was relatively small, Isabel consented to financing most of the expedition despite her doubts of its success.

As we know, Columbus guided his three small ships across the Atlantic. Thirty-three days after leaving the Canary Islands, he reached the Bahamas. Not only did he really not know where he was going because of his confused idea of the size of the earth, but he did not recognize where he was when he got there. So anxious was he to enrich himself with the trade of the Indies, that he remained convinced that Cuba was Cipango (Japan). All of the inhabitants of these "new lands" suffered from his mistakes as they came to be called "Indians." In a little over a decade he would lead four expeditions to the Indies, would sail off the coast of Venezuela and Honduras, spend a long time on Jamaica, Hispaniola, and Cuba, and yet he persisted to the end in believing that he had indeed found the East Indies. This man who had redrawn the maps of the world still had a medieval belief that the world was pear-shaped and that the turbulent waters of the Orinoco River were one of the four rivers at the top, near the earthly paradise. This man whose exploits would revolutionize the world economy was driven by a desire for gold to finance the reconquest of Jerusalem. Christopher Columbus bumped into the modern world by accident and didn't recognize it when he found it. Sometimes it is better to be lucky than smart.

### **2.3 Seats of Government and their Stomachs: An Eighteenth-Century Tour**

People today who complain about "big government" don't care where its employees live: an IRS agent in Topeka is still part of "Washington." But in pre-railroad days, what often set people off was the size of the capital cities themselves. Why did the growth of London or Paris cause so many riots, and the growth of Beijing and Delhi so many fewer?

The size of most cities was limited by the need for food and timber. Few farm regions had over 20 percent of their crop to sell once the farmers themselves had eaten. And it was hard to draw on a very large hinterland because land transport quite literally ate into that surplus: a team of horses that traveled over twenty miles would eat enough of the grain they hauled

to make the trip (usually) unprofitable. So if a city got too big, food prices soared, wages followed, its products became uncompetitive, and growth stopped.

But capitals were different. There was no real competitor for the services they provided, and they included residents who could raise their incomes by edict to keep up with higher prices. As European empires, armies, and bureaucracies grew between 1500 and 1800, so did capitals, causing horrible problems for their neighbors. London, surrounded by unusually productive and market-oriented farms, and with excellent water transport, was not that big a problem: but even there, various new laws were needed to direct enough grain to the city.

Paris, less favored by circumstance, was a disaster. Nearby farmers typically consumed over 80 percent of what they grew themselves, marketing only what was left over. So if the harvest fell short by, say, 10 percent—a common event—it hit the grain market the way a 50 percent shortfall might today. Traders would scour ever-larger areas buying grain for the capital, where people could afford high prices. Rural grain-buyers—village artisans, wage laborers, and fanners of grapes, flax, and other non-grains—went hungry. Thanks to the extra waves Paris made, they could drown in what were actually pretty calm seas; their only defense was to riot, trying to stop the grain wagons from leaving. And even Paris was not Europe's worst case: that was Madrid, swollen with American silver, but located in a very dry region that mostly raised sheep.

The cost of suppressing these rural grain riots—and of keeping prices down for the poor in the capital—was a brake on the growth of European capitals. But if few European cities could exceed 200,000 people, and none could exceed 500,000, how did other societies feed cities of over a million?

A few of these capitals were perfectly positioned near bountiful harvests, excellent water transport, or both. Thus Cairo lived off the Nile Delta, and off seaborne imports when needed; Istanbul sat next to major shipping routes as well as a fertile plain. And Edo (now Tokyo)—probably the eighteenth century's biggest city—not only ruled a country where almost everyone lived within striking distance of coastal shipping: it was also lucky that its subjects grew rice, which yields far larger surpluses per acre than wheat, and stores and ships better. But even so, feeding Edo took massive road-building, a huge merchant network, and—at time—plenty of force to collect rice tribute from unhappy farmers.

Perhaps the greatest wonders were the Qing and Mughal capitals: Beijing and Delhi. Though both empires ruled plenty of rice-growing areas, their capitals were hundreds of miles away, on dry plains that yielded little surplus at all. And both were among the largest cities of the pre-industrial world. So why weren't they five times as catastrophic as Madrid? The solution in each case was an ingenious and unique transport system, enabling the capitals to tap remote rice surpluses.

In Beijing's case, rice was carried north by the world's most extensive system of canals, including the Grand Canal, a 1,400-mile-long engineering marvel that borrowed water from, and linked Beijing to several of China's major rivers. It had been built bit by bit beginning back in the 600s, and was finished in 1420; by the 1700s, it carried enough rice to feed at least 1 million people a year. Moreover, the Qing oversaw a huge national network of both state-run and private charitable granaries: they stockpiled grain in good years and sold at a below-market price in bad ones. The system was expensive, but it worked: Chinese grain prices even in the worst eighteenth century harvest failures almost never rose more than 100 percent, while French food prices would sometimes soar 300 or 400 percent.

The Mughals neither dug canals nor built many granaries—though they did encourage temples and rich families near the capital to invest heavily in well-digging, making the plain a little less dry and a little more productive. But the real solution was land transport, provided by the *banjara* caste.

The *banjara* were hereditary, migratory livestock herders; for centuries they had gone from village to village, trading some of their newborn oxen to farmers needing plow animals, and some of the oldest animals for hides. Not surprisingly, they soon got involved in transport, too. And since their caravans often had over 10,000 bullocks (they had perhaps 9 million in all), each able to cart about 275 pounds, they were a natural for big bulky loads. By Mughal times, they were regularly employed to haul grain to the capital, with more lucrative opportunities to carry salt, cloth, and even diamonds acting as a sweetener.

Moreover, *banjara* shipping was cheap, because it took advantage of what you found on a semi-arid plain: plenty of unfarmed and unfenced grassland. Unlike European teamsters, who usually had to pay to feed their wagon-teams, the *banjara* herds ate for free along the roadside. This made the caravans slow, and—to European visitors—strange-looking; but the system worked. And had those visitors been blacksmiths from outside Paris or Madrid, they might have seen the beauty of it all.

