# 10

# TRANSPLANTS

Few images in American history are as familiar as that of the nation's earliest patriots, costumed as Indians with blankets and blackened faces, dumping tea into Boston harbor on December 16, 1773, ostensibly demanding "No taxation without representation." This stirring slogan better reflected the revolutionaries' propaganda needs than the facts.

When Arthur M. Schlesinger Sr.—the father of the distinguished Harvard historian and aide to John F. Kennedy—addressed this topic in a 1917 essay, he entitled it "The Uprising Against the East India Company."[1] A historian writing today about the event might easily label it "the first American antiglobalization rally."

By the late eighteenth century, Britons everywhere were addicted to tea, and the colonists in the New World were no exception. Just before the American Revolution, Governor Thomas Hutchinson of Massachusetts, who was also a merchant, estimated that Americans consumed about 6.5 million pounds of tea each year: 2.5 pounds per capita. In actuality, the only levy on tea was an import duty of about 10 percent imposed by the Townshend Act a full six years before the Boston Tea Party. Colonists easily circumvented this modest tax by smuggling the dried leaves via Holland and France. Only about 5 percent of consumption was actually declared to the crown. Why, then, were Bostonians so riled up in 1773, six years after the fact? Simple: they dumped the tea into the harbor because they feared that the East India Company (EIC) was dumping it on them.

In the global downturn following the Seven Years' War—a devastating worldwide conflict between France and England lasting from 1756 to 1763—Britain found itself in fiscal difficulties and decided to repair its finances with funds from the colonies. The Stamp Act of 1765, which taxed legal documents, newspapers, pamphlets, and even playing cards in British North America, provoked widespread protest; it was repealed the next year. It was followed the year after by the more moderate Townshend Act, which also sparked cries of taxation without representation.

The war had also hit the EIC hard, and by the early 1770s it was in dire need of assistance from the government. The Townshend Act forbade the Company from selling its goods directly to the colonists. Instead, the EIC had to auction merchandise to middlemen, who then shipped the cargoes to American wholesalers, who finally sold to local shop owners. In May 1773, Parliament, at the request of the EIC, passed the Tea Act. It imposed no new taxes, but rather allowed the Company, for the first time, to import tea directly from Asia into America. The act cut the price of tea in half and was therefore a boon to colonial consumers.[2]

The middlemen cut out by the act, local smugglers and tea merchants, were not as happy with the new legislation. When news of its passage arrived in Boston in September 1773, these two groups took action against the "unfair foreign competition" from the EIC. Ignoring the inconvenient fact that the act would save their countrymen a substantial amount of money, merchants and smugglers couched their arguments in the familiar protectionist language of national interest. An editorialist writing under the pen name "A Consistent Patriot" pointed out that the new legislation would cost honest, hardworking American merchants their livelihood "in order to make room for an East India factor, probably from North-Britain, to thrive upon what are now the honest gains of *our own* merchants."[3] Others, relying on the ignorance and partisanship of their audience, raised the shibboleths of taxation without representation and the far-fetched threat of a British takeover of all American commerce. At least one town council, however, saw things more clearly and resolved that those objecting to the act did so "because the intended Method of Sale in this Country by the East India Company probably would hurt the private Interest of many Persons who deal largely in Tea."[4]

In November 1773, the East Indiamen *Dartmouth*, *Beaver*, and *Eleanor* entered Boston Harbor with the first loads of the EIC's tea. The conspirators, probably led by Samuel Adams, were well prepared and highly disciplined; they cleaned the decks when they were finished and took no tea for personal use or later sale.

By the time of the American Revolution, the familiar elements of globalization were in place. International corporations shipped their



products across the face of the planet and molded consumer preferences to the point that a hot drink brewed from dry leaves was considered a "necessary and common article of subsistence." Colonial special-interest groups deployed protectionist cant against the welfare of the many and against the big companies, improbably tarred as the agents of a foreign culture.

Before 1700, global commerce revolved around armed trading that sought to preserve monopolies in fabled commodities from exotic locations. Only once, in the seventeenth century, did the Dutch actually attain this ideal when they cornered the market in fine spices from the Moluccas and Sri Lanka.

After 1700, the pattern changed completely. New commodities—coffee, sugar, tea, and cotton—which were previously little known in the West and whose production could be easily transplanted across continents, came to dominate global commerce. No longer could huge profits be earned by offloading a few tons of spices, silk, or incense onto the wharves of Antwerp, London, Lisbon, Amsterdam, or Venice. Further, the companies would have to stimulate demand for the new mass-market goods.

Figure 10-1, which plots the percentage of imports into Amsterdam by the Dutch East India Company (VOC), clearly shows the primacy of these new products. (This plot actually understates their importance in Europe, since the EIC came to control the lion's share of textile and beverage imports, but carried very little of the spice commerce.) No one could hope to maintain a monopoly in items that were so easily grown and produced, and the nation most proficient at the new high-volume commerce, England, slowly realized that peaceful free trade served its interests best.

The story of the rise of the multinationals and mass-market commodities began with another beverage, coffee, which for more than half a millennium has been far more than just a drink. Nutmeg, cloves, cinnamon, and pepper once hypnotized the high and mighty, but eventually, they fell out of fashion. By contrast, the dark liquid concocted from the roasted beans of the *Coffea arabica* bush still commands the attention of corporate chairmen, prime ministers, and an ever-increasing number of the world's population. For the five centuries following its introduction into the Islamic

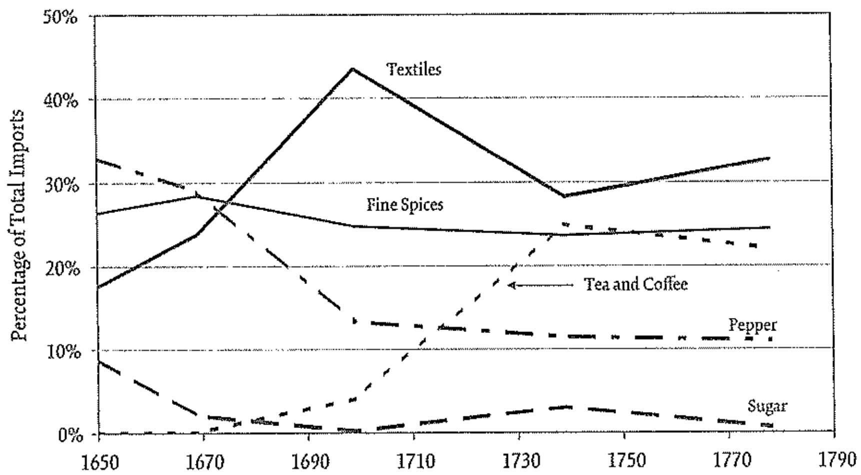



**Figure 10-1.** Imports to the Dutch East India Company at Amsterdam

world, this hot, flavorful beverage has stimulated social intercourse, financial transactions, and at times, revolution.

Legend has it that around AD 700 an Ethiopian herder noticed that on reaching a certain upland pasture, his camels and goats never rested, but pranced about all night. He investigated and found his animals feeding on the red berries of a small shrub. When the herder chewed some of these berries, he too found himself invigorated.[5] Although this story is almost certainly apocryphal, most authorities agree that coffee was first cultivated in Ethiopia sometime shortly after AD 1000 and then made its way across the Red Sea to Arabia Felix (modern Yemen), where members of the Sufi sect—a mystic offshoot of Islam—began consuming it regularly.

Sufis were seldom full-time priests; like most believers, they held day jobs. Almost uniquely among the world's faithful, they solved this problem by performing their rituals, in which they strove for a state of detached, trancelike otherworldliness, late at night. Around the mid-fifteenth century, Sufis began drinking coffee to keep them awake, instead of the traditional Yemeni stimulant, the leaves of the *qat* shrub.

The fact that Sufis were not monastic hermits, but rather men of ordinary affairs, quickened coffee's spread from the religious to the secular sphere. One of the first non-Sufis to notice its healing effects was the mufti of Aden, who, on falling ill,



> took some [coffee] in the Hopes it might do him good. Not only the Mufti's health was restor'd by the Use of it, but he soon became sensible of the other Properties of Coffee; particularly, that it dissipates the Heaviness of the Head, exhilarates the Spirits, and hinders Sleep without indisposing one.[6]

In the late fifteenth century, coffee assumed its dual modern roles as both as a social lubricant and an aid in performing the monotonous and tiring work of everyday life.[7] One early European observer, impressed with its promotion of honest human interaction and business relationships, noted that it

> qualifies Men for entering onto the Bonds of Society, and strict Engagements, more than anything else . . . and for making their Protestations so much the more sincere, as they proceed from a Mind not overcast with Fumes, and are not easily forgot, which too often happens, when they are made by Men in their Wine.[8]

With increased demand, organized cultivation soon sprang up in the hills north of the Yemeni port of Mocha, just inside Bab el Mandeb. Its coffee groves fed a habit that spread rapidly north via the Red Sea trade routes. Around 1500, coffee arrived in Jeddah, the transfer point between large Indian Ocean trading vessels and the shallow draft ships that plied the northern Red Sea. There, it became an instant hit and assumed a Seattle-like importance. One European observer in Jeddah noted:

> They made its Use so common, that it was sold publicly in Coffee-Houses, where they flock'd together, under that Pretence to pass away the Time more agreeably; there they play at Chess, and at Mancalah, even for money. There they fling, play on Instruments and dance; Things which the more rigid Mahometans cannot endure: which did not fail to bring Trouble in the End.[9]

