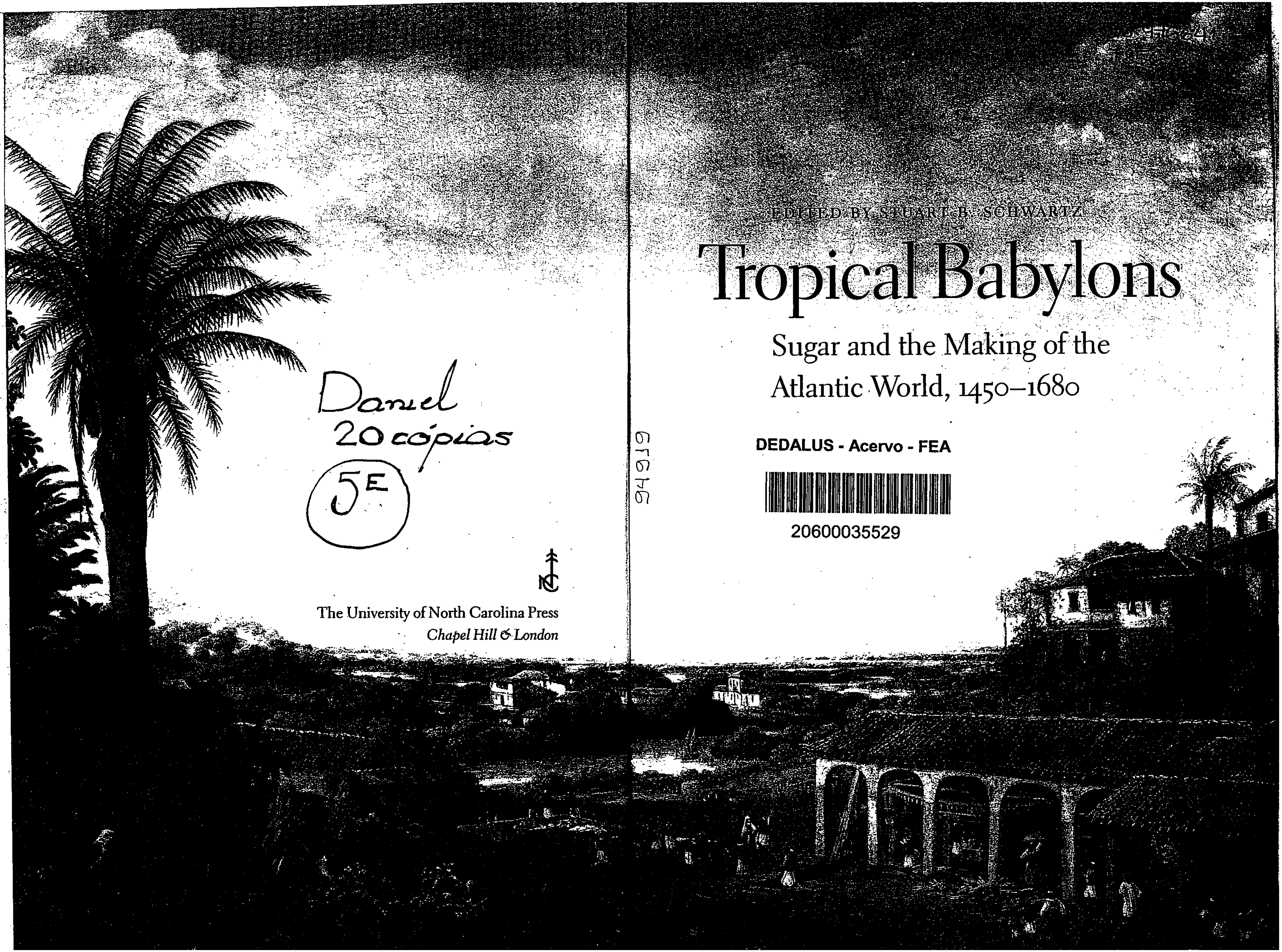

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# Tropical Babylons

## Sugar and the Making of the Atlantic World, 1450–1680

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CHAPTER SEVEN

# The Atlantic Slave Trade to 1650

*Herbert Klein*

The forced migration of Africans in the Atlantic slave trade is traditionally associated with the rise of sugar production in the Old and New Worlds. But, in fact, the slave trade evolved independently of the expansion of the sugar economy. For the first 160 years, the Atlantic boat trade in African slaves was correlated with a host of different factors, from the use of Africans in domestic slavery in Europe and Spanish America, to the evolution of sugar and other products for the European market in the Atlantic islands and America. It is only after 1600 that the movement of Africans across the Atlantic became so intimately tied to the expansion of American sugar production. Moreover, until 1700, Africa earned more from the exportation of gold, ivory, and pepper than it did from slaves.