## 2.4 Pioneers of Dusty Rooms: Warehouses, Trans-Atlantic Trade, and the opening of the North American Frontier

The story of westward expansion is probably America's most popular epic, and the figures involved are, for good or bad, the culture's most enduring icons: native Americans, fur traders, loggers, farmers, soldiers ... and warehouse managers. Warehouse managers? Yup. During at least the first two centuries of European settlement the pace of Westward expansion was in large part dependent on the settlers' ability to market cash crops back in Europe; and the ability to remain competitive in European markets while shipping goods from further and further inland depended on being able to cut the shipping costs incurred down the line, after one's crop reached the Atlantic Coast. Between 1700 and the outbreak of the American Revolution, those costs fell by half, without any technological change in shipping; and a big part of the explanation lay in warehouses along the East Coast.

We often imagine the farmers who cleared the western parts of, say, Pennsylvania or the Carolinas as self-sufficient

folk who mostly grew food for their own use; but two simple facts made most of them dependent on sales to Europe. First, most of them started out in debt, either for their passage to the New World or their land. Second, complete self-sufficiency was simply too inefficient, and the colonial market was too small and spread out to support much in the way of industry; so nails, cloth, and other necessities--not to mention status symbols like mirrors, clocks, or tea--were generally imported. In return, Pennsylvanians and New Yorkers sent grain; Carolinians rice, naval stores, and later cotton; and Virginians and Marylanders mostly tobacco. The markets for most of these goods were volatile and competitive, so trying to produce them in more remote locations was a chancy business, unless costs could be cut elsewhere.

Basically, two sets of changes brought down shipping costs, even before the advent of either steam or improved sailing ships, and so made this expansion possible. The first came from the British side--the largely successful suppression of piracy in the eighteenth century. This not only cut insurance costs, but made it possible to send freight across the Atlantic in unarmed (or only lightly armed) ships. Such ships were cheaper to build and much cheaper to operate, because they could function with a smaller crew. But this was only part of the story, and one that benefited the Caribbean colonies and Brazil--in some cases competitors of the mainland colonies--at least as much as the North Americans.

The other part of the fall in costs came from reducing ships' time in port. Sailors had to be paid for shore time in any port other than their home (they could hardly have survived otherwise); this made time spent acquiring a cargo expensive. Traditionally, that time could be quite long, because buyers had to visit each plantation, examine its crop, and dicker over the price. In 1700, an average ship going between England and the Chesapeake tobacco country spent over 100 days per voyage going around the mouth of the river collecting cargo; port times elsewhere were similar, and similarly expensive. (In the Indian Ocean and South China Sea, where the impossibility of returning home until the monsoon winds shifted made port times even longer, a radically different solution was found. Instead of hiring sailors for wages, shipowners recruited merchants as crew members, exchanging onboard services for a right to use a certain amount of cargo space; these merchant-sailors supported themselves by trading on their own account while in port, relieving the shipowner of any need to support them.)

The solution, in retrospect, seems remarkably simple: contract with agents on the spot, who have bought up the desired crop in advance, and have it warehoused and ready to load when the ships from Europe arrive. Yet at the time this was quite an innovative solution: merchants were not used to providing the scale of credit that such arrangements often required, or delegating that much responsibility for choosing what goods to acquire. Part of what made this possible in the New World; however, was precisely the narrow range of goods sought in any particular American location. A ship arriving in, say, Alexandria, Calcutta, or Canton faced complicated choices among commodities--was pepper a better buy this season than silk, or tea a better buy than either? Or given the need to stop off in Surat on the way back, might it be better to buy cotton, and figure on swapping it there for something to take back to Europe? But shippers arriving in Baltimore were buying tobacco and little else; in Charleston, rice, cotton, or maybe naval stores; in Kingston almost certainly sugar. Moreover, they were taking these goods straight back to Europe: unlike in Old World commerce, on the trans-Atlantic route there were no stopovers where you might exchange part of this cargo for a different one. So decisions were simpler and easier to delegate, and those who saw that could greatly cut their port time.

Interestingly, it took the well-established English trading companies quite a while to figure this out: independent Scottish traders were the first to see the potential of financing Americans who would build and manage warehouses. But it gradually became clear how much time and money could be saved--by 1770, port time in the Chesapeake was down to fifty days, much of which was needed for repairs anyway--and other shippers followed suit. As trans-Atlantic shipping costs fell, the volume of American goods demanded in Europe rose. But English ships exporting to America were partly empty, since manufactured exports, many of them luxury goods, took up much less space than bulky New World farm and forest products. Thus, they always had room for a new batch of European immigrants, immigrants who could now more easily move into the less crowded interior of the colonies, in part thanks to the quiet pioneering on the wharves and in the warehouses of the coast.

## **2.5 People Patterns: Was the Real America Sichuan?**

After Columbus came other Europeans. Since so many Europeans, were, like people everywhere, short on land, resources, and opportunities, the opening of two empty continents was an enormous draw. By 1800--when the United States had broken away from England and much of Latin America was about to break away from Spain--an unparalleled number of people had joined the adventure, creating new societies while greatly relieving population pressure in the Old World.

Oops! Scratch all that; it may be in your high school textbook, but it's mostly wrong. In fact, the flow of Europeans to the New World before 1800 did not stand out, at least numerically. Somewhere between 1 million and 2 million Europeans came to the New World between 1500 and 1800; by contrast, over 8 million Africans came via the slave trade. (The predominantly European population of North America resulted from very high birth rates--what Ben Franklin called "the American multiplication table" while wretched conditions and an absence of females kept the African population down.) Indeed, slaves were needed in some parts of the New World precisely because not enough Europeans were willing to come for the sort of jobs that were being offered once the privileged and powerful had grabbed much of the best land and turned it into plantations. Much better examples of people moving vast distances to seek free land--and by far the largest voluntary migrations of the pre-steamship era--were occurring among the Chinese, who are often portrayed as people too tied to the soil of their ancestors to move.

Consider the numbers, or what we know of them. About 4 million Chinese moved to the Southwest frontier alone

between 1500 and 1800, clearing previously uncultivated lands and pushing out the indigenous tribal peoples. Over 1 million people relocated (some voluntarily, some not) to Manchuria just in the mid-1600s; and though further migration to the area was banned in the 1700s, the amount of land found to be cultivated by Chinese in a 1779 survey suggests an influx of at least 1 million more. Other people crossed the straits to Taiwan, or headed for other frontier spots. One of the few things we know about migration to Sichuan--not a new frontier, but an area that again had open land after war and plague ravaged it in the mid-1600s--is that for about 200 years it was the most popular destination of all.