Wherever the coffeehouses were full and the mosques empty, trouble indeed came. In Mecca, its messenger was the Mamluk governor, Khair Beg al-Mimar, a typical killjoy bureaucrat obsessed with a fear that somewhere, somehow, people were having fun. In 1511, with the collaboration of two Persian physicians, he forbade the beverage, for both medical and moral reasons. Meccans thumbed their noses at the decision, and a formal ruling from Cairo wisely allowed home consumption. Within a few years, Khair Beg and the two physicians met terrible deaths, although this probably had more to do with the Ottoman conquest than espressos.[10]

The same morality play ensued as the drink spread north and east throughout the Muslim world. Small dishes of the strong, unsweetened liquid, occasionally flavored with cloves, anise, or cardamom, found their way into the harem; women considered a steady supply of the roasted beans an essential spousal obligation, and failure to provide it constituted grounds for divorce.[11]

In 1555, a Syrian businessman named Shams carried the beans, and the sensation, to Constantinople, where within a few decades several hundred cafés sprang up. These were "thronged night and day, the poorer classes actually begging money in the streets for the sole object of purchasing coffee."[12] Not long after, the familiar drama unfolded on the Bosphorus when the wicked and uneducated vizier Mahomet Kolpili, the power behind Sultan Murat IV, closed the coffeehouses, fearful that they might foment revolution. At nearly the same time in Persia, the wife of Emperor Abbas I proved more politically adept; she did not shutter these establishments but rather infiltrated them with agents who diverted conversation from politics to more acceptable subjects.[13]

By the early seventeenth century, Western visitors could not help noticing the phenomenon. One European estimated that between two thousand and three thousand coffeehouses flourished in Cairo. In Constantinople, the traveler Pietro della Valle observed that in the houses of the wealthy,

> a large fire is kept going [to keep the coffee hot] and little porcelain bowls are kept by it ready-filled with the mixture: when it is hot enough there are men entrusted with the office who do nothing else but carry these little bowls to all the company . . . also giving each person a few melon seeds to chew to pass the time. And with the seeds and this beverage, which they call *kafoue*, they amuse themselves . . . for a period of seven or eight hours.[14]

Any commodity popular in Constantinople soon found its way to the rest of Europe via Venice, which had by then repaired its relations with the Ottomans.[15] Italy's Catholic theologians, like their Muslim counterparts, harbored suspicions about the brew's moral properties, but Pope



Clement VIII spared Europe the caffeine controversy when, around 1600, he sampled a cup and blessed coffee as a Christian beverage. The French physician Pierre de La Roque brought coffee to Marseille in 1644, and his son Jean would later write *A Voyage to Arabia Felix*, a popular book describing his journeys as a merchant and the early history of coffee.

In 1669, the Turks sent an ambassador, Suleiman Aga, to Versailles. Insolently wearing a simple wool coat and refusing to bow before the bejeweled Louis XIV, he addressed the Sun King as an equal and was instantly banished to Paris. His embassy may have failed, but his coffee succeeded. In Paris, he rented a large house in a fashionable neighborhood. Aristocratic women, drawn by rumors of the residence's exotic, perfumed atmosphere, eagerly sought audiences inside, where Nubian slaves served them coffee in exquisitely gilded eggshell porcelain. Their tongues loosened by caffeine, they revealed to Suleiman that Louis had invited the Turks to Paris for the sole purpose of making the Austrians anxious that he might not support them during the expected Ottoman siege of Vienna. This further soured relations between Versailles and the Turks.

The fashion soon spread throughout Paris as Armenians, costumed as Turks in turbans and caftans and carrying trays of pots and cups, sold the beverage from street to street. These roving peddlers gave way to stalls at fairs, and these ultimately evolved into cafés. One of the best known was the Procope, established in 1686 and named after the Italian waiter of one of the first Armenian stall owners. A century later, Robespierre and Marat would conspire at the Procope, and it still serves customers today, as does Venice's even more famous and overpriced Café Florian, founded around the same time.

Brought not by merchants but by soldiers, coffee also came to Vienna from Constantinople. In 1683, the Ottomans surrounded and besieged Vienna for two months before being driven back by an Austrian army largely made up of Poles, among whom was Franz George Kolschitzky. Having previously served as an interpreter with the Turks, he was ideally suited for the dangerous courier duty between the defenders within the city and their Polish allies waiting outside. He cheated death several times by bluffing his way through enemy lines with his Turkish uniform and linguistic ability.

When the Poles finally relieved the city, the Turks left behind not only their hope of conquering Europe, but also large stocks of oxen, camels, tents, and gold that were distributed among the victorious troops. Vienna's defenders also inherited bales of coffee, but they found no takers. Hearing of this, Kolschitzky said, "If nobody wants those sacks, I will take them."[16] Having lived among the Turks, he knew just what to do with the beans. Retracing the beverage's Parisian history, Kolschitzky first began selling the drink on the street and door to door. Later, he rented a small house, which became the first Viennese café.

By 1700 most coffee served in Europe came not to Venice, Paris, or Vienna, but to the banks of the Thames. That the British were now consuming the lion's share of one of the era's great luxury commodities hints that European commercial supremacy had shifted to London, and no group welcomed coffee's pharmacological boost to stamina and mental sharpness more than England's new merchant class. Wherever it spread, the beverage became the "drink of commerce."[17]

England's rapid commercial ascent followed the Glorious Revolution of 1688, in which the Dutch Protestant stadholder Willem III, along with his royal English wife, Mary, overthrew the last Catholic monarch, James II. Willem, now King William, had sought the English crown to unite Britain and Holland in a Protestant alliance against Louis XIV. In order to accomplish this, he willingly dealt away the ancient divine right of kings and elevated Parliament to governmental supremacy. In exchange, Parliament gave William a robust tax base of excise levies (especially on luxury commodities such as coffee) to pay for his war against France.

This grand bargain—the Revolutionary Settlement of 1689—had far-reaching effects. First, the transfer of power from an absolute monarch to a representative legislative body invigorated the rule of law, the essential soil in which nations thrive economically.[18] Second, the establishment of a crown excise tax made it easier for the government to pay off debts, thus making it a better credit risk and dramatically lowering interest rates. As a bonus, lenders perceived that a dominant legislature made up of wealthy bondholders and businessmen was less likely to default on its loans. Between 1690 and 1727, prime interest rates in England plummeted from over 10 percent to 4 percent.[19] Third, after the events of 1688–1689, the Dutch financiers deduced that the commercial wind had shifted and decamped en masse for London. One of the émigrés was Abraham Ricardo, father of the economist David Ricardo, about whom we shall hear more later.



The Revolutionary Settlement turbocharged England's economy. It also made the British the most avid coffee drinkers in Europe, as the nation's merchants, financiers, and stockbrokers congregated in London's coffeehouses. In these establishments, situated by the city's wharves, where news from foreign markets first arrived, the movers and shakers of England's new trading economy met to do business, their wits not dulled by wine and beer as in days of old, but rather sharpened by the elixir of enterprise.

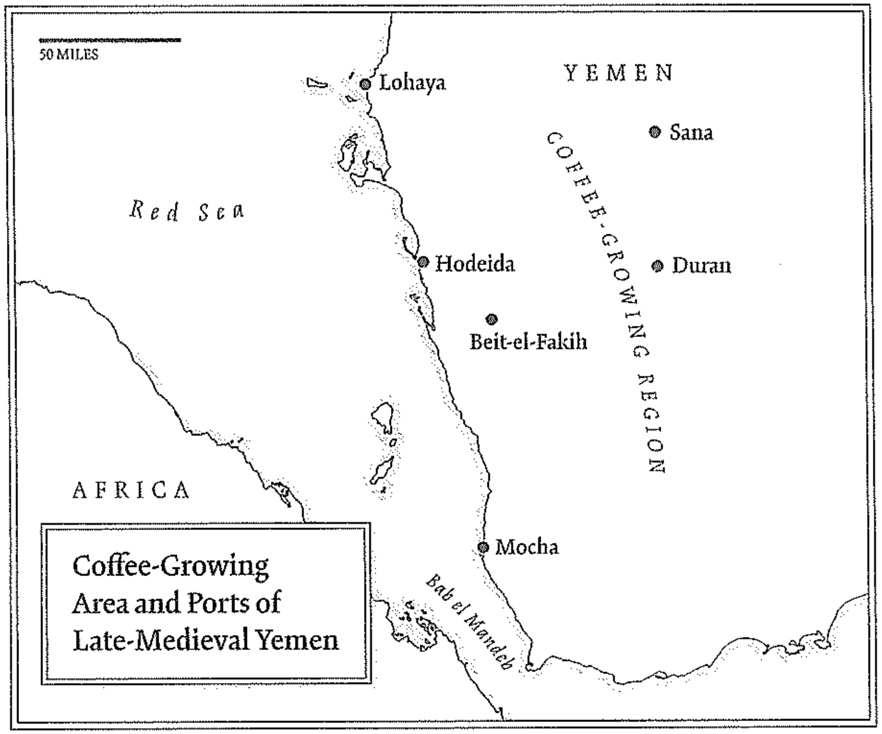
As long as only Yemenis grew the berries, coffee remained scarce and expensive. In the first decades of the eighteenth century, an increasing number of European traders converged on Yemen, first at Mocha, then at the dusty highland town of Beit-el-Fakih in the growing district north of the port. Agents of the VOC and EIC were joined by representatives of French, Flemish, and German trading companies, and an even larger number of Muslim merchants.

The Europeans were Johnny-come-latelies to the trade. In the mid-eighteenth century, most coffee was still going north to its traditional markets in Egypt, Turkey, and Mesopotamia, or east to Persia and India. During the 1720s, for example, Yemen exported about sixteen million pounds (forty thousand *bahars*, or camel loads) annually to the Muslim world, as compared with only about six million to Europe, most of which went to England.