Though of limited importance, slavery still existed in Europe in 1492. Like almost all complex societies in world history until that time, the nations of Europe had known slaves, and slavery in earlier centuries had been a fundamental labor institution. From the sixth century B.C. until the eighth century A.D., under the Greek city-states and the Roman Empire slave labor had been almost as important as peasant labor in the production of goods for local and long distance markets. Under the Islamic states of the Mediterranean world from the eighth century onward, slavery also had been important, though less tied to production and more associated with the state and private household economies. But in fifteenth-century Christian Europe, as in most such societies, slavery was primarily domestic slavery, which meant that the labor power of the household was extended through the use of these workers.

Equally, slavery existed in the African continent from recorded times. But like Medieval Christian Europe, it was a relatively minor institution in the period before the opening up of the Atlantic slave trade. It could be found as a domestic institution in most of the region's more complex societies, and a few exceptional states may have developed more industrial forms of slave production. But African slaves were to be found outside the region as well. With no all-embracing religious or political unity, the numerous states of Africa were free to buy and sell slaves and to even export them to North African areas. Caravan routes across the Sahara had existed from recorded times, and slaves formed a part of Africa's export trade to the Mediterranean from pre-Roman to the modern times. But a new dimension to that trade occurred with the expansion of Islam in the eighth century. As the Islamic world spread into India and the Eastern Mediterranean, Islamic merchants came to play an ever more important part in the African slave trade. The frontier zones of the sub-Saharan savannas, the Red Sea region, and the East Coast ports on the Indian Ocean, in turn, became major centers for the expansion of Moslem influence. From the ninth to the fifteenth century, a rather steady international slave trade occurred, with the majority of forced migrants being women and children. Some six major and often interlocking caravan routes and another two major coastal regions may have accounted for as many as 5,000 to 10,000 slaves per annum in the period from 800 to 1600 A.D., accounting for anywhere from 3.5 to 10 million Africans who left their homelands.[1]

There also existed an internal slave trade. Given the use of slaves for domestic and social purposes within Africa, the stress in the internal slave trade was even more biased toward women. For both these long-term trades, the whole complex of enslavement practices, from full-scale warfare and raiding of enemies to judicial enslavement and taxation of dependent peoples, had come into use and would easily be adjusted to the needs of the Atlantic slave trade when this came into existence in the early fifteenth century. Although the number of persons who were forcibly transported was impressive, these pre-1500 northern and eastern African slave trades still fit in with a level of production and social and political organization in which slave trading remained an incidental part of statecraft and economic organization.

The arrival of the Portuguese explorers and traders on the sub-Saharan African coast in the early 1400s would ultimately represent a new development in the history of the slave trade in Africa in terms of the intensity of its development, the sources of its slaves, and the uses to which these slaves would be put. But initially there was little to distinguish the Portuguese traders from the Moslem traders of North Africa and the sub-Saharan regions. Portuguese interest was initially directed toward subverting the North African Saharan routes by opening up a route from the sea. Their prime interest was gold, with slaves, pepper, ivory, and other products as only secondary concerns. Even when they began shipping slaves in the early 1440s, they were mainly sent to Europe to serve as domestic



servants. Africans had already arrived at these destinations via the overland Muslim controlled caravan routes, and thus the new trade was primarily an extension of the older patterns. The Portuguese even carried out extensive slave trading along the African coast, primarily to supply the internal African slave market in exchange for gold, which they then exported to Europe. Major imports in the early Portuguese trade to the Gold Coast were North African dyed cloths and copper ingots and bracelets, all items that local consumers and smiths had often purchased from Moslem sources.[2] It was the volume of these goods that was new to these the local markets, not the goods themselves. Thus the major impact of the coming of the Europeans to Africa was the addition of new trading routes rather than strange or exotic products. Whereas the Niger River, flowing mostly north toward the Sahara, had been the great connective link for the peoples of West Africa until then, now the Senegal, Gambia, and other local rivers running west and south toward the Atlantic coasts became major links to the outside world. So intense and widespread did this trading become over most of West Africa that the Portuguese language quickly became the basis of a trading patois that was spoken throughout the region.

Just as the beginnings of the Portuguese slave trade had complemented a traditional trading system, the first use of Atlantic slave trade Africans by Europeans was in traditional activities. For the first half of the century, the European slave ships that cruised the Atlantic shoreline of Africa carried their slaves to the Iberian peninsula. The ports of Lisbon and Seville were the centers for a thriving trade in African slaves, and from these centers slaves were distributed rather widely through the Western Mediterranean. Though Africans quickly became the dominant group within the polyglot slave communities in the major cities of the region, they never became the dominant labor force in the local economies. Africans were used no differently than the Moorish slaves who preceded and coexisted with them, and were to be found primarily in urban centers, and worked mostly in domestic service, and even the wealthiest European masters owned only a few slaves. Probably the largest such concentration of urban slaves was found in Lisbon, which by the 1630s had an estimated 15,000 slaves out of a total urban population of 100,000 persons and an established community of some 2,000 free colored.[3] But Seville also had a significant number, for in 1565 there were 5,327 slaves out of a population of 85,538 and most of these were Africans.[4]

But the major importer of African slaves would not be Europe itself. Just as Portugal was opening up the African coast to European penetration, its explorers and sailors were competing with the Spaniards in colonizing the Eastern Atlantic islands. By the 1450s, the Portuguese were developing the unpopulated