Why so many? It wasn't that Chinese were any poorer or more desperate than their European contemporaries; on average they may even have been a little more fortunate than pre-industrial Westerners. And the lands they sought out were certainly no richer; nor were the hardships necessarily less than for those crossing the Atlantic.

In some cases, government policy provides an answer. Some of the migrants--perhaps 1 million of those going to the Southwest, for instance--were soldiers and their families, sent by the state to help shore up China's hold on contested regions. Elsewhere, the frontier was one of *resettlement* after depopulation, and the state often aided voluntary migrants: it provided free seed and breeding stock (for draft animals), helped with irrigation and flood control projects. Most basically, it guaranteed title to abandoned or newly cleared land, and frequently didn't put such land on the tax rolls.

But on truly new frontiers, the state was often less accommodating, and even discouraging. Migration to Taiwan and Manchuria were banned for long periods, as the government sought to protect the indigenous peoples of these areas--or at least avoid the costs of putting down rebellions. In Manchuria, the Qing Dynasty (1644-1912) was protecting its own ancestral homeland, a place that nurtured the horsemanship and martial values that had made the Qing conquest of China. Moreover, the forests were the source of ginseng root--a lucrative royal trade monopoly. The soybeans and wheat the settlers would grow instead might have filled stomachs, but not the imperial treasury. (In the New World, by contrast, it was usually the colonists' crops---sugar, tobacco, coffee, and so forth--that entered foreign trade on a large scale, generating government revenues far beyond what furs and skins could yield.)

Taiwan also had forest exports---the indigenous people sold deerskins and other forest products to the Dutch traders who arrived after 1600--and the Qing feared that too many farmers clearing the forests would create an explosive anti-Chinese alliance. So even once it became clear that the government couldn't stop Chinese from settling Taiwan, the state worked hard to make sure the natives didn't lose everything. They insisted, for instance, that Chinese farmers could not own the land they cleared; while they might gain permanent surface rights, and be allowed to sell, rent, or pass on those rights, those who had been there before still owned the subsoil, and thus could collect rent that might partly offset losses from the shrinking forest. And when convinced that settlers were pushing too hard and causing instability, the government was willing to arm and ally with native peoples to restore the status quo--hardly a likely scenario in the New World.

So why did so many more Chinese than Europeans pull up stakes? In part, no doubt, because migration offered them farms of their own almost immediately. In many European colonies, on the other hand, elites were allowed to gobble up all the land, so ordinary folk could only hope to gain land after surviving a period of indentured servitude. And in part because, contrary to most stereotypes, they started out less encumbered than most Europeans. Until the French Revolution, many Europeans were legally bound to a piece of land and/or a feudal master. Even those who had the right to leave often could not have sold their interest in the land to finance their passage. By contrast, the overwhelming majority of Chinese peasants were independent smallholders, or tenants whose relations with their landlords were based on contract, not legal subordination. In the economic sphere, they were simply freer than their European contemporaries--and that meant, among other things, freer to move. It was only once European peasants and artisans "caught up" in this regard--and once many of them lost their livelihood in the tumult of the nineteenth century--that they became equally footloose and sought out new lands on a scale that justified the immigrant legend that we have now read back into the first three centuries of New World colonization.

## 2.6 Winning Raffles

In the fifteen years he served the British East India Company in Asia, Stamford Raffles conquered Java, wrote three books, gathered much of the original collection of the London Zoo, and above all, founded Singapore. The Company denied him a pension, and dunned his widow for expenses he had claimed while creating Southeast Asia's greatest trading center.

Few people did more to promote British commerce in Asia than Stamford Raffles; and perhaps nobody did more to define the values of the empire in its nineteenth-century "liberal" phase. Born in 1781--just three months before the British defeat at Yorktown that sealed the thirteen colonies' independence and signaled the limits of an empire of white settler colonies--Raffles started work at age fourteen for the flag-bearer of a different kind of British Empire, the East India Co., which traded with and sometimes ruled over long-established societies in South Asia. (Raffles began work so young because his father died suddenly and in debt. This side of his story also made him a fitting emblem of the nineteenth-century British Empire; though such rags-to-riches stories were actually rare, the idea that any enterprising young man could make his way by helping British commerce expand to reach new fields overseas was a myth dear to English hearts.)

For ten years, Raffles labored anonymously in the firm's London offices; when given a chance to go to Penang, on the Malay Peninsula, in 1805, he grabbed it. Always extremely ambitious (in several of his letters, he compares himself to Napoleon), Raffles made himself nearly indispensable by teaching himself Malay on the voyage to Penang; almost nobody else in the company's employ spoke the language. Though he was fascinated by every aspect of the area (on a leave back to London, he took with him over thirty tons of sketches, plants, animals, and local artifacts), Raffles had his eye from the

beginning on bigger things, and on points further east. The Napoleonic Wars gave him his chance, for with Holland, the colonial master of present-day Indonesia, under Bonaparte's rule, its loosely held possessions were up for grabs. And in fact, Raffles thought even bigger than that: his very first memo about Southeast Asian affairs stressed the value that a new British settlement in the Netherlands Indies would have as a base for expanding British trade with China. In 1811, he sailed as the number two civilian (and chief strategist) of a force of 9,500 that took Java from the Dutch; he then served as its governor for the next four and a half years.