The EIC agents usually ran rings around their VOC counterparts, often leaving the Dutch to purchase overpriced, mildewed beans. The VOC's lack of success resulted from both corruption and laziness. In particular, the Dutch traders were unwilling to leave the relative comforts of Mocha and venture to Beit-el-Fakih, as their competitors were increasingly doing.[20]

As the coffee craze spread in Europe after 1700, more ships appeared in Mocha, as well as in Hodeida and Lohaya, two smaller ports closer to Beit-el-Fakih. The European agents dreaded the entrance of any trading vessel into these harbors, even from their own company, as this invariably raised prices. At one point, beans at their Yemeni source sold for as much as 0.8 guilder per pound, or about $12 in modern value; at such a cost, only the wealthiest could frequent Europe's coffeehouses.[21]

By about 1725, cutthroat competition among the European companies at both ends of the supply chain had squeezed the profit out of the business. The most noteworthy aspect of the Yemeni coffee trade was an event that *didn't* occur. While the British, Dutch, French, Flemish, and




German companies competed viciously, this time they avoided outright war. For their part, the Yemenis greedily savored the frantic bidding among the Europeans. When Parliament rashly directed the EIC to arrest all British subjects in Mocha outside its employ, the local factor recommended against it, as this would anger the sultan, "who we believe would interfere to protect the people of any ship that came to the port as they show an equal respect without distinction to Europeans."[22]

If the Dutch could not outtrade their British and French rivals, they could at least out-cultivate them by transplanting coffee bushes to Surinam, Sri Lanka, and the Malabar Coast. After some initial setbacks, bushes originally transplanted from Yemen to the Malabar Coast were successfully cultivated in the Javanese highlands near Batavia. By 1732, Indonesia grew about 1.2 million pounds of coffee annually, and bales of beans from Surinam and Brazil joined those from the Indies on Amsterdam's wharves. The increase in supply broke the Yemeni monopoly and finally lowered prices. Growers in the new areas could pro-



duce coffee more cheaply than in Yemen, assuring the Dutch of healthy profits.[23]

The plunge in prices brought about by the new growing areas in Indonesia and the New World changed European drinking habits. Suddenly, everyone could afford the odd cup. In 1726 a Dutch clergyman complained that seamstresses would not so much as pass a thread though a needle until they had consumed their morning coffee, and in 1782, one French aristocrat sarcastically sniffed:

> There is no bourgeois household where you are not offered coffee, no shopkeeper, no cook, no chambermaid who does not breakfast on coffee with milk in the morning. . . . There is usually a wooden bench near the merchant's stall or shop. Suddenly, to your surprise, you see a woman from Les Halles or a porter arrive and ask for coffee. . . . These elegant people take it standing up, basket on back, unless as a sensuous refinement they want to place their burden on the bench and sit down.[24]

The quality of Javan beans was not up to that of the real thing from Mocha. While Europeans could generally not tell the difference (except, perhaps, for the fact that the transplanted coffee contained 50 percent more caffeine than coffee from Yemen), more discerning Muslim consumers could, and they would not touch the cheaper Indonesian brew. Nothing better demonstrated the complacent obstinacy of the eighteenth-century VOC than the response of its directors—the Heeren XVII—to reports of the Muslim's disdain for the cup of Java. This august group solemnly reported that they had sampled coffee from both Javan and Mochan beans and could not distinguish between them. They could not believe that "a bunch of boorish Turks and Persians should have so much tastier tongues than we and others like us."[25]

That England was able to achieve primacy in the coffee trade (and later, in tea) did not augur well for its European competitors. These products, after all, originated in places—Yemen and China—where the Dutch and French had a long head start on the British. The worst-case scenario for England's rivals, then, would be a new commodity that grew in many locations and for which there was widespread demand.

Cotton filled the bill precisely. This fabric so pervades modern life that it is easy to lose sight of its unique biological and geographic properties. First and foremost, *Gossypium hirsutum*—the plant species responsible for more than 90 percent of global production today—contains four complete sets of chromosomes, instead of the two sets in most plants and animals. (In scientific terms, it is a tetraploid organism, as opposed to the usual diploid configuration.) Many varieties, including *G. hirsutum*, contain one pair of chromosomes of Asian origin and another of American origin.

Amazingly, recent scientific studies using DNA "molecular clocks" suggest that this hybridization between Old and New World strains occurred about ten million years ago, long before human beings evolved. For the past several million years, various species have grown in places as diverse as Peru, India, eastern and southern Africa, Egypt, New Guinea, Arabia, the Cape Verdes, Australia, the Galápagos, and Hawaii.

How did cotton develop this unique ability to spread, and even crossbreed, across the face of the earth without human help? The answer seems to lie in two unusual properties of its seeds: first, their ability to survive immersion in salt water for up to several years; and second, their natural buoyancy and their propensity to attach themselves to flotsam.

Ancient cotton plants produced fibers only a fraction of an inch long, in contrast to the modern domesticated agricultural product, which yields fibers up to several inches long. Most commercially important plants and animals were domesticated just once, but ancient farmers in both the Old World and the New World independently turned this trick on at least four separate occasions—twice in the Americas (*G. hirsutum* and *G. barbadense*), once in Asia (*G. arboreum*), and once in Africa (*G. herbaceum*).[26]

India's highly varying soils yielded different varieties of cotton, which in turn produced the rich diversity of Indian manufactured cloths, such as fine muslin from Dacca in east Bengal and sateens and printed chintz from the Gujarat. Just as today's automobile, movie, and software industries crystallized around the technical expertise that accumulated in Detroit, Hollywood, and Silicon Valley, respectively, in the sixteenth century Indian cities such as Kasimbazar and Ahmadabad attracted spinners, weavers, and finishers, and their products became world famous. Of India's four major textile centers—the Bengal, the Punjab, the Coromandel (southeast) Coast, and Gujarat—the last was by far the most important and supplied the Muslim empires of the Middle East with both common cloth and the finest luxury fabrics, via the Red Sea and Persian Gulf routes.



Until well into the modern era, textiles were the world's primary manufactured product. Often woven with silver, gold, and silk, they were also the chief form of stored wealth for both rich and poor; most families wore their estate on their backs and hung it on their walls and windows. More to the point, people inherited these textile treasures from their parents; fashions would remain relatively unchanged for centuries, and all but the wealthiest possessed only a few items.[27] Styles not only were static over time but were also rigidly segregated by class. An inflexible social structure, reinforced by sumptuary laws, determined just who could wear what. In the mid-seventeenth century, the EIC disrupted this age-old state of affairs, turning the worlds of English industry, trade, fashion, and social rank upside down in just a few decades. The Company's instrument in this commercial revolution was cotton.

The fabric's evolution into a major trade commodity bears a striking resemblance to that of sugar. At the EIC's birth in 1600, cotton was a high-end product on a par with silk; that it was affordable at all, even as a luxury item, depended on the cheapness of Indian labor. Like sugar, cotton is easy to grow but requires an enormous amount of labor to process. At the dawn of the industrial age, growing a hundred pounds of the crude mixture of fibers and seeds—the bolls—consumed only about two person-days of work. Removing the seeds from the bolls (ginning), arranging the fibers in parallel order (carding), and packing (bailing) took another seventy person-days and yielded just eight pounds of raw cotton ("cotton wool").[28] Female spinners (whence "spinster") required another thirty-five person-days to transform this amount of cotton wool into thread. Thus, about thirteen days labor were needed to produce each pound of cotton thread, compared with one or two per pound of wool, two to five for linen, and six for silk.[29]

India had not only a large and inexpensive workforce, but also centuries of expertise with cotton textiles. The assembly of millions of short, fragile cotton fibers into a durable thread is no mean task. Before 1750, English spinners could not produce cotton thread strong enough to use in the lengthwise fabric warp, so domestically made cloth was usually a mix of linen or wool warp and cotton weft; only the more highly skilled Indian spinners manufactured thread adequate for bolts of pure cotton fabric. Thus, before the invention of practical spinning machines in the eighteenth century, almost all of the West's cotton cloth came from thread spun in India.

In the early 1600s, the EIC commanded only a small portion of the all-important spice trade; its major business was in Persian silks, shipped by camel over the Syrian desert to Turkish ports. Before long, the EIC began tapping the Indian fabric markets as well. At that early stage, no one could imagine that the trade in these textiles would eventually ignite the Industrial Revolution, destroy Indian textile manufacturing, spark a controversy over free trade in Britain as contentious as any seen in today's globalized economy, and, last but not least, give birth to the British Empire.

Within several decades of the Company's chartering by Elizabeth I on the last day of the sixteenth century, England was gazing at a kaleidoscope of fabrics, colors, and patterns the like of which had never been seen before in Europe. England's traditional heavy, monochrome woolens could not compete with clothes, drapery, and upholstery made of the light, gaily colored printed Indian fabric. Nor did it hurt that one of the world's most efficient commercial organizations now ran the cotton trade.

The EIC was not content to let mere market demand drive its sales and imports. In the mid-seventeenth century, the Company began to actively manipulate consumer tastes, and in the process invented both the fashion industry and consumer society as we know them today.

The EIC realized that if "fashion leaders" wore Indian chintz and hung calico drapery, others would quickly follow. In a corrupt and class-obsessed monarchical society, it was relatively easy to identify and seduce these fountainheads—the royal family. If they adopted a given style, the aristocracy would follow, and the aristocrats would in turn be aped by the minor nobility, who would in turn be slavishly copied by the commercial elites, and so on down the line to the humblest peasant with a few shillings to spare.