Azores, Madeira, the Cape Verde Islands, and São Tomé, while the Spaniards were conquering the previously inhabited Canary Islands by the last decade of the century. Sugar became the prime output on Madeira Island by the middle of the fifteenth century, and by the end of the century was Europe's largest producer.[5] The Cabo Verde islands also became a center for African slave activity as well as a minor entrepot in the developing Atlantic slave trade.[6] But it was the island of São Tomé, in the Gulf of Guinea, that most exclusively tied African slave labor to sugar. In terms of plantation size, the universality of slave labor, and production techniques, this was the Atlantic island closest to what would become the American norm. By the 1550s there were some sixty mills in operation on the island producing over 2,000 tons per annum and some 5,000 to 6,000 plantation slaves, all of whom were Africans. Eventually American competition, Dutch invasions, and a series of major African slave revolts destroyed the local sugar industry.[7]

Given the high costs of attracting free European labor across the Atlantic and the ultimate abandonment of American Indian slavery even by the Portuguese, it was African slave labor that would sustain the agricultural export industries created in America. In the central provinces of the Spanish American empire, with their dense settled Indian peasant populations—above all Peru and New Spain (Mexico)—the need for European or African laborers was relatively limited. But even here, European diseases decimated Indian populations, especially along the coasts, and the lack of a poor white migration created a need for skilled and unskilled urban workers. With an excellent supply of precious metals, and a positive trade balance with Europe, the Spaniards of America could afford to experiment with the importation of African slaves to fill in the regions abandoned by Amerindian laborers. They found African slaves useful for the very reasons that they were kinless and totally mobile laborers. Indians could be exploited systematically but they could not be moved from their lands on a permanent basis. Being the dominant cultural group, they were also relatively impervious to Spanish and European norms of behavior. The Africans, in contrast, came from multiple linguistic groups and had only the European languages in common and were therefore forced to adopt themselves to the European norms. African slaves, in lieu of a cheap pool of European laborers, thus added important strength to the small European urban society that dominated the American Indian peasant masses.

The northern Europeans who followed the Iberians to America within a few decades of the discovery had even fewer Indians to exploit than the Portuguese and were unable to develop an extensive Indian slave labor force, let alone the complex free Indian labor arrangements developed by the Spaniards. Nor did



they have access to precious metals to pay for imported slave labor. Unlike the Iberians of the sixteenth century, however, they did have a cheaper and more willing pool of European laborers to exploit, especially in the crisis period of the seventeenth century. But even with this European labor available, peasants and the urban poor could not afford the passage to America. Paying for that passage through selling one's labor to American employers in indentured contracts thus became the major form of colonization in the first half-century of northern European settlement in America. The English and the French were the primary users of indentured labor, helped by a pool of workers faced by low wages within the European economy. But the end of the seventeenth-century crisis in Europe, and especially the rapid growth of the English economy in the last quarter of the century, brought a thriving labor market in Europe and a consequent increase in the costs of indentured laborers. With their European indentured laborers becoming too costly, and with no access to American Indian workers or slaves, it was inevitable that the English and the French would also turn to African slaves, especially as they discovered that sugar was one of the few crops that could profitably be exported to the European market on a mass scale.

That Africans were the cheapest available slaves at this time was due to the opening up of the West African coast by the Portuguese. Given the steady export of West African gold and ivory, and the development of Portugal's enormous Asiatic trading empire, the commercial relations between western Africa and Europe now became common and cheap. Western Africans brought by sea had already replaced all other ethnic and religious groups in the European slave markets by the sixteenth century. Although Iberians initially enslaved Canary Islanders, these were later freed as were the few Indians who were brought from America. Moslems who had been enslaved for centuries were no longer significant as they disappeared from the Iberian peninsula itself and became powerfully united under independent states of North Africa. The dominance of the Turks in the Eastern Mediterranean also closed off traditional Slavic and Balkan sources for slaves. Given the growing efficiency of the Atlantic slave traders, the dependability of African slave supply, and the stability of prices, it would be Africans who would come to be defined almost exclusively as the available slave labor of the sixteenth century.

Although the relative importance of African slaves was reduced within Spanish America in the sixteenth and seventeenth centuries, African migration to these regions was not insignificant and began with the first conquests. Cortés and his various armies held several hundred slaves when they conquered Mexico in the 1520s, while over a thousand African slaves appeared in the armies of Pizarro and Almagro in their conquest of Peru in the 1530s, and in their subsequent civil wars in the 1540s. Although Indians dominated rural life everywhere, Spaniards found their need for slaves constantly increasing. This was especially true in Peru, which was initially both richer and lost a progressively higher proportion of its coastal populations to European diseases in areas that were ideal for such European crops as sugar and grapes. Already by the mid-1550s there were some 3,000 African slaves in Peruvian viceroyalty, half in the city of Lima. This same balance between urban and rural residence, in fact, marked slaves along with Spaniards as the most urban elements in Spanish American society.[8]

The needs for slaves within the Peruvian viceroyalty increased dramatically in the second half of the sixteenth century as Potosí silver production came into full development, making Peru and its premier city of Lima the wealthiest zone of the New World. To meet this demand for Africans a major slave trade developed, especially after the unification of the Portuguese and Spanish Crowns from 1580 to 1640 gave the Portuguese access to Spanish American markets. Initially most of the Africans came from the Senegambia region between the Senegal and Niger Rivers, but after the development of Portuguese Luanda in the 1570s important contingents of slaves from the Congo and Angola began arriving.