Raffles was also fired by a vision of a simultaneously liberal and authoritarian empire, with free trade as its cornerstone; he was convinced this would be good for the natives, as well as the British. At least on paper, he abolished the Dutch system in which villages were forced to do a quota of unpaid labor cultivating export crops in order to keep access to the land on which they grew rice for themselves. Auctioning the land to the highest bidder and assessing taxes on it, he reasoned, would be enough to assure a steady stream of sugar, coffee, and other exports, while giving peasants a chance to participate in the market. Slavery was to be abolished; tax money was to be used to build roads and make other improvements favorable to trade. But quite aside from the chaos that resulted from trying to introduce capitalism overnight, Raffles had another problem in Java: neither his employers nor the British foreign ministry favored this application of English principles. Whitehall Street was eager to have Holland as an ally in post-Napoleonic Europe, and so planned to return their empire to them, and for the East India Company that made Raffles's road-building and other reforms an expensive investment from which they would never see much profit. Within a year of the war's end, Raffles was sent to the backwater post of Bencoolen (also in Malaya) and given a decidedly mixed personnel review; probably only the high-ranking friends (including the crown prince) that he had made on a furlough back in London--where he was celebrated as a war hero, explorer, naturalist, and anthropologist--guaranteed him even that much.

As frustrating to Raffles as the detour in his own career was the opportunity he was sure Britain was missing. Not only had they restored the East Indies to the Dutch, they tolerated Holland's re-imposition of its monopoly on almost all trade with this vast archipelago. (As London saw it, such tolerance was necessary, since spoils from Indonesia were essential to rebuilding and stabilizing a Holland ravaged during the war.) To enforce that monopoly, the Dutch continually harassed foreign ships in their waters, and often refused to serve those that entered their ports. And since Indonesia stood along the only possible sea routes linking the Indian Ocean with the Pacific, this placed the Dutch firmly in the way of non-Dutch merchants dreaming of great profits to be made in China and Japan. For Raffles's bosses at the East India Co., this was only an irritation, but for smaller "country" traders, it was a disaster. Their smaller ships were more often in need of taking on supplies in between India and China; and they had a special financial need as well. Being less well capitalized than the EIC, they found it a great hardship to wait the several months of an ocean voyage to China before seeing any return on the working capital they had invested in cargo, crew, and stores; they needed to turn over their stock sooner, and above all had to avoid failing to return before the monsoon shifted, becalming ships and forcing several months' more wait before a trip's profits returned home. For centuries before the Europeans came, this problem had been solved by having ships coming from China meet those coming from India and the Middle East somewhere in the straits of Malacca; a variety of towns there had had their decades (or centuries) of glory before greedy pirates or monarchs killed them off by charging too much for protection. Now it was the Dutch who monopolized this perfect spot for an entrepot: Raffles, who may have known the area's commercial history better than any European, was determined to plant an outpost for free trade there.

By swamping his supervisor--the governor general of India, based in Calcutta--with memos about how the Dutch were tightening a noose around the Calcutta-Canton trade, one of the EIC's biggest moneymakers (largely thanks to opium sales), Raffles eventually obtained vaguely worded instructions, which could conceivably be said to include permission for armed intervention. That was all he wanted: taking advantage of a succession dispute between two brothers of a deceased sultan, Raffles arrived at the future site of Singapore on January 29, 1819, recognized the brother who had lost out, persuaded him (and his uncle, the real power in the family) to lease Singapore for 8,000 silver dollars per year, and sent in a token force of British soldiers to deter any Dutch action against the new town. The whole process took a week.

The controversy lasted longer. The Dutch protested vehemently, but ultimately did nothing; meanwhile, the EIC and the British foreign ministry, afraid of new commitments and of giving offense, delayed recognizing the settlement. But as Raffles had guessed, time was on his side. Independent merchants in both Calcutta and London saw things as he did, and wrote volumes of letters, editorials, and leaflets demanding support for the new colony. Perhaps more important, these merchants voted with feet, their boats, and their capital. Within two and a half years, the little fishing village had over 10,000 inhabitants (mostly Chinese merchants); 2,839 vessels (all but 383 of them Asian owned) had cleared port. And the next year's figures exceeded those for the first two and a half combined. From Singapore, Britain could join in and piggyback on an intra-Asian trade much larger than the direct England-Asia commerce for which the EIC had a licensed monopoly; they could also bend that trade to their own purposes, pushing old and new exports from India to the Far East (spices, indigo, and opium) in place of those from Indonesia. In March 1824, both Britain and Holland ratified the inevitable, recognizing the bustling free trade port of Singapore as a British possession.

The new city's success not only heralded major changes for Southeast Asia, but for Britain--and that, perhaps, helps explain why Raffles's superiors were so grudging about giving him credit. When the EIC had been created 200 years earlier, part of the thinking had been that a licensed monopoly, with strong ties to the government, would make for a stronger British presence in Asia; equally important, such an entity would be easier to control, so that it would not pursue policies that conflicted with London's. Even after the company became deeply involved in military actions on the Indian mainland

(becoming de facto rulers of Bengal after 1755), this logic persisted; Parliament's response had been to tighten oversight of the company, not to abandon it or take away its monopoly on bringing Indian goods to England.

Moreover, the way in which the EIC ruled its new possessions, at least at first, was somewhat like the way in Dutch Java that had so infuriated Raffles. Essentially, the Company acted as the stem leader of a coalition of princes, big merchants, and landlords (which was how it had come to power). Plenty of consultation with local elites took place, and many early EIC governors styled themselves as merchant princes (see reading 1.12, "The Chinese Tribute System," in Chapter 1). At the same time, the company-like many indigenous elites--obtained many of its trade goods through direct use of force against local, non-elite populations, rather than free contracting.

Raffles operated differently. There was little in the way of an indigenous elite to consult with in Singapore, and even if there had been, he would not have been interested. Convinced that he and other Europeans knew best, he created a government system with almost all real power in the hands of the colonial governor, and no need to consult anyone. On the other hand, since Singapore was an entrepot rather than a place where many goods were produced, there was no need for the kind of coercive labor control measures widely used in both Java and India. That formula of free markets and undemocratic government has proved a lasting legacy.

In pushing in this direction, though, Raffles represented more than just himself. Increasingly, it was becoming clear that the real profits for Europeans in Asia would come from pursuing intra-Asian trade; and the Europeans seizing these opportunities were more often private parties than the chartered companies, who remained oriented toward the home markets in which they had legally protected monopolies. These "country traders"--some English, many more Indian or Chinese--provided indispensable economic dynamism for Britain's new empire, but were not so easy to control. Their power to upset London's Eurocentric calculations was vividly demonstrated in their pressure on the government to keep Singapore no matter what the Dutch said or did; the demands of many that Britain force open the ports of China and Japan--where Whitehall and the EIC preferred to move more slowly--was an omen for the future. (Another omen for the future was that the government of Singapore, having committed itself to a no-tariff policy and having little land to tax, found itself almost entirely dependent for revenue on one exception to its free trade ethos: an opium monopoly.)