By the late seventeenth century, Indian chintzes had already found limited favor among small numbers of the English middle class because they mimicked the more expensive silks, satins, and taffetas worn by the aristocracy. The royals themselves, however, shunned the new imitators from the subcontinent, preferring the "real thing." Sir Josiah Child, governor of the EIC, set out to change things. The Company had previously made a "gift" of silver tableware worth £3,000 to Charles II in 1660, but the directors decided that it was useless to dole out such small change. In 1684 they extended to the monarch "voluntary contributions" of £324,250, and in addition both the king and the Duke of York were granted company shares. The birth of constitutional monarchy in 1689 did not stop such favors. In 1698 one courtier observed that in the queen's chamber "all [the] Indian Embroidery on white satin [was] presented to her by the Company."[30] Other members of the nobility were not forgotten; to them went not only calicoes and shares, but also committee memberships and free freightage on EIC ships.[31]



By the early eighteenth century, cotton fabrics had deposed silks and woolens at the apex of the fashion world. Daniel Defoe observed:

> Our wrought silks and our fine stuffs submit to that noble usurpation of printed calico; striped muslins have most gallantly deposed your manufacture of bordelace, and are sometimes sold for as great a price.[32]

The EIC had also discovered the salutary effects of annual changes in style. Defoe sniffed, "[That] the clothes [are] thrown by in *England*, not for their being worn out, *but merely for their being out of Fashion* is incredible, and perhaps are equivalent to the Clothing Expense of some Nations."[33] The Company also encouraged the concept of "undress," or what we today call leisure wear—lightweight gowns and shifts worn in the privacy of the home.[34]

While enlisting high and low fashion in the service of the EIC, Josiah Child did not neglect the status of its Indian outposts. Less than a decade after its founding in 1600, the Company established its first base of operations at Surat (north of Bombay), the chief Mughal port, which had succeeded Cambay after the latter silted up. By the time Child became a director in 1677, the EIC had already established "presidencies," or trading posts, in Madras (on India's southeast coast) and Bombay. (Bombay derives its name from *Bom Baia,* or "good bay," the name given to it by the Portuguese. In 1661, England's Charles II had acquired it as a dowry from his

Portuguese bride, Catherine of Braganza, and the port soon overshadowed nearby Surat.[35]) In 1690, under Child's leadership, a third presidency was established in Calcutta. Eventually, these trading posts, whose main purpose was the purchase of textiles, would become the cornerstone of the British Empire.

An unabashed admirer of the Dutch system of fortified trading posts, Child rapidly built up the EIC's military presence at the three presidencies. This policy paid off during the conflict between the Mughals and Hindu Marathas that raged between 1681 and 1707. He also solidified the complex "trading rules" required by the two-year "feedback loop" between the initial departure of cargoes of silver and trade goods from England and the arrival back home of calicoes.

By the end of the seventeenth century, the Company was shipping home more than 1.5 million cotton bolts and clothing items per year, which represented 83 percent of the total value of its imports.[36] Spices were dead; cotton was now truly king.

Needless to say, the EIC's competitors howled in protest. For example, the Levant Company sought in 1681 to prohibit importation of India's superior cotton fabrics.[37] Its arguments had the familiar ring of protectionist sanctimony, charging that purchases by the EIC had drained Britain of gold bullion in order to acquire

> calicoes, pepper, wrought silks, and a deceitful sort of raw silk—calicoes and wrought silks manufactured in India being an evident damage to the poor of this nation and the latter of raw silks an infallible destruction of the Turkey trade.[38]

This was not all. The EIC also stood accused of exporting advanced English technology to India, having sent

> into India throwsters, weavers, and dyers, and actually set up there a manufacture of silk . . . importing them ready made and dyed into England is an unspeakable impoverishment of the working people of this kingdom who would otherwise be employed therein and to the ruin of many thousands of families here.[39]

Josiah Child, recently elevated to the governorship of the EIC, carried the day, as he so often did:



> The truth of the case at bottom is this: the importation of better and cheaper raw silk from India may probably throw some Turkey merchants' profit at present though it doth benefit the kingdom. . . . What then? Must one trade be interrupted because it works upon another? At that rate there would be nothing but confusion in a nation ad infinitum.[40]

Modernize the grammar and change a few nouns, and the above exchange could easily pass for television talk show repartee between opponents and supporters of the latest international trade agreement.

In the closing years of the seventeenth century, three groups in England coalesced into a strange protectionist alliance dedicated to shutting down cotton imports from Asia: the moralists, angered by the social disruption caused by the new finery; the silk and wool weavers, made redundant by a cheaper and better foreign product; and the mercantilists, angered by the outflow of silver to pay for mere fashion. These forces rose against the EIC and caused dire consequences for the Company and also revolutions in England's economy, social structure, and empire. In addition, as we shall see in chapter 11, they also destroyed the bedrock of India's economy, its textile industry.

Of the three groups opposed to the India trade, the mercantilists were the most influential. The debate between them and the free-traders supporting the EIC engaged the nation's most talented economic minds and found expression in that era's equivalent of the political blog, the pamphlet, which generally sold for a few pence per piece. Mercantilist theory was simplicity itself: a nation's wealth was measured by the amount of gold and silver it possessed.

In other words, international commerce constituted a zero-sum game in which one nation's gain came only at the expense of another, and the only way for a country to grow rich was to garner gold and silver from abroad by exporting more than it imported. In modern parlance, the route to wealth lay in a positive trade balance. This, too, was a grim tug-of-war, since every gold sovereign or piece of eight accrued by one nation had to come from a competitor. In the words of an early EIC merchant, Thomas Mun, "We must ever observe this rule: to sell more to strangers yearly than we consume of theirs in value."[41]

Not all imports and exports were equal in the mercantilist scheme of things. Ideally, a nation should import only raw materials and export only finished manufactured products, as this practice would maximize employment. Likewise, a prudent people eschewed the consumption of foreign luxury products, since these vaporized large amounts of gold and silver and weakened domestic employment, a tenet aimed squarely at the EIC. The mercantilist sought to minimize imports with high tariffs or, occasionally, outright prohibition, and to encourage exports by eliminating embarkation duties, and even by subsidizing exports.

Today, the fallacy of these arguments is obvious: nations grow wealthy mainly by improving their industrial and agricultural productivity. The consumption of foreign luxuries causes little concern, and few Americans care how many bars of gold sit in vaults in Fort Knox or in the New York Federal Reserve Bank. (The ghost of mercantilism still haunts the modern world in the form of import duties and restrictions, and, most perniciously, agricultural subsidies.)

Three hundred years ago, as England debated the India trade, few detected the flaws in mercantilism.[42] One observer, Roger Coke, noted that Holland, the world's wealthiest nation on a per capita basis, "imported everything," whereas impoverished Ireland exported far more than it imported.[43] Another, Charles Davenant, cogently explained that the benefits of keeping a nation "more Cheaply supply'd" with foreign imports far outweighed the damage done to domestic employment. He perceptively argued that trade was not in fact a zero-sum game, "For all Trades have a Mutual Dependance upon one another, and one begets another, and the loss of one frequently loses half the rest." In his view, protectionist measures were "needless, unnatural, and can have no Effect conducive to the Publick Good"; further, they encouraged inefficient domestic industries with artificially high prices and threw good money after bad.[44]

By far the most remarkable early free-trader was Henry Martyn, whose *Considerations upon the East India Trade* preceded by seventy-five years Adam Smith's *Wealth of Nations*. Martyn saw clearly that mercantilists, by equating gold with wealth, repeated the mistake of King Midas. Precious metals are useful only because they can be exchanged for things we want or need. A nation's true wealth, Martyn realized, was defined by how much it *consumed:*

> Bullion is only secondary and dependant, Cloaths and Manufactures are real and principal riches. Are not these things esteem'd Riches over the World? And that Country thought richest which most abounds in them? *Holland* is the Magazin of every Country's Manufactures; *English* Cloth, *French* Wines, *Italian* Silks, are treasur'd up there. If these things were not riches, they wou'd not give their Bullion for 'em.[45]



Martyn gloried in the cornucopia of trade:

> Why are we surrounded by the Sea? Surely that our Wants at home might be supply'd by our navigation into other Countries, the least and easiest Labour. By this we taste the spices of *Arabia*, yet we never feel the scorching Sun which brings them forth; we shine in silks which our Hands have never wrought; we drink of Vinyards which we never planted; the Treasures of those Mines are ours, in which we have never digg'd; we only plough the Deep and reap the Harvest of every Country in the World.[46]

Martyn freely admitted that allowing in cheap Indian goods cost English weavers their jobs, but he saw their labor as wasted "make work" that could be more profitably employed elsewhere:

> If the Providence of God wou'd provide Corn for *England* as *Manna* heretofore for *Israel*, the People wou'd not be well imploy'd to Plough, and Sow, and Reap. . . . In like manner, if the *East-Indies* wou'd send us Cloaths for nothing, as good or equivalent of those made in *England* by prodigious labour of the People, we shou'd be very ill imploy'd to refuse the Gift.[47]

Martyn's brilliant economic insights strayed too far ahead of their time, and unlike Adam Smith he did not become a household name. In the case of the EIC's Indian imports, the legislative records barely mention him or Coke and Davenant; only the mercantilist John Pollexfen, a member of the Board of Trade, influenced parliamentary debate in the way that Smith would do in the nineteenth century.[48]

The real battle—the political one—began in 1678. In that year, Parliament, mindful of the difficulty of mandating fashion for the living, required that the dead, at least, be buried in wool. Over the next decade, the EIC and its allies narrowly defeated a series of bills aimed at their imports. One would have required the wearing of wool by all students, faculty members, judges, and lawyers; another, the wearing of wool by all citizens six months of the year; yet another, the wearing of felt hats by all female servants earning less than £5 per year.