Though a major component of urban population and the dominant workers in gold mining, some African slaves were also used in agriculture. To serve such new cities as Lima, Spaniards developed major truck farming in the outskirts of the city that were worked by small families of slaves. Even more ambitious agricultural activity occurred up and down the coast in specialized sugar estates, vineyards, and more mixed agricultural enterprises. In contrast to the West Indian and Brazilian experience, the slave plantations of Peru were likely to be mixed crop producers. On average the plantations of the irrigated coastal valleys, especially those to the South of Lima, had around forty slaves per unit. The major wine and sugar producing zones of the seventeenth century, such as Pisco, the Condor, and Ica Valleys, contained some 20,000 slaves. In the interior, there were also several tropical valleys where slave estates specializing in sugar could be found.[9]

But it was in all the cities of the Spanish continental empire that the slaves played their most active economic role. In the skilled trades, they predominated in metalworking, clothing, and construction and supplies, and were well represented in all the crafts except the most exclusive, such as silversmithing and printing. In semi-skilled labor they were heavily involved in coastal fishing, as porters and vendors, in food handling and processing, and were even found as armed watchmen in the local Lima police force. Every major construction site found skilled and unskilled slaves working alongside white masters and free



blacks of all categories as well as Indian laborers. They also predominated in the semi-skilled and unskilled urban occupations, from employment in tanning works, slaughter houses, and even hat factories to being the dominant servant classes. All government and religious institutions, charities, hospitals, and monasteries had their contingent of half a dozen or more slaves who were the basic maintenance workers for these large establishments.[10]

As the city of Lima grew, so did its slave and free population and by 1640 there were an estimated 20,000 colored persons in the city and about 40,000 persons of African descent in the colony.[11] This growth was initially faster than the white and Indian participation in the city, and by the last decade of the sixteenth century Lima was half black and would stay that way for most of the seventeenth century. Equally, all the northern and central Andean coastal and interior cities had black populations so that by 1600 they accounted for half their total populations. As one moved further south into the more densely populated Indian areas their relative percentage dropped, though black slaves could be found in the thousands in Cuzco, and even the interior city of Potosí, which was dominated by Indian workers, was estimated to have some 6,000 blacks and mulattos, both slave and free, in 1611.[12]

African slaves in the viceroyalty of Mexico were also to be found from the first moments in the armies, farms, and houses of the Spanish conquerors. As in Peru, the first generation of slaves probably numbered close to the total number of whites. They were also drawn heavily into the local sugar and European commercial crop production in the warmer lowland regions, which were widely scattered in the central zone of the viceroyalty. Also, given the discovery of silver in the northern regions of the viceroyalty where there were few settled Indians, Africans were even initially used in silver mining. In a mine census of 1570, 45 percent of the laboring population comprised some 3,700 Africans slaves, double the number of Spaniards, and just a few hundred fewer than the Indians.[13] But the increasing availability of free Indian wage labor lessened the need for more expensive African slave labor, and they disappeared from the mines by the end of the century. Given the more extensive Indian population in Mexico, Africans were used less than in Peru and their relative importance declined over time. Though slaves performed many of the same urban tasks in Mexico City as they did in Lima, the former was essentially an Indian and mestizo town and slaves never achieved the same importance in the labor force.[14]

The relative significance of Mexican slavery was well reflected in the growth of its slave population, which peaked at some 35,000 slaves by 1646 when they represented less than 2 percent of the viceregal population.[15] In contrast, the number of slaves within Peru had reached close to 100,000 by mid-century, where they accounted for between 10 and 15 percent of the population. By 1650, Spanish America, meaning primarily Peru and Mexico, had imported some 250,000 to 300,000 slaves, a record that they would not repeat in the next century of colonial growth.

The major demand for African slaves, after 1600, came from Portuguese America and the marginal lands that the Spaniards had previously neglected, above the lesser islands of the Caribbean. With no stable Indian peasant populations to exploit, and few alternative exports in the form of precious metals, successful colonization in these zones required the export of products that Europe could consume, which would eventually lead to sugar production and the massive use of African slave labor. The first to develop the plantation slave model were the Portuguese, who took possession of the eastern coastline of South America in the early sixteenth century. First relying on Indian slave labor to produce sugar, by the mid 1580s Pernambuco alone reported 2,000 African slaves, composing one-third of the captaincy's sugar labor force.[16] With each succeeding decade the percentage of Africans in the slave population increased. By 1630 some 170,000 Africans had arrived in the colony and sugar was now predominantly a black slave crop. The early decades of the seventeenth century would prove to be the peak years of Brazil's dominance on the European sugar market, and it was this very sugar production monopoly that excited the envy of other European powers and led to the rise of alternative production centers.