This new "free trade" empire brought unprecedented profits, but also unprecedented change. As the man who unleashed the whirlwind, Raffles caused discomfort among the supposed leaders of this transformation, many of whom actually preferred the supposedly safer profits of a world that moved slowly enough for London to call the shots.

## **2.7 Scandalous Panama: Or, How the Plan to Get Rich with the Big Ditch Had a Hitch**

Teddy Roosevelt, in his characteristically pompous style, bragged that he built the Panama Canal. Of course we know that in reality, the canal that would mean so much to world trade was built by tens of thousands of Panamanians and West Indians, thousands of whom gave their lives in the effort. What is less known is the French effort that preceded Teddy's feat? Before the grand canal connected two oceans, it ruined the reputation of one of France's greatest entrepreneurs and engineering heroes, tarnished the name of another great engineer, and brought down some of France's most powerful politicians.

Ferdinand de Lesseps was a Frenchman with vision and tenacity. Engineering was not his specialty. But vision proved enough in the Suez where his company cut this magnificent canal through a hundred miles of desert. He was aided by the French imperialist program, which at the time had Egypt in tow and wanted a direct link to its Indochinese colonies. The Suez Canal was fabulously profitable. By the late 1870s shares had appreciated 400 percent and 17 percent dividends came rolling in yearly. But de Lesseps was not satisfied.

At the age of seventy-four when he began the Panama project, he was still vigorous--only ten years earlier he had married an eighteen-year-old. He decided not to rest on his laurels but rather to build another canal through the two remaining continents that blocked an around-the-world equatorial sea voyage. There was much debate whether Panama or Nicaragua was the better site. The international congress convened in Paris in 1879 to consider the question was guided by de Lesseps to a Panamanian solution because he argued that a sea-level canal could be built, avoiding costly locks.

De Lesseps's success with the Suez Canal guaranteed his ability to assemble a rich syndicate and sell to an avid public. Investors stampeded to buy the shares publicly offered at the end of 1880. By the end of the decade the French public had subscribed more than a billion francs of stock and bonds. An unrealistic appreciation of the engineering challenge he faced allowed de Lesseps to offer attractively low estimates of the canal's construction costs while predicting high revenues. He dismissed critics who worried about the problem of disease in the canal's tropical rain forest site: "that beautiful climate has been condemned by those who know nothing of it."

The French engineer could dupe the French investing public, but he could not fool nature. A sea-level canal proved unworkable. Locks would have to be built on both ends. Enormous mountains of dirt had to be moved, more than three times as much as in Suez. And tropical disease took the lives of thousands. (It is striking how the standard accounts of the building of the canal mention politicians, investors, and engineers by name, but forget the thousands of men who actually wielded the picks and shovels, as if signing a treaty, buying a stock, or drafting a blueprint were sufficient to make the earth part for the canal.)

When nature proved recalcitrant, de Lesseps turned to the sphere he knew much better than engineering: promotion. Weighed down by debt with bonds discounted 54 percent by March of 1888 and shipping revenue still nowhere in sight, de Lesseps turned to influential politicians, celebrities such as Alexandre Gustav Eiffel (who was just finishing his famous tower), and news agencies to promote the canal, provide a government guarantee, and tap the public's purse further. New

York banking houses of Drexel and Morgan and Seligmann received great commissions at the same time to float bonds in New York and thereby win U.S. neutrality on Panama; this was important because the U.S. government was wary of French control of an isthmian canal. Indeed, the 1850 Clayton--Bulwer Treaty had agreed that any isthmian canal would be a joint U.S.-British undertaking.

The boosting in Paris and New York could not salvage the company, however. Nature would simply not conform to de Lesseps's vision. Once the company went bankrupt in 1889, newspapers began revealing the tactics de Lesseps had employed to seduce French investors. The greatest financial scandal of the nineteenth century broke. De Lesseps, his son, and Eiffel were sentenced to jail (though the sentence was later overruled) and the French Radical Party was badly tainted. The president of the Chamber of Deputies was implicated and 104 other deputies were accused of being on the Panama payroll. A young Georges Clemenceau was badly damaged by the affair. Deputy Delahaye summarized the extent of the fraud: "There are two categories of Deputies--those who took money; those who did not." De Lesseps's name was removed from a prominent park in Rouen and the word "Panama" became associated with swindle.

By 1889 the Panama Canal was considered dead. The United States government authorized a private Nicaraguan canal in which such prominent entrepreneurs as Andrew Carnegie and H.O. Armour invested. Indeed, the Republican Party proposed a federal profit guarantee for the canal company as a prominent plank in their 1892 platform and building began at Greytown, Nicaragua.

Yet, as we know, the isthmian canal goes through Panama, not Nicaragua. A new French Panama Canal company took over de Lesseps's concession in 1894. Its main goal was not to build a canal but to prevent one. Propaganda and strategic payments in Washington combined with the Democrats' suspicion of federal aid to private concerns and the depression of 1893 aborted the Nicaraguan canal. When a U.S. cruiser and marines stimulated the independence of Panama from Colombia in 1903, conditions became ripe for resuming the Panama Canal. The U.S. government purchased the de Lesseps concession for \$40 million and struck a deal with the newly minted Panamanian government. It may seem fitting, then, that when Teddy Roosevelt's representative signed the final treaty with Panama granting the United States sovereign rights over the canal, the Panamanian side was represented not by a Panamanian, but by Phillipe Bunau-Varilla, a French agent of the French canal company.

## **2.8 E Unum Pluribus**

When the Suez Canal opened in 1869, it fulfilled a centuries-old dream: a short-cut between Europe and Asia. In just three months, shipping costs between London and Bombay fell 30 percent; over the course of a decade the canal, plus improved steamships, cut the trip from Marseilles to Shanghai from 110 to 37 days. Goods, people, and ideas moved on an unprecedented scale.