By the time of the Glorious Revolution of 1688, the calico controversy had grown more contentious. With the ascension of the Dutch King William, the Company lost much of its previous influence over the monarchy. A newly adjusted Land Tax paid for King William's conflict with France and burdened English landowners. In turn, the landowners saw the merchant class as villains perpetrating the cardinal sin of mercantilist dogma: draining the kingdom of gold and silver to pay for Asian frivolities. The new merchant class, represented by the EIC, found itself generally outgunned by the moralists, weavers, and mercantilists and fighting a rearguard action against the forces of protectionism.

In 1696, weavers and spinners from Canterbury, Norwich, Norfolk, and Cambridge, impoverished by competition from calicoes, petitioned Parliament for relief. The House of Commons responded with a draconian bill which would have outlawed the importation of any cotton fabric into the kingdom and penalized violators with a £100 fine—five to ten years of wages for the average worker. Proponents of the bill mustered a steady stream of witnesses who had been damaged by the India trade—not just wool and silk makers, but also domestic lacquer workers and makers of furniture and fans put out of work by less expensive Indian products. Opposition came from the EIC and its supporters—upholsterers, linen drapers, dyers, and calico printers.

The bill sailed through the House of Commons, but it was killed behind closed doors in the House of Lords, probably in a hail of bribes from Child. The weavers, stung by this treachery, marched on Parliament, which took the bill up again later in 1696. In January 1697, five thousand weavers, agitated by the false rumor that the bill had yet again been thrown out, surrounded Parliament and managed to break into the Commons lobby. The members locked the door to the main chamber, whereupon the weavers proceeded to the EIC headquarters, where they also failed to break in. Security was tightened at both Parliament and the EIC, and a cowed House of Commons placated the weavers by once again passing the bill. Once more, Child greased the skids in the House of Lords by "pouring gold in plenteous showers in ladyes' laps who bore great powers."[49] Yet again, thousands of weavers marched in anger, this time on Child's house, where soldiers fired on the mob, killing one and injuring several others.



Wealthier sponsors now acted against the EIC. For many years, small private merchants had traded in Asian ports in violation of the Company's monopoly. In 1698, Parliament gave official status to these "interlopers," as they were called, and granted them a charter for the New East India Company. To reestablish its monopoly, the original EIC was forced to buy a majority of shares in the new company and then merge its operations into the old one.

At this critical juncture, in 1699, Child died. Absent his intellectual presence and deep pockets, the forces of protection finally triumphed. In April 1700, the party of the landed interests, the Tories, succeeded in passing the Prohibition Act, which forbade the importation of painted or dyed calicoes and silks; unpainted fabrics were still permitted, though they became subject to a 15 percent import duty.[50]

The 1701 Act (named for the year it actually became effective) backfired, for three reasons. First, calicoes became forbidden fruit, and thus even more desirable. Second, smuggling, the inevitable accompaniment of prohibition, flared up in the years following the act's passage. In the words of one pamphleteer, "England being an Island, there are a thousand places for putting goods on shore."[51] Though most of the smuggled calicoes were brought in by French and Dutch merchants, no small amount entered England in the private baggage of the EIC's employees. Third, and worst of all for the weavers, the act aided domestic cotton manufacturers by providing them with large amounts of plain Indian cloth to feed their advanced printing machinery. The wool manufacturers soon realized that the act had worsened their situation. Before its passage:

> Calicoes printed in India were most used by the richer sort of people whilst the poor continued to wear and use our woolen goods. The calicoes now printed in England are so very cheap and so much the fashion that persons of all qualities and degrees clothe themselves and furnish their houses in great measure with them.[52]

This overstated the case. Because of the enormous amount of labor required to turn raw cotton into fine cloth, finished calicoes were still more expensive than wool or silk garments. The economic downturn of 1719, caused by war with Spain, pushed silk weavers and wool weavers to desperation. On June 10 of that year, several hundred workers from Spitalfields, the silk-weaving district of London, attacked stores that sold calicoes, cotton printing shops, and even people unfortunate to be caught wearing the fabric. In some instances the "calico chasers" ripped the hated fabric off wearers' backs, soaked the garments in corrosive nitric acid, mounted them on sticks, then paraded these motley trophies through the streets. For months, weavers terrorized London. The disturbance ended only with the onset of winter, when even the most fashionable ladies clad themselves in warmer wool.[53]

The specter of insurrection frightened Parliament and the new Hanoverian monarchy. They debated how to mollify mobs of weavers, who on at least one other occasion again angrily surrounded Parliament, chanted, and demanded action. The legislative battle raged for two years. Finally, in 1721, following the economic chaos caused by the collapse of the South Sea Bubble, Parliament banned even the importation of plain Indian cloth. Wearing it also became a crime; violators were fined £5, which could be claimed by the informer. Thenceforth, only thread or raw cotton could be imported. Curiously, Parliament allowed one exception to the ban on whole cloth: women were allowed to wear imported cottons if dyed an unfashionable plain blue.[54]

Inevitably, these protectionist measures backfired against the woolen industry and the silk weavers. At the beginning of the eighteenth century, calico was the classic "high value-added commodity." The wealth of Croesus awaited those who could bridge the gap between cheap raw cotton and the expensive, smooth, light cloth desired by consumers. High demand and high prices for calicoes, combined with the unavailability of Indian cloth, drove innovators to improve the spinning and weaving processes.

Improve they did. Just a dozen years after the passage of the act of 1721, John Kay perfected the flying shuttle, which doubled weavers' productivity. This served to increase the demand for thread, whose spinning was more difficult to mechanize. In 1738, Lewis Paul and John Wyatt patented the first mechanical spinning machine, but no commercially feasible device became available until the mid-1760s, when such machines were invented by James Hargreaves, Richard Arkwright, and Samuel Crompton. (These were, respectively, the spinning jenny, the water frame, and the mule, the latter so-called because it was a hybrid of the first two.)[55]

As the economic historian Eric Hobsbawm famously said, "Whoever says Industrial Revolution says cotton." The new machines that were



the heart of the great transformation made redundant untold thousands of spinners and weavers, who engaged in spasms of "machine breaking" in the eighteenth and nineteenth centuries before finally disappearing into the new mills.[56] (The term "Luddite" derives from the probably fictional leader of the machine-breaking riots in the 1810s, Ned Ludd.)

Immediately after the act of 1721, the EIC's favored import had been Indian thread, but with the advent of these ingenious new machines raw cotton became the fodder of the Industrial Revolution and the trade commodity of choice. In the early 1720s, the EIC imported about 1.5 million pounds of cotton wool per year from India; this figure rose to about thirty million pounds by the late 1790s.[57]

Over the next seventy-five years, the English cotton industry increased demand for its inexpensive new products by inventing the multipronged consumer marketing machine so familiar today: fashion magazines, an ever-shorter style cycle, retail showrooms, and regional warehouses fed by the country's newly privatized roads and turnpikes.[58]

Asia's cotton crops were no longer sufficient to satisfy the hungry maw of the dark, satanic mills. England's factories turned out half a million pounds of finished cloth in 1765, two million in 1775, and sixteen million in 1784. English settlers began to plant cotton in tropical South America and the West Indies, which were already well supplied with slave labor, but even these could not satisfy Lancashire's demand for raw cotton. The supply would come not from the empire, but rather from the newly independent United States.

At the time of the first census in 1790, the young republic contained roughly seven hundred thousand slaves (about one-sixth of the total population), most of whom lived in the South. But owing to an agricultural depression, the South at that time actually exported more slaves than it imported. In 1794, this situation changed when Eli Whitney invented the cotton gin—a crude nail-and-cylinder device that efficiently separated fiber from seed. This machine converted the South's huge arable basin into England's cotton farm, just a few weeks' sailing time away from Bristol and Liverpool (versus six months around the African cape from India).

By 1820, American cotton exports, primarily to England, would grow to two hundred million pounds annually, and by the eve of the Civil War that number would swell to two billion pounds.[59] England, indignant over the Confederacy's aggressive defense of slavery and disdainful of the

Scotch-Irish rabble who settled the South, should by rights have sided with the Union. Such, however, was the dark influence of King Cotton that Britain remained neutral throughout the conflict.

Just as the loss of the Spice Islands to the Dutch in the seventeenth century had forced the EIC to shift its focus to Indian textiles, the loss of the highly profitable trade in finished cottons and silks in the eighteenth century once again shifted its center of gravity. This time, it would turn to China and the tea trade.

Whereas India was a fractious land divided along ethnic, religious, and political lines, and thus highly susceptible to manipulation by Europeans, China was an ethnically coherent, centralized country. It easily kept Western merchants at arm's length and permitted them entrance only into Canton. Worse, the Chinese had little appetite for Western goods besides mechanical novelties, such as watches, clocks, and "singsongs" (the intricate European music boxes favored by the imperial household), or the exceptional strategic commodities they lacked, such as copper. This trade imbalance would explode into open warfare in the mid-nineteenth century, and that conflict yet poisons present day Sino-Western trade and politics.

The EIC's China ships were dedicated to tea transport, crafted for speed and crammed with specially designed sealed chests to protect their precious but perishable cargo. As the Dutch had avoided the Portuguese by bypassing Malacca, so too did the English steer clear of the strait to avoid the Dutch. Outbound, the sleek China boats followed the route of the Ancient Mariner on the frigid roaring forties south of Australia before turning north. Homebound, they avoided Dutch patrols by steering southeast into the open Pacific before threading past the eastern tip of New Guinea and the shallow Torres Strait north of Australia.