It was the Dutch who opened up much of this world to slave trading. Initially they were Brazil's major commercial link with northern Europe before turning hostile after the beginning of their wars for independence in the 1590s. As early as 1602 they established the East Indies company to seize control of Portugal's Asian trade, followed in 1621 by the West Indies company organized to take Portugal's African and American possessions. The Dutch West Indies Company finally captured and held Recife and its interior province of Pernambuco in 1630. They next captured Portugal's African possessions: first the fortress of Elmina on the Gold Coast in 1638, and then Luanda and most of the Angolan region in 1641.

These conquests profoundly affected the subsequent history of sugar production and African slavery in America. For Brazil, the Dutch occupation resulted in Bahia replacing Pernambuco as the leading slave and sugar province, in the reemergence of Indian slavery to replace the African slaves lost to the Dutch; and in the ensuing Indian slave trade opening up the interior regions of Brazil to exploitation and settlement. For the rest of America, Dutch Brazil would become a major source for the tools, techniques, credit, and slaves that would carry



the sugar revolution and its slave labor system into the West Indies, especially after the fall of Dutch Pernambuco in 1654.

The opening of the Lesser Antillean islands and the northeastern coast of South America to northern European colonization represented the first systematic challenge to Iberian control of the New World. By 1650, the English had 44,000 whites on their West Indian islands (compared to 53,000 in the settlements of New England),[17] while the French islands of Martinique and Guadeloupe held 15,000 white settlers by the end of the 1650s. At mid-century, tobacco and indigo were the primary exports from these islands, and though slaves were present from the beginning, they were still outnumbered by the whites. The Dutch assistance finally made sugar a far more viable proposition, especially as the opening up of Virginia tobacco production led to a crisis in European tobacco prices.

The transformation that sugar created in the West Indies was truly impressive. The experience of Barbados, the first of the big production islands, was typical. On the eve of the introduction of sugar in 1645, there were only 5,680 African slaves. By 1680 there were over 38,000. At this point Barbados was both the most populous and the wealthiest of England's American colonies and averaged some 265 slaves per square mile, compared to less than 2 slaves per square mile in the island of Jamaica, which had been captured from the Spanish in 1655.[18] The slave ships were bringing in over 1,300 Africans per annum to Barbados and by the end of the century this tiny island contained over 50,000 slaves.[19] That model was quickly replicated by the French. As of 1670 Martinique, Guadeloupe, St. Christopher, and the recently settled western half of the island of Santo Domingo were all producing sugar. By the early 1680s these islands, including Santo Domingo, contained over 18,000 slaves.[20]

The growth of West Indian slavery led to these powers entering directly into the transportation of African slaves in their own ships. But initially it was the Portuguese who dominated this trade and were quick to develop these new trade routes. In the 1450s they obtained exclusive Christian rights from the Pope for dealing with Africa south of Cape Bojador. In 1466 they settled the island of Santiago in the Cape Verde islands; in 1482 they built the fort of São Jorge da Mina (Elmina in present-day Ghana); by 1483 they were in contact with the kingdom of the Kongo just south of the Congo River in Central Africa; in 1493 they had definitely settled the island of São Tomé in the Gulf of Guinea; and by 1505 they had constructed the fort of Sofala on the Mozambique coast of East Africa.

At first the Portuguese treated their African contacts as they had the North Africans they encountered. They raided and attempted to forcibly take slaves and plunder along the coast they visited. Thus when they landed at Rio de Oro, just south of Cape Bojador, in 1441 they seized several Berbers along with one of their black slaves. In 1443 a caravel returned to the same Idzãgen Berbers to exchange two aristocratic members of the group for gold and ten black slaves. In 1444 and 1445 merchants and nobles of the Algarve outfitted two major expeditions against the Idzãgen; the first brought back 235 Berber and black slaves who were sold in Lagos. Thus began the Atlantic slave trade.

Not only did the second and later expedition encounter serious hostility from the now-prepared Berbers, but attempts to seize slaves directly from the black states on the Windward coast ended in military defeat for the Portuguese. The result was that the Portuguese moved from a raiding style to peaceful trade, which was welcomed by Berber and African alike. In 1445 came the first peaceful trade with the Idzãgen Berbers at Rio de Oro in which European goods were exchanged for African slaves. Trade with the Idzãgen led to the settlement of a trading post (called a "factory") at Arguim Island off the Mauritanian coast; and after 1448 direct trade began for slaves and gold with the sub-Saharan West African states.[21]