Nowhere were the changes more revolutionary than in the Dutch East Indies--the "Spice Islands" of Columbus's day, and the Indonesia of ours. Many Europeans confidently predicted that as the colony became more closely tied to Europe, Western ways would triumph, too. And as a common culture spread through the increasingly interdependent archipelago, their fractious mix of Malays, Indians, Chinese, and others would forge a common identity and society--under European leadership, of course. But instead, the canal had the opposite effect. By the early twentieth century Indonesia was physically united, but bitterly divided along class, ethnic, and religious lines, loosening Dutch control while creating inter-Asian hostilities that still linger today.

The map changed swiftly. The telegraph reached Batavia (today's Jakarta) a year after Suez opened. Two years later (1872) the Dutch opened their colony to investments from other Europeans: tobacco, coffee, cocoa, and rubber plantations boomed in the previously sparsely populated outer islands. (They would soon be followed by tin mines and oil wells.) To secure the most valuable outer island--Sumatra--the Dutch launched the Aceh War in 1873, a bloody thirty-year campaign that finally filled out the borders Indonesia would have at independence. And within those borders a new type of enterprise took shape, more like modern agribusiness than the older colonial system.

Before 1870, most of the Indies' exports came from Java and were produced by peasants. Wishing to rule Java cheaply, the Dutch had supported much of the old way of life. Peasants were kept in their villages, growing their own food, and ruled by their traditional princes and village heads; the sugar and other exports they produced were cultivated by additional forced labor, allocated through a tribute system in which each prince was assigned a quota for "his" lands and peasants. But the growth of international trade now created new possibilities. The French and British drained the Mekong and Irrawaddy deltas; soon rice from Southern Vietnam and Lower Burma was being eaten from Coventry to Canton. Once Indies laborers could eat imported rice, Europeans turned the outer islands into gigantic plantations worked by wage laborers and producing only export crops. To keep labor cheap, huge numbers of "coolies" were imported from crowded China, India, and Java. Better off Chinese moved in to handle rice retailing, pawnbroking, and opium-dealing; and atop this society of immigrants sat European planters. The native princes and headmen so carefully propped up in Java were cast aside here in favor of more "modern" administrators: foremen, debt collectors, courts, police, and private guards. And even in Java itself, rising rice imports permitted specialization in exports, and brought more peasants directly into the cash economy.

But what the canal pulled together, it also tore apart, partly by changing the way Europeans lived and ruled. As it became easier to get goods (even ice!) and news from home, a different kind of European came to the Indies. Called

*trekkers* (sojourners), as distinct from the older *blijvers* (stayers), they saw the Indies as just one stop on a career path that would end up back in Europe. While there, they intended to live as they did at home. Since it was now possible to do just that, the new wave of Europeans brought European wives with them; the *blijvers* had married local women, who brought them into local elite society. The new Europeans avoided direct contact with the local population; most declined to learn Malay, which for centuries (starting well before the European arrival) had been the near universal second language and language of trade from Sumatra all the way to Luzon. Many unmarried *trekkers* were so scornful of "natives" that they preferred importing Japanese concubines (considered a "better class of Asians" in that frankly racist and Social Darwinist era). The "Eurasian" children of earlier mixed marriages, previously treated more or less as equals, now became a distinct caste, inferior to "pure" Europeans; many responded by trying to shed their "Indisch" ways and disavow their Asian roots.

Others also partook of the growing racial exclusiveness. The new wave of Chinese migrants also found that it was much easier to keep in touch with their homeland than it used to be; following the Europeans; they too created segregated neighborhoods, schools that stressed the culture of the home country, and racially exclusive trade and civic groups. Mindful of the scorn of the Europeans above them and the hostility of the Malay peoples below (not surprising given Chinese dominance of money-lending, tax-farming, and the drug trade), Chinese set up the first "nationalist" organizations in the Indies--but the nation they were concerned with was China. Early activities included fund-raising for political causes back home (including the 1911 revolution) and demanding that the colonial administration grant the Chinese "European" status, as they had the Japanese.

Soon the Indies' majority got into the act, too. But for Javanese, Achenese, Minangkabauans, and so many other groups to promote their shared interests against Europeans and Chinese, they needed a sense of shared identity, which they had not had before. And here, too, the canal lent a hand: since the main shipping routes between Europe and Asia now went through the Middle East rather than around South Africa, the colony's Moslem majority was also brought closer to a far-away cultural "heartland." Pilgrimages to Mecca, once exceedingly rare, now became common for the more religious, town-dwelling *santri* Moslems. This happened just as the "modernist Islam" movement was sweeping the Middle East. Modernists argued that the true Islam of the Koran was not incompatible with life in the modern world. The false impression that Islam clashed with the modern stemmed from mixing Islam with various local customs; these had to be purged in the interest of both religious truth and survival in a competitive world. Duly inspired, Indies *santri* set up schools that combined Koran study with Western sciences and social sciences; formed cooperatives of Moslem merchants to fight Chinese inroads into cigarette making and batik making; and campaigned for Moslem political rights. Having indeed opened the Indies to greater outside influence with their steamships and cables, the Europeans discovered that foreign ideas did not have to mean European ones. Sarekat Islam, founded by modernist Moslem merchants in 1911, became the training ground for most of the major agitators against European rule.

But a stronger "Islamic" identity was not the same as an Indonesian one. Not only were the Chinese left out and blamed for the Indies' ills (as they often still are), modernism intensified divisions between the more prosperous, religious, and educated *santri* and a larger, poorer group of rural *abangan* Moslems. The latter had mixed their Islam with any number of indigenous practices that the *santri* sought to eliminate--from a system of female family heads (once widespread but by this time limited to parts of Sumatra), to lax sexual practices, to mystical cults, "wasteful" feasts, and "superstitious" rites not sanctioned by the Koran. Since the *santri* were far more organized and educated than the *abangan*, it was their views that the Europeans usually recorded as being the "customary law"; but victory on paper produced neither real conformity nor Islamic unity. The *abangan* naturally resented *santri* meddling, and denied that having been to Mecca conferred any credit on *santri*; instead they often said (and say) that these trips were financed by an immoral and alien miserliness toward *abangan* tenants, debtors, and customers. As more worldly Indonesians formed mutually hostile groups tied to foreign places and ideas, the unorganized rural majority was left to face a strange and harsh world alone. More or less by default, many *abangan* later flocked to the radical wing of Sukarno's nationalism, and to one more imported idea--communism. When those large but poorly organized movements collided with the better organized *santri*, the army, and their foreign allies in 1965, perhaps 500,000 died--bloody testimony to a lasting disunity built in part by better communications.