Since China largely excluded Westerners, Europeans knew little more about growing tea than they did in the time of Marco Polo. The production process was far more complex than merely growing and drying the leaves. By the time tea appeared on Canton's wharves, it had been processed, transported, and stored numerous times. At each stage it was tasted and blended with leaves from other towns and provinces, and adulterated with ingredients as exotic as scented bergamot or as dishonest as sawdust.



Coffee had a century's head start on tea; the VOC brought the first cargoes of the dried tea leaves to Amsterdam around 1610; the first shipments reached England around 1645; and in 1657 Garroway's Coffee House in London's financial district began selling the beverage.[60] When Portugal's Catherine of Braganza married Charles II, she brought to the English court not only the dowry of Bombay, but also tea brewing, which had by then become well established in Lisbon. As with cotton, the road to commercial success in England ran directly through the royal chambers; it was not long before the nobility, the lesser aristocracy, and aspiring commoners soon followed. In 1685 the EIC informed its buyers in Canton:

> Thea is grown to be a commodity here and we have occasion to make presents therein to our great friends at Court; we would have you send us yearly five or six canisters of the very best and freshest Thea.[61]

In 1700, a pound of leaves for which a Chinese peasant was paid one penny sold in European shops for about £3. By 1800, that price had plummeted 95 percent to about three shillings, making tea affordable for most citizens. In 1700, only the wealthiest drank tea; at mid-century, most members of the bourgeoisie (including, famously, Dr. Johnson) consumed it regularly; by 1800 it was swilled even in the workhouses.

The Company more than made up for the drop in price with the rise in volume, which over the eighteenth century rose from fifty tons per year to fifteen thousand. Even if most tea was reexported to places such as Paris and Boston, that still left one or two pounds per year for every Englishman. The EIC made perhaps a shilling per pound—not an enormous profit margin, but multiplied over thousands of tons per year, enough to inspire hatred and envy at all levels of British society. Even more venom was reserved for the crown, which levied taxes totaling as much as 100 percent of the landing price in England. As Englishmen grew addicted to tea, the crown grew addicted to duties on its import.

Smuggling inevitably followed high tariffs. England's south coast and West Country became a paradise for landing contraband tea, while French traders favored the Channel Islands. Typically, local entrepreneurs rowed out to waiting foreign vessels to purchase the illicit cargo that eventually found its way into caves, castles, private homes, and even church crypts. Women traveling abroad equipped their petticoats with hidden pockets. As much as three-quarters of the brew consumed in England was contraband, a proportion surpassed only in the American colonies. By the middle of the eighteenth century, the conflict between tea runners and customs agents verged on open warfare. The tombstone of one smuggler reads:

*A little tea, one leaf I did not steal*
*For guiltless bloodshed I to God appeal*
*Put tea on one scale, human blood in t'other*
*And think what 'tis to slay a harmless brother.*[62]

Ironically, the smugglers, by dramatically bringing down the cost of tea, increased its consumption. In 1784, the government finally came to its senses and reduced the tariff from 120 percent to 12.5 percent.

The explosion in tea imports during the eighteenth century cannot, however, be credited entirely to the smugglers, let alone to the marketing genius of the EIC. Because tea was relatively cheap at its source in China, it was served there lukewarm with little aplomb in a handle-less cup. The Japanese, because of its expense, poured it with far greater ceremony, and Europeans served it hot so as to quickly dissolve the sugar used to make it palatable to the Western tongue. This custom required a new invention: the cup handle.

The handle-less Chinese cups stacked easily and could be shipped as ballast and sold for a few pence. The handles were added later, and by the mid-eighteenth century, handle makers had become a fixture in most large European cities. Gradually, the secrets of making fine porcelain were solved by European craftsmen such as Josiah Wedgwood, whose technical skill was exceeded only by his marketing genius.

Tea consumption burgeoned as beverage and cup combined to change the very rhythm of daily life in England, punctuating the day with ceremonial occasions around which social activity and organized conversation flowed, from the most stylish households to the humblest of workplaces. It amazed and annoyed the aristocratic fountainheads of fashion that the great unwashed had adopted their once exclusive preserve.[63] As early as 1757, one observer scoffed:



> The laborer and the mechanic will ape the lord. . . . Your servants' servants, down to the very beggars, will not be satisfied unless they consume the produce of the remote country of China.[64]

The histories of tea and sugar are also intertwined and their consumptions rose nearly in tandem. The sugar planters encouraged the consumption of tea, realizing that it was in their interest, and the EIC did the same for sugar, in which it otherwise had little direct trade. By the eighteenth century, it amazed few observers that these two items, considered necessities from the high to the humble, grew thousands of miles from England and on opposite sides of the world from each other.

The story of sugar cannot be grasped without an understanding of Caribbean history. Since 1492, Spain had claimed the Caribbean as its exclusive preserve, while the Dutch, English, and French sought for centuries to prise it from Spanish hands. In 1559, the French and Spanish agreed that the region was "beyond the line"—that is, exempt from whatever treaties and agreements bound them in the rest of the world. The region was up for grabs—the Wild West of the 1600s and 1700s—and exerted an irresistible pull on adventurers all over Europe.

The Caribbean was no late-medieval tropical paradise, but rather a Hobbesian maelstrom of avarice and barbarity. Europeans who sailed west flouted not only the treaty obligations of their home countries, but also the mores and boundaries of normal behavior. These deviations manifested themselves in all manner of excess: drinking, overspending, and violence toward natives, slaves, and each other. When a Frenchman could find no Dutchman, Spaniard, or Briton to kill, his own countrymen sufficed quite nicely. In the spirit of the times, the first English efforts in the region were led by pirates such as Drake and his cousin Hawkins, who traded slaves to European planters when they were not plundering the shipping of Portugal and Spain.

Traditionally, geographers have divided the Caribbean islands into the Greater Antilles—Cuba, Hispañola, Puerto Rico, and Jamaica—and the Lesser Antilles: the numerous smaller islands curving south toward Venezuela. The Spanish quickly settled the Greater Antilles, which then became a backwater, second fiddle to the far greater riches of Mexico and

South America. This left only the scraps, the Lesser Antilles, to the French, Dutch, and English. Although the Spanish had little direct territorial interest in these flyspecks, they could not be ignored, since the treasure ships bearing silver from Mexico and South America had to thread the strategic, narrow passages through them on the way home.

The British began modestly in the Caribbean by acquiring the tiny island of Saint Christopher (modern-day Saint Kitts), in 1623. It would soon be lost to France, then regained by diplomatic means. (More than a century later, Alexander Hamilton was born on neighboring Nevis.) In 1627, England began planting subsistence crops on Barbados, a larger (166 square miles), uninhabited, isolated island well to the east of the main chain.

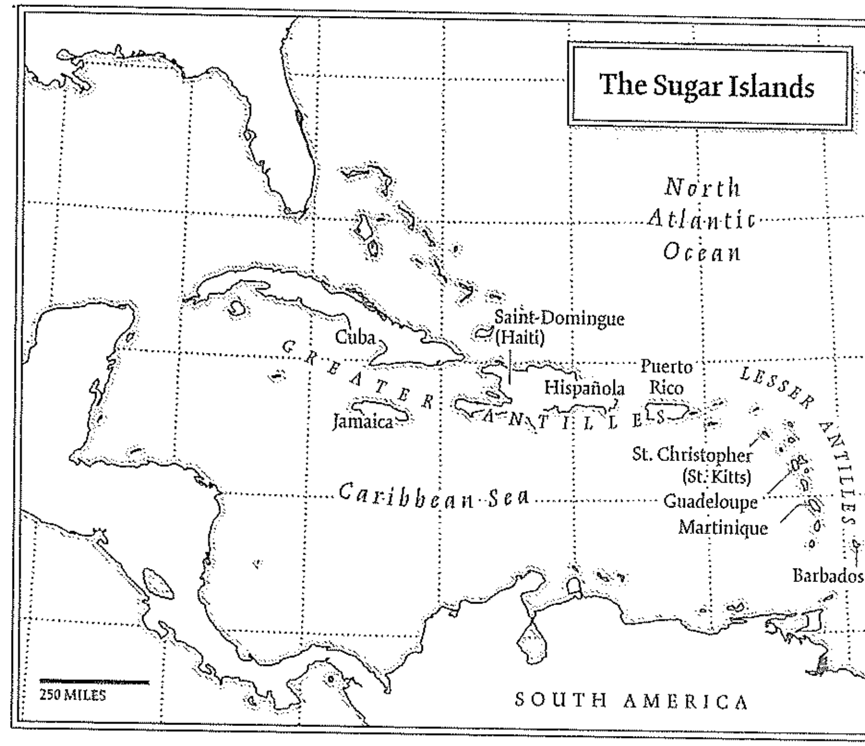
In 1625 the crown awarded Barbados to two competing royal "patent holders," William Courteen and the Earl of Carlisle. When the latter won out around 1630, he distributed the land among 764 settlers, with grants ranging from about thirty acres up to a thousand. These first immigrant farmers produced food for themselves and also planted cash crops, the most important of which were tobacco and cotton.

Each of the new landholders in turn typically attracted paid laborers and indentured servants from England with promises of small plots, generally ten acres, at the completion of their service. Early on, most of these promises were kept, but when the land ran out in the 1630s, new immigrants were faced with the unpleasant choice of leaving for other islands in search of land, remaining on Barbados, or returning empty-handed to England.

Initially, then, Barbadian society was not radically different from English society, with few, if any, slaves. Around 1640, the inhabitants noted the rapid increase in European demand for sugar and decided to band together to plant cane, which had arrived from Surinam shortly after Barbados was first settled.