As long as the Portuguese concentrated their efforts in the regions of Mauritania, Senegambia, and the Gold Coast, they essentially integrated themselves into the existing network of North African Muslim traders. The Moslems had brought these coasts into their own trade networks and the Portuguese tapped into them through navigable rivers that went into the interior, especially the Senegal and Gambia Rivers, or through the establishment of coastal or offshore trading posts: Arguim Island, the Cape Verde islands off the Senegambia coast, and the Guinean Gulf islands of São Tomé and Príncipe. Even their establishment of São Jorge da Mina (Elmina) on the Gold Coast, in 1481, fit into these developments. Although Portuguese slave trading started slowly at about 800 slaves taken per annum in the 1450s and 1460s, it grew close to 1,500 in the next two decades and to over 2,000 per annum in the 1480s and 1490s, about a third of whom were sold to Africans themselves in exchange for gold.[22]

But a major structural change occurred after 1500; with a combination of the effective settlement of the island depot and plantation center of São Tomé in the Gulf of Guinea and the beginning of intense trade relations with the kingdom of the Kongo after 1512, which brought West-Central Africa into the Atlantic slave trade in a major way for the first time. The Kongolese were located by the Congo River and were unconnected to the Moslem trade before the arrival of the Portuguese. The kingdom also sought close relations with the Portuguese and tried to work out government control of the trade. Portuguese sent priests and advisers to the court of the Kongolese king, and his representatives were placed on São Tomé. These changes occurred just as the Spanish conquest of the Caribbean islands and the Portuguese settlement of the Brazilian subcontinent was getting under way and thus opened the American market for African slaves.

All these changes found immediate response in the tremendous growth of the Portuguese slave trade. After 1500 the volume of the trade passed 2,600 slaves per annum, and after the 1530s these slaves were shipped directly to America from the entrepot island of São Tomé just off the African coast. This latter development marked a major shift in sources for African slaves for America. The acculturated and christianized blacks from the Iberian peninsular had been the first Africans forced to cross the Atlantic. Now it was non-Christian and non-Romance language speakers taken directly from Africa, the so-called *bozales*, who made up the overwhelming majority of slaves coming to America.

Another major change came about in the 1560s as a result of internal African developments. Hostile African invasions of the kingdom of the Kongo led to direct Portuguese military support for the regime and finally in 1576 to their establishment of a full-time settlement at the southern edge of the kingdom at the port of Luanda. With the development of Luanda came a decline in São Tomé as an entrepot, for now slaves were shipped directly to America from the mainland coast and from a region which was to provide America with the most slaves of any area of Africa over the next three centuries. By 1600, the Atlantic slave trade was finally to pass the northern and eastern African export trades in total volume,[23] though it was not until after 1700 that slaves finally surpassed in value all other exports from Africa.[24]

The Portuguese did not hesitate to conquer and evangelize. As early as the 1480s their agents had reached the Christian kingdom of Ethiopia in Eastern Africa, and by 1490 they sent an army to support a Christian pretender to the Jolof throne in Senegambia, which failed in its effort. In 1491 Christian missionaries were sent to the kingdom of the Kongo, south of the Zaire River, and there had more successes, even enthroning Affonso, a powerful leader, and a christianized African as head of the state in 1506. But within a generation the missionaries were expelled and the Kongo reverted to traditional religious beliefs. In 1514 they sent missionaries to the Oba of Benin, and this attempt ended in failure. Finally in their desire to control the Shona gold fields of East Africa, in 1569 they mounted an unsuccessful thousand-man expedition that included missionaries to expel the moslemized Swahili traders and christianize the local miners.

The only results of all these Portuguese efforts at penetration and conversion was the unintended one of the creation of a mixed Afro-Portuguese free merchant class that claimed Portuguese identity and adopted Catholicism, but rejected the sovereignty of the Portuguese state. Some of these communities not only occupied key settlements along the coast, but often penetrated deep into the interior. They colonized the Benguela highlands in Angola and even created mini-states with African followers and slave armies in the interior of Mozambique on their "estates" or *prazos*. This model, in turn, was followed to a lesser extent by the creation of local Afro-English and Afro-French merchant groups along the West African coast in the seventeenth and eighteenth centuries. In each case, these were racially mixed elites who intermarried with members of the local African establishments and were deeply involved with the regional African states and societies and who no longer obeyed the commands of the European states that had fostered them.

The Portuguese failures of colonization and christianizing brought the end to any thought of actual conquest and colonization in Africa as well. This forced acceptance of African autonomy was due to the difficulties of maintaining troops, missionaries, and bureaucrats in the African environment because of extraordinarily high European death rates, as well as the military balance that existed between Europeans and Africans. Respect for religious and political autonomy therefore became the norm in African-European dealings, and the Portuguese and those Europeans who followed them were even forced to deal with the many Moslem groups of the Western Sudan region in peace.