## **2.9 Guaranteed Profits and Half-Fulfilled Hopes: Railroad-Building in British India**

The pre-eminent symbol of global transformation in the nineteenth century was the railroad. It cut land freight costs by as much as 95 percent and multiplied trade accordingly. It gave us standardized time, as it became necessary for people long distances apart to coordinate their movements to the minute. It standardized commodities: loading separate bags of wheat from Jones's farm and Smith's farm while a train waited under full steam was too slow and expensive, so we got the grain elevator. People understood that it required a certain mind-set to live in the railroad's world: one that emphasized reasoned calculation and overthrew old and "inexact" habits. In fact, late nineteenth-century Social Darwinists often used the perceived ability (or lack thereof) of various people to build, run, and take advantage of railways as standard gauge of the supposedly genetic "fitness" of various peoples for modern life.

So when India—which by 1910 had the fourth largest rail network in the world, with 85 percent of Asia's total track—did not promptly become a modern society, and the railroads themselves earned only modest profits, the search for what was wrong with the "natives" was on. But if Europeans had looked a bit more closely at how the railroads were built, and what they did, these mysteries might have vanished.

First, the huge extent of the rail network should not have raised expectations but lowered them. Many of the lines (including some very long ones out to the frontiers) were built to move troops, not goods; others, explicitly referred to as "famine lines," went to India's poorest areas, which frequently suffered harvest failure and also had poor transit-areas so poor that they were unlikely to provide much rail traffic except when others brought in food to save lives (and social stability). *Moreover*, Britain arranged private financing for these financially questionable lines by making the colonial regime give investors a guarantee: if any approved line failed to earn a 5 percent return on capital in any year, the Indian taxpayers would make up the difference. (Similar guarantees were made on Ottoman and some other railroads.) The result was a boon to London financiers—and to other British firms, who provided virtually all the track, rolling stock, skilled laborers, and even much of the coal. This led to even more building of lines with limited commercial potential—and a lot of gold-plated construction, as banker and boilermaker both benefited from raising the amount of capital on which a return was guaranteed. (Another result was that, unlike elsewhere, Indian railroad-building did not stimulate indigenous steel-making, engineering, or even coal-mining; nor did it train a group of skilled people who could then transfer knowledge to other industries.)

The giant rail net did, of course, make rates for overland freight fall sharply, but in some places (especially along the Ganges) traditional transport was still competitive. And while the volume of commerce did boom, neither its growth nor the displacement of traditional transport was as rapid as people expected. In 1882 (after thirty years of building) India's rails carried about 4 billion ton-km of freight; but in 1800, bullock caravans in North India alone had probably carried over 3 billion, and population had doubled in between. *Moreover*, even these falling shipping rates were still high relative to the population's spending power. In 1890, it still cost 22 percent of average per capita income to move 200 kilograms 1,500 kilometers; in the United States, the same transport cost 1 percent of the average person's income. And the rate structure made it much cheaper to ship on trunk lines leading to ports than on branch lines: good for India's booming exports, but bad for the development of domestic markets.

The part of these disappointing results most apparent to the English themselves was that most of the lines made little money. In 1900, 70 percent of India's track belonged to lines that needed subsidies from Indian taxpayers to reach their 5 percent return; most earned under 3.5 percent. In 1881, two lines accounted for 56 percent of all Indian railway earnings. The subsidies, though quite small relative to the transport costs saved by railroads, were bitterly resented in India. Meanwhile, Englishmen who had prophesied that "Railways are opening the eyes of the people ... they teach them that time is worth money ... introduce them to men of other ideas ... above all they induce in them habits of self-dependence ... " and that "30 miles an hour is fatal to paganism and superstition," now sneered that "all civilization disappeared beyond 100 yards on either side of the track."

But the railroads were making a difference—just not as fast as the English had assumed, not in every case, and not always quite the difference that had been expected. By the 1920s, shipping rates had declined 80 percent relative to income (the same rate at which they fell in the United States over those years), and the volume of traffic soared 1,000 percent between 1882 and 1947. More frontier areas developed cash crops, generating civilian uses for lines once built for largely military purposes. Rice- and wheat growing areas each began to eat more of the other grain, so the effects of a blight striking either crop were reduced. Perhaps most important, the so-called "famine lines" proved their worth repeatedly as suppliers of relief, making harvest failures in marginal areas far less catastrophic than they had been. And so, while being covered with a rail net did not transform India's economy, much less its culture, as some foreigners had expected it to do, it did give India a stronger safety net, giving railroads a powerful impact even where their own earnings suggested that they were not much in demand. Thus, in colonial India, railroads built to suit English generals, investors, and steel-makers may actually have done more to make certain parts of the old society *more* viable than they did to usher in a new one.

## **2.10 Trade Woes: The Yankees Strike Out**

Why did those crafty Yankee traders lose their knack in the nineteenth century? American merchantmen, setting out from Boston and New York, had been some of the most adventurous traders in the eighteenth and early nineteenth centuries. Sailing the triangle to Africa, thence to the West Indies or South America and back home or crossing the Atlantic, colonial and early American ships were omnipresent. They dominated the trans-Atlantic passenger and mail service until 1840, and the California clipper ships, inspired by gold-fevered passengers, were the world's fastest for a while. Robert Fulton was one of the first to develop commercial steamships. Yet despite a lead in shipping, a mercantile calling, and one of the world's fastest growing economies, Americans turned away from their earlier vocation in international trade. By the end of the century, Americans had a trade deficit. U.S. trade with Brazil, often one of the legs of the triangular trade, illustrates the sad story.