Fate smiled on the island, for just at that moment small-time Dutch interlopers, seeking to carve out a sugar-carrying trade independent of the monopoly held by the Dutch West India Company (WIC), appeared in the Caribbean offering French and English settlers expertise in sugar growing and slaves. Further assistance became available between 1645 and 1654, when the Portuguese settlers drove the WIC out of Brazil, and Dutch-Portuguese Jewish growers, not eager to stay in a colony






newly reconquered by Portuguese Catholics, made their services available in the Caribbean.

Within a few decades, the first British farmers and their servants had almost completely cleared Barbados and planted it with cane. By 1660, it had more settlers than Virginia or Massachusetts, four hundred inhabitants per square mile, or four times the population density of England. It had become the world's largest sugar producer, supplying almost two-thirds of England's consumption.[65] Just how was this tiny island able to rival its much larger competitors in Brazil and the Greater Antilles? Some of the answer can be found in the agreeable soil and availability of wind power on its leeward side, which was relatively protected from hurricanes. Credit also belongs to the capitalist mind-set of the English farmer, who owned his own land (or at least paid his own rent to the landowner), hired his own labor, and reaped his own profits. The Brazilians, by contrast, used a paternalistic sharecropping model in which small farmers sent their cane to the landowner's mill and received in return only a fraction of the refined sugar it yielded.[66] With sugar prices so high and land at such a premium in Barbados, farmers planted little acreage with subsistence crops, and the island had to import much of its food, a pattern that would be repeated later on the larger Caribbean sugar islands.

Of all the islands, Barbados held the firmest grip on the British imagination. Its fertile soil yielded cane in abundance, and its cool, rolling uplands reminded homesick settlers of England. One early settler, Richard Ligon, rapturously described his first visit:

> The nearer we came, the more beautiful it appeared to our eyes. . . . There we saw the high, large, and lofty Trees, with their spreading Branches and flourishing tops . . . as to grow to that perfection of beauty and largeness. Whilst they in gratitude return their cool shade . . . The plantations appear'd to us one above the other, like several stories in stately buildings, which afforded us a large proportion of delight.[67]

The easterly trades provided the cane crushers with reliable power, and by 1660 the island was dotted with hundreds of picturesque windmills. But the settlement's true appeal was a rather less aesthetic quality: it had become one of the world's wealthiest places, and its planter aristocracy the stuff of gaudy legend.

Before the rise of the New World sugar plantations, the far-flung plantations of the Mediterranean and eastern Atlantic islands usually shipped hogsheads of raw brown "muscovado" to industrial refineries in the home country for final processing into the fine white sugar craved by consumers. As Barbadian production rose, the planters acquired the sophisticated crystallization technology and bypassed the European refineries. English refiners reacted in the predictable protectionist language of national interest:

> One ship of white brings the lading of three of brown. . . . Is this the way to maintain Nurseries for our Seamen? Since refining in England hath been a trade before ever we had plantations [it was absurd that] it should be lost by having them.[68]

They needn't have worried, for the sugar industrialists of Barbados soon turned their efforts away from the white gold to a cane product whose very name became synonymous with the island: rum. The sweet alcoholic beverage, first fermented by Barbadian slaves from molasses, the waste product of the refining process, soon found itself in demand in Africa, where it was greatly preferred to English brandy. Before long Caribbean traders dispatched ships loaded with rum to the Gulf of Guinea to exchange for slaves. Barbadian planters directed their factories toward rum production and kept the island the richest place in the Caribbean well into the eighteenth century, even as its sugar output fell well behind that of Jamaica, Saint-Domingue (modern Haiti), and the Leewards.[69]



While some of the original settlers stayed on to join the new planter elite, many sold their property, which had appreciated tenfold in the 1640s alone, and retired to England. Those who took their place were nothing like the doughty yeomen who hacked farms out of the tropical forest in the 1620s and 1630s. The optimal size for a Barbadian sugar plantation seemed to be about two hundred acres, large enough to make its mill economical. After 1650, buying one of the increasingly pricey plantations required a healthy line of credit; many of the new arrivals were the poor but creditworthy younger sons of the landed aristocracy, usually fresh from the battles of the English civil war. Typical of the new breed was Thomas Modyford, who

> had taken a Resolution to himself not to set his face towards England, till he had made his voyage, and imployment there, worth him a hundred thousand pounds sterling; and all by this sugar plant.[70]

England, its appetite whetted by the wealth of Barbadian sugar, cast its eyes on other Caribbean islands. There was now no avoiding conflict with Spain, which had long occupied the choicest Caribbean real estate. The English finally settled on Jamaica, twenty-six times the size of Barbados. By 1655, the larger island had been raided and its cities burned by both pirates and English regulars on several occasions. In that year, British soldiers invaded it (under the direction of Admiral William Penn, father of Pennsylvania's founder), and by 1658 they had driven out the last Spaniards. From that moment, the British strove to make Jamaica their sugar pantry, at one point drawing one third of the African slave traffic.[71]

Barbados's heyday was relatively short-lived. After 1680, falling sugar prices, English tariffs, and depleted soil and forests ruined its plantations, and many planters fled to greener pastures in the New World. Modyford, for example, already one of the world's wealthiest men, went to Jamaica, where he became governor. Others returned as estate holders to England, where they became the prototypical nouveau riche of the eighteenth century, portrayed endlessly in the literature of the period. Yet another group went to an even larger and more promising venue: what is now South Carolina, where they re-created the plantation society they had left behind on the island. This Barbadian heritage manifested itself in the most slave-intensive society on the North American continent, and in a political style that centuries later yielded Fort Sumter and Strom Thurmond.[72]

The Portuguese, English, and Dutch operating "beyond the line" in the New World were to become three of the largest consumers of slave labor in the history of mankind. This was an unplanned and unforeseen fallout of the logistics of the plantation economy.

Growing cane requires vast amounts of manpower, which the European homelands could not supply. As the historian Richard S. Dunn described events in the British Caribbean: "The rape's progress was fatally easy: from exploiting the English laboring poor to abusing colonial bondservants to ensnaring kidnaps and convicts to enslaving black Africans."[73]

The first workers in the cane fields of the English Caribbean were white freemen, but by the late seventeenth century almost one-third of the field hands were prisoners.[74] It was not unheard of for youths to be kidnapped (or "barbadosed," a term analogous to the more modern "shanghaied") off the streets of Bristol or Liverpool to work in the cane fields. Even when available, English laborers were often surly and uncooperative; in the best of circumstances they remained on the plantation for only a few years before their indenture, their contracts, their prison terms, their patience, or their lives expired. A more permanent solution was needed.

Sometime around 1640, a group of Barbadian planters visited Dutch plantations in Brazil and were mightily impressed with the advantages of black slave labor. Africans had for millennia been accomplished farmers; not only were they skilled with plow and hoe, but they were also, unlike the English, well used to the heat and resistant to the great killers of the sugar islands—yellow fever and malaria. Best of all, they were cheap in comparison with free English labor, in terms of both initial price and upkeep. After 1660, plantation crews consisting of scores, and then hundreds, of Africans became the norm.[75]



Initially, the Portuguese, who were familiar with the West African coastline, supplied British needs in the Caribbean, but soon Englishmen entered the trade. Just four months after the restoration of the monarchy in 1660, and in the tradition of the time, Charles II established a monopoly company, jauntily named the "Royal Adventurers into Africa," to deal in African trade. Its shareholders included most of the royal family, Lord Sandwich, and Lord Ashley, who, in one of history's more delicious ideological ironies, was the philosopher John Locke's principal patron and protector. The Company concerned itself mainly with Africa's major export, gold, but also delivered several thousand slaves to Barbados.

The chronically mismanaged Adventurers were disbanded in 1672 and replaced with a far more formidable monopoly organization—the Royal African Company (RAC). This time, perhaps tipped off by Ashley about the profitability of traffic in slaves, Locke himself became a minor shareholder. A creature of the monarchy, the RAC did not fare well after the Glorious Revolution of 1688 and lost its monopoly a decade later. (With monopolies, timing is everything, and the RAC's was not good; Charles II had granted it the exclusive right to trade with Africa for a thousand years.) After it lost its slaving monopoly, the RAC did collect a one-tenth royalty on sales by independent slavers—"ten percenters," as they were known. Before the RAC faded into obscurity in the seventeenth century, it had shipped 75,000 slaves across the Atlantic. Of this number, about one in six did not survive the journey. (The death rate was almost certainly higher among the white crew members, who were not only more susceptible to tropical disease than the slaves but also less expensive to replace).[76]

Millions more would follow. Even in the absence of religious and cultural strictures against slavery, it is difficult and expensive to hunt, capture, and transport human beings; the majority of black slaves initially fell into the hands of opposing tribal armies, not slave traders. The Europeans' susceptibility to infectious diseases dictated a minimal white presence on the African slave coasts, limited to visiting crews and a few permanent agents, whose primary expertise lay in plying local rulers with gifts and bribes of all descriptions.