This does not mean that the coming of the Europeans to the coasts of Africa had little impact on internal African society and economy. But this impact varied depending on the nature of the local society and its previous contacts with the non-African world. In the region from Senegambia to the Cameroons, and in East Africa, it was less a revolutionary event than in the more isolated Central African regions of the Congo and Angola. The former regions had long-term international contacts with the Mediterranean and Middle Eastern worlds that were not severed by the new European boat trades. Even at their most intensive contact with the Gold Coast, Europeans took only a minority of the local output by sea, with a majority of the gold still crossing the Sahara. Nor was the political impact of the European arrival in this zone very profound. The slave trade initially was a minor movement of peoples with little influence over warfare or raiding. Thus the great Songhai empire in the Upper Niger region—the largest empire in West Africa—was weakened by the coming of the Europeans, but it was actually destroyed by a Moroccan invasion from across the desert. In 1591 a revived Moroccan state not only drove the Europeans out of most of its coastal cities and even killed one Portuguese king in doing so, but they headed south across the desert and seized Timbuktu from the Songhai. Equally, Swahili and Arabic traders had dominated the East African trade routes long before the arrival of the Portuguese, never fully controlling local gold exports.



As long as the slave trade remained small, which was the case through most of its earlier period, it had a relatively limited impact even on the internal African slave markets. Estimates of all the slave trades to 1600 suggest that the Atlantic slave trade took only a quarter of all slaves leaving Africa and was still considerably smaller than the trans-Saharan slave trade. It was only in the course of the seventeenth century that the Atlantic route forged ahead as the dominant slave trade, accounting for close to two-thirds of all Africans leaving the continent. At the end of the fifteenth century the Atlantic slave trade involved the shipment of no more than 800 to 2,000 slaves per annum, all of whom were being sent to Portugal or its Atlantic island possessions such as Madeira and São Tomé. Portuguese extraction of slaves was estimated to have risen to some 4,500 slaves per annum in the first decades of the sixteenth century as slave shipments to Spanish America had begun. This movement was still not that different in volume from the slave trade going across the Sahara or out of the Red Sea ports at this time. It was also of a far different dimension than the nearly 80,000 Africans per annum shipped to America at the height of the Atlantic slave trade in the 1780s.

Despite its still small volume compared to later developments, the Atlantic slave trade by the middle of the seventeenth century was one of the most complex economic enterprises known to the preindustrial world. It was the largest transoceanic migration in history up to that time; it promoted the transportation of people and goods among three different continents; it involved an annual fleet of several hundred ships; and it absorbed a very large amount of European capital. The trade was closely associated with the development of commercial export agriculture in America, and Asian trading with Europe. It involved complex and long-term credit arrangements in Europe and Africa and was carried on by a very large number of competing merchants in an unusually free market.

Given the high entry costs to trading, and the initial lack of detailed knowledge of the various African and American markets, the earliest period of the slave trade was one in which the state played a major role. Although slaves were shipped off the African coast by private European traders from the 1440s onward, the organization of an intensive slave trade took some time to develop. Although the Portuguese were rich enough to allow private contractors to develop some part of the early trade, both they and all the Europeans who followed used heavy state control in the form of taxation, subsidization, or monopoly contracts to get the trade going and control its flow of forced workers to America. In almost every case, the state was needed to subsidize the trade in order to get it organized. The Spaniards even declared it a royal monopoly and eventually developed a complex exclusive arrangement called the *asiento* for selling the right to deliver slaves, a system that lasted until the end of the eighteenth century. Though the Spanish contract holders subcontracted to private or foreign monopoly company firms, the trade was still heavily controlled by the state. Even the Portuguese finally resorted to state monopoly companies in the eighteenth century to get the trade going to colonies that were underdeveloped and lacked the capital to finance the trade.[25]

It was the relative ability of the American importing colonies to pay for their slaves that determined whether a slave trade could develop. In the case of Spain, it was the silver and gold mined by the Indians which would pay for the forced migration of African slaves. The trade was a very controlled one, but only for state taxing purposes, as private individuals from all over Europe were given exclusive contracts to carry slaves to the American colonies (the so-called *asiento*) in return for paying the Crown a fixed fee and taxes on each slave delivered. In the Portuguese case, their early dominant position in African trade gave them a decided advantage in the slave trade by lowering their costs of entry. In turn, the very rapid development of a sugar plantation economy based initially on American Indian slave labor in Brazil permitted them to generate the capital needed to import African slaves. But all other trades required some use of monopoly companies to get the system to provide slaves to American colonies that did not have the capital or credit to pay for the imported slaves.

From the fifteenth century until the early sixteenth century the Portuguese dominated the trade in gold, ivory, and slaves from Africa. By the early seventeenth century, between their own American needs and their supplying the Spanish American colonies, they were probably shipping some 3,000 to 4,000 slaves per annum. But this monopoly was challenged as early as the late sixteenth century by the French and the British. French and British free traders intermittently visited the African coast from the middle decades of the sixteenth century, but they and the Dutch did not become a major presence with forts and permanent trading links until the seventeenth century.

The costs of entry into the trade was so high, however, that only some kind of government support and a corresponding monopoly arrangement seemed capable of opening up a continuous and successful trade for these late-arriving Europeans. Using the model of the successful Dutch and English East Indies Companies, every slave trading nation but Spain and Portugal between 1620 and 1700 experimented with joint-stock monopoly trading companies. All succeeded in opening up systematic trade for the first time, but all would eventually fail and be replaced by free traders from their respective nations.