Americans were by far the greatest consumers of Brazilian coffee in the world. With such an overwhelming market position, one would have expected American traders, bankers, and shippers to dominate

trade. With so many ships laden with coffee and rubber unloading in New York and Baltimore, freight rates south should have been extremely low. With such a large proportion of Brazilian goods being purchased with dollars, American banks should have dominated exchange, discounting, and short-term credit. And with such commercial and transportation infrastructure, Yankees should have been able to export to the Brazil market.

But that didn't happen in the nineteenth century. Although taking most of Brazil's exports, Americans supplied only one-eighth of Brazilian imports. The British found themselves in the exactly opposite position. Tea drinkers, they purchased only one-fifth to one-third of Brazil's exports while supplying as much as one-half of all imports.

North Americans had ceded the Brazil market because of the more prosperous, booming home market. While building the world's largest railroad network, the merchant marine had been allowed to fall into obsolescence.

The problem began in the ports of North America. Freight rates from New York were higher than from London, even though New York was 25 percent closer to Rio than was London. North American steamships were 25 percent to 50 percent more expensive to operate than their European competitors because of higher ship construction costs in the United States, higher sailor wages, and greater coal consumption. Steamers were so expensive that even as late as the 1890s, four times as much cargo was carried in North American sail ships (which charged half the rate) as in its steamers. The ratio was almost the reverse for European ships clearing New York and Baltimore for Brazil.

Moreover, the much greater export trade of European countries to Brazil and Argentina (ships en route to or from Buenos Aires often put in at Rio) meant that many ships crossed the Atlantic southward at near full capacity, allowing a relatively low freight rate per unit. To take advantage of this trade, there were five regular British lines, three French, two Italian, two Austrian, and two German companies. Twenty steamships a month arrived in Rio from Europe, but only one from the United States. The ratio was far worse in Argentina where in 1885, 1,153 British steamers arrived, while no U.S. ships did. These ships competed for return cargos to Europe, driving down the fares on the northward leg. They also were willing to carry Brazilian exports to the United States. Consequently, there were five regular lines and many tramp steamers that made the Brazil to United States run but only one company, the United States and Brazil Mail Steamship Company, that regularly left the United States for Brazil. And it only sent two ships a month, one to Rio and one to the Northeast. As a result, not only did European exporters pay substantially less than North American traders for freight from their home countries to Brazil, but the freight tariff from New York to Rio was four times the rate of the return trip, encouraging the U. S. trade deficit with Brazil.

The considerable barriers to entry for U.S. shippers were heightened even more by a British-dominated shipping conference that set rates between Rio and New York. Shippers also used devices such as deferred rebates and contracts for future transport to lock in customers and marginalize new competitors.

To compete in this market, United States carriers would need government aid. The United States merchant marine had fallen into obsolescence after the Civil War. Despite the founding of the United States and Brazil Main Steamship Company (USBMSCo.) in 1883, complaints from consuls were constant and vituperative. Noting that only 8.2 percent of all U.S. imports and 15.5 percent of her exports were carried in North American bottoms, U.S. minister Thomas Thompson concluded that "to extend the commerce of the U.S. a merchant marine is absolutely necessary." The Brazilian government did award the USBMSCo. a \$105,000 a year subsidy in the late 1880s, but the U.S. Congress refused to provide more than a nominal sum of \$11,743. Meanwhile, the company's British competitor received the much more sumptuous total of £109,653 (\$531,817) from her majesty's exchequer. Moreover, the Brazilian subsidy was not to encourage international trade between Brazil and the United States. Rather, the North American shipping line was paid to carry coastal freight in Brazil, forcing its ships to make stops in Para, Recife, and Bahia.

Despite the hearty advocacy of President Harrison, strong political resistance from the South and the Midwest of the United States prevented the Merchant Marine Act of 1891 from providing adequate subsidies. Consequently, the United States and Brazil Mail Steamship Company, one of the few companies covered by the 1891 act, had to charge higher rates to cover its expenses and could not afford to expand its service to reduce unit costs and make itself more attractive to exporters. The company purchased two new North American ships for \$450,000 each in anticipation of large subsidies since the new law required the use of North American-built ships. When the funds were not forthcoming, the line that had survived for eight years *before* the Merchant Marine Act went bankrupt in mid-1893. In reflecting on this episode, a student of the merchant marine, John Hutchins, concluded:

Only strong, state-supported carriers or government-owned shipping could hope to achieve a firm position in many such liner trades. It seems, therefore, that the policy of comparative laissez-faire followed by the United States played into the hands of such established organizations and tended to freeze the existing situation.

As a result, the percentage of the Brazilian trade carried in North American ships did not increase. In 1889, 21.8 percent of the trade was carried in U.S. bottoms; in 1892, the figure was 22.8 percent. By 1897, U.S.

ships carried only 5 percent of the commerce between the two nations. Three years later, there was no regular shipping line between the United States and Brazil.

The absence of the U.S. merchant marine in the Brazil trade is startling when one recalls that the United States had been the world's largest market for Brazilian coffee since at least 1850, importing over half the crop while the British imported a small and declining amount. Coffee rates between Brazil and New York, according to the Alexander Commission in 1913, were "fixed at the highest possible level." Because coffee was the main cargo in the Brazil trade, it subsidized cheaper fares for exports to Brazil in the coffee freighters anxious for two-way cargo. Ironically, it was the British who took advantage of this by engaging in a triangular trade, coffee to New York, U.S. goods such as cotton, meat, and grains to London, and then British manufactures back to Brazil.

Americans did not cede the seven seas because they were nautically challenged. Clipper ships, steamers, even the first submarine were American inventions. And vast amounts of U.S. commerce traveled over water-on the internal rivers such as the Mississippi, the Ohio, the Missouri and the Hudson, the Great Lakes, and along the coastline. Moreover, the U.S. government was not at all reluctant to assist private carriers with subsidies. Government grants and loans fueled the greatest railroad expansion in history to that point in the nineteenth-century United States, and canals such as the Erie and the Chicago River tied together distant parts of the country.

Americans lost the Yankee trading knack in the nineteenth century because of their incredible success in expanding westward. Their continental system was all within one nation. Thus long-distance trade, as in China, was not even international trade. It was simply called regional commerce. Within the empire of the U.S. boundaries, American shippers and railroad men reigned supreme with a virtual monopoly. They were perfectly willing to allow other nationals to carry goods on the other seas.