Since the local inhabitants of the slaving ports would not countenance such inhuman treatment of their ethnic brethren, the captives themselves had usually passed through several hands before reaching the coast in order to ensure that they were of different tribal origin from their final African jailers. Until well into the nineteenth century, the Portuguese, English, Dutch, and French remained largely unaware of just how their human cargoes had been acquired, and often of their precise geographic origin. Even had they wanted to capture the slaves themselves, Europeans could not have survived long enough to do so. The RAC's records show that 60 percent of its personnel in Africa died in the first year and 80 percent by the seventh year, and that only one in ten was discharged alive from company service.[77] One of the most prominent historians of slavery, David Brion Davis, points out:

> There has long been a widespread mythology claiming that Europeans were the ones who physically enslaved Africans—as if small groups of sailors, who were highly vulnerable to tropical diseases and who had no supply lines to their homelands, could kidnap some eleven to twelve million Africans.[78]

Just how did Europeans pay for their slaves? Largely in cloth. The RAC's records show that in the late 1600s, nearly three-quarters of the value of trade goods bound for Africa were in textiles, mostly of English manufacture, but with a considerable fraction of Indian calicoes as well. The non-textile items consisted mainly of raw iron, firearms, and cowrie shells.[79]

After exchanging trade goods for captives, the Europeans continued the barbarity. Each captive was allotted approximately four square feet of shipboard space—about the same as the space per passenger on a packed subway car or commercial airliner, but minus elemental sanitation, ventilation, or relief from a sweltering environment, and not for minutes or hours, but for weeks. Even in the best of circumstances—that is, in the absence of the epidemic diseases that almost always swept the



slave holds—the captives were packed together spoon-style in pools of their own waste. Add to this miasma gastrointestinal illnesses and festering open sores from chains and immobility, and the circumstances on transatlantic slavers soon exceeded the bounds of human imagination. Testimony to Parliament from an officer on one ship, the *Alexander*, revealed that:

> When employed in stowing the slaves, he made the most of the room and wedged them in. They had not so much room as a man in his coffin, either in length or in breadth. It was impossible for them to turn or shift. . . . He says he cannot conceive of any situation so dreadful and disgusting as that of the slaves when ill of the flux: in the *Alexander*, the deck was covered with blood and mucus, and resembled a slaughterhouse. The stench and foul air were intolerable.[80]

Few subjects carry the emotional freight of the slave trade, and until very recently most of the approximations of its volume, nationality, and mortality reflected the ideological needs of the estimators more than objective reality. Only after 1950 did the subject become an object of serious historical inquiry, as scholars such as Philip Curtin and David Eltis strove to obtain a meaningful and accurate census of the trade.

The picture their data draw is stunning.[81] Between 1519 and the end of the slave trade in the late 1860s, 9.5 million African slaves arrived in the New World; Figure 10-2 plots the annual transatlantic traffic. Since the best estimates of mortality on the middle passage are around 15 percent, this means that eleven million captives began the journey in Africa.

The majority of the 9.5 million who survived the middle passage cut, crushed, and boiled cane.[82] Fully 80 percent of slaves came to Brazil and the Caribbean, while most of the rest went to Spanish North America and South America. So massive was this involuntary migration that as early as 1580, slaves constituted well over half of voyagers to the New World; by 1700, three-quarters; and by 1820, 90 percent. Truly, the settlement of the Americas would not have been possible without black slaves, who constituted fully 77 percent of those who crossed the Atlantic before 1820.[83] Only after the mid-nineteenth century, when the institution was finally outlawed, did the majority of immigrants have white skin.

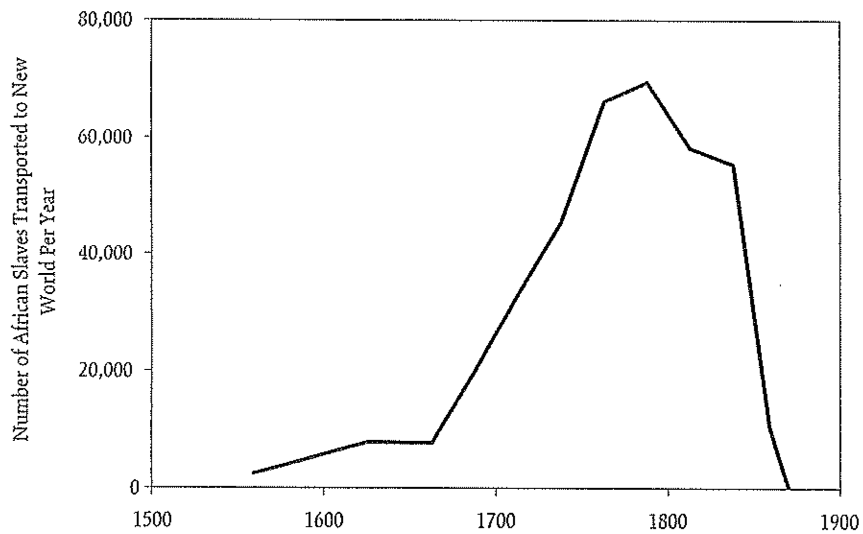



**Figure 10-2.** Annual Transatlantic Slave Trade

Surprisingly, only about four hundred thousand—about 4.5 percent—came to the British North American colonies. Table 10-1, which summarizes the proportions of slaves arriving in the New World according to destination and the proportions of their descendants living there in 1950, lays out the puzzle. First, note that in spite of the fact that the United States and Canada received fewer than one slave in twenty, these two nations now contain nearly one in three of their descendants. The opposite pattern holds for the Caribbean, which received over two-fifths of the slaves, but now contains just one-fifth of their descendants, suggesting that it was difficult to maintain the slave population in the islands.

How did the slaves manage to increase their numbers in Canada and the United States? The answer is that sugar is the deadliest of crops, and for the most part British North America did not grow it. The cutting, grinding, and boiling meant overwork and an early death for millions of Africans—most of them men, since vigorous males were the import of choice on the plantations. Nothing like the sugar islands, as exemplified by Barbados, Jamaica, the Windwards and Leewards, and Saint-Domingue, had ever been seen before, and hopefully nothing like them will ever be seen again. These societies were peopled almost en-



**Table 10-1.** Proportions of New-World Slave Imports between 1500 and 1880, and Their Descendant Populations in 1950.

| | Proportion of Slaves Imported into New World between 1500 and 1880 | Proportion of New-World African Descendants in 1950 |
|---|---|---|
| U.S. and Canada | 4.5% | 31.1% |
| Mexico and Central America | 2.4% | 0.7% |
| Caribbean Islands | 43.0% | 20.0% |
| Brazil | 38.2% | 36.6% |
| Other South America | 11.8% | 11.6% |

tirely by black Africans and largely devoted to producing one commodity. The sugar islands thus depended on the importation of food and most other essential items. So ravaged by overwork, malnutrition, and disease were their slave workforces that a constant stream of fresh humanity was required merely to keep their numbers level.

This was not the bondage of the household or harem slave of the Middle East, who was often treated as a member of the family and allowed to conduct business; nor of the mamluk, who could gain manumission, and even rise to power, through conversion and service. Rather, it was an unrelenting hell of hot, killing work in fields and factories under the hour-by-hour and minute-by-minute supervision of gang bosses.[84]

The "grinding season" proved especially deadly. Since cane juice goes sour unless crushed and boiled within twenty-four hours of cutting, the production sequence had to be condensed into round-the-clock shifts of backbreaking work in the fields, at the three-cylinder mills, and in the inferno-like boiler rooms. This put robust male slaves at a premium, and that in turn meant a relative deficiency of women in the islands. A reduced birthrate naturally followed, not merely because there were fewer females, but also because of the social instability resulting from this imbalance. Further, plantation owners had no use for slave children, since they would have to be fed for more than a decade before they yielded economic benefit; it was better to import healthy young males, who could be bought for three or four years' upkeep. Slave children were so undesirable that an infant sold for one-twentieth to one-tenth the price of an adult.[85]

Death on the plantation was sugar's constant companion, and those colonies that relied most heavily on cane had the most trouble maintaining their slave populations. The black population of British North America, which grew little cane, increased nearly as fast as the white population. The one exception to the pattern of lower mortality among slaves in North America was found in the southernmost parishes of Louisiana, one of the few places on the continent that grew cane. Conversely, one exception to the high mortality among slaves in Brazil was found in the province of Minas Gerais, which was more dependent on "easier" labor: coffee and dairy production.[86]

The deadly face of "sugar demographics" is easily seen today in the cultural differences between the black population in the United States and Canada and that in the rest of the hemisphere. British North America, because of its vigorous population growth, required ever-smaller infusions of African slaves. After 1800, the relatively high fertility and low death rates among slaves in the United States meant that southern plantation owners simply did not need to import more Africans. The American prohibition of the slave trade in 1808 easily passed through the southern-dominated Congress for just this reason: the Americans' abolition of the slave trade crippled their Caribbean and Brazilian competitors. By 1808, almost all North American slaves were native-born, and by the Civil War, relatively little cultural memory of Africa remained.[87] The Caribbean islands and Brazil, on the other hand, required a constant flow of Africans; well into the twentieth century, the Yoruba language flourished in Cuba, the last bastion of the New World plantation society, and African influences still pervade Caribbean culture.

The transatlantic commerce of the seventeenth through nineteenth centuries—coffee, cotton, sugar, rum, and tobacco from the New World to Europe; manufactured goods, particularly textiles, from Europe to Africa; and slaves from Africa to the New World—has been described as the "triangular trade pattern" and taught to most schoolchildren. This oversimplified picture neglects the real-world reality of shorter hauls. An English ship might carry indigo from Jamaica to Philadelphia, then corn from there to London, then wool cloth from there to Le Havre, then French silks to Africa's slave coast, and so on.



In the East, things did not run as smoothly. Even though Britons might have been crazy for calicoes and besotted by tea, it was more difficult to find trade goods to exchange for them, particularly with the self-sufficient and self-satisfied Chinese. A more even-flowing system, similar to that achieved in the Atlantic, was needed. Just as the slave-trade arm of the Atlantic triangle poisoned race relations for centuries thereafter, so would the inequities of the nineteenth-century India and China trades profoundly affect East-West relations to the present day.