While French interlopers had involved themselves in the Atlantic slave trade from the early sixteenth century, serious French participation began only with the development of the monopoly trading companies in the second half of the seventeenth century. After many partial and incomplete attempts, the French finally organized their first monopoly company in 1664, and by 1672 the French government offered a bounty for every slave transported to the French West Indies. By the 1690s most of France's African trade was in the hands of private entrepreneurs, though it was not until the 1720s that free traders finally succeeded in definitively breaking the Company's control over trading.[26]

The Dutch West India Company was initially the most successful of these early monopoly companies, the one most involved in delivering slaves to colonies of the other European powers, and the one that shipped the most slaves to America. From its founding in 1621 it operated both as a commercial company and as a military organization with quasi statelike powers. It seized major territories from the Portuguese, produced sugar in Brazil, and became a major slave trader in the Gold Coast and Angola. It even made war on the Spaniards and succeeded in capturing one of the American silver fleets. But by the 1670s it was reduced to a few American possessions and to its Gold Coast forts, with the Portuguese having retaken most of their lost territories. Free trade in slaves was finally permitted in the 1730s. From the 1620s to the 1730s the company moved 286,000 slaves from Africa. It even held the Spanish *asiento* at one time, and from the seventeenth century until 1729 some 97,000 of the slaves that it shipped to America were delivered to the Spanish colonies.[27]

The English Royal African Company grew out of a series of earlier English monopoly companies and was put together in 1672. Like all such African adventures it was required to invest heavily in fixed costs, such as forts and armaments. The English probably started trading with Africa in the 1550s and tried some slave trading to the Spanish colonies in the 1560s, but they only established their first fort in Africa in the 1630s. From 1672 until 1713 the Royal African Company transported over 350,000 slaves to the English colonies. The company gave up its monopoly in 1698.[28]

The ultimate failure of all these monopoly companies was due to their high fixed costs in forts and ships and/or their obligations to deliver a fixed number of slaves into a given region no matter what the demand or the costs, obligations that were often too expensive to maintain. They usually tied up too much capital for too long a period and found it increasingly difficult to raise new funds. In the free trade era these companies were replaced in all trades by temporary associations of merchants who joined together to finance individual voyages. Thus merchants in the sending port committed their capital to relatively short periods and/or spread it over many different slaving voyages. Moreover, they delivered slaves only in the quantities demanded in the New World and to zones that were capable of paying for them with cash or exportable products that could be sold for a profit in Europe.

Although some formal joint stock companies were established, it was more common to form a trading company as a partnership of from two to five merchants. If it was two partners, both usually worked actively in the enterprise, but if it was more than this number there was usually an active partner who organized the expedition and a group of more or less passive partners. Interestingly, most of these associations engaged in other trades as well as that of slaves, indicating the diversification of risk of the entire transaction. The contract that the partners signed, or that founded the joint stock company, were usually for seven years, which was the time needed to completely close the books on a slaving expedition.

But given the high costs of entry into the trade, many of the partnerships or joint stock companies offered stock or shares in individual voyages that they financed. Thus while one of these slave-trading companies might undertake several voyages, each voyage attracted a different set of investors. The owner and outfitter of the ship (called an *armateur* in French) sold parts of the expedition and/or the ship to outside investors. In so doing he thus formed a mini-company that handled just that one expedition. Often these investors were other outfitters, and it was common for the principal company or association to itself invest as temporary shareholders in ships outfitted by other companies. The remaining shares in an expedition came from the Captain, who was allowed to invest on his own account.[29]

The actual purchase of the ship, collection of the cargo, and the arrangement of final papers and insurance typically took some four to six months to arrange. After the owners, the second most important person was the captain. Whether he bought shares or not, most captains were given 2 to 5 percent of the sale of all slaves he delivered in the Americas. Successful captains could obtain a respectable fortune in just two to three voyages. It was the captain who had the most responsibility, being both in charge of sailing the ship and of doing all the trading in Africa as well. But mortality of captains and crew was high, and though many carried out repeat voyages, there were great risks involved. Among the 186 Dutch captains employed by the Dutch West Indies Company in the seventeenth and early eighteenth centuries, the average was for 1.4 voyages per



captain, but this was highly concentrated since two-thirds of the captains made only one voyage. Moreover, crew and slave mortality were high, and something like 11 percent of the captains died in these early voyages.[30]

A large complement of subofficers and skilled persons were needed in the crew, with the three leading skilled persons being the ship's doctor, the carpenter, and the cooper or barrel maker. The first cared for and evaluated the health of the slaves. The carpenter designed the holds for the slaves when they were collected, and the cooper was in charge of the crucial water casks. The average French and Dutch slaver in the seventeenth and eighteenth centuries took from thirty to forty sailors for their crew, the majority of whom were poorly paid common seamen.[31] Between the needs of coastal trading in Africa and the potential for violence and the need for tight security on the African coast and in the Atlantic crossing, all slave traders carried double the number of crew that a normal merchant ship of their tonnage would carry. Moreover, these slave traders by the late seventeenth century were moving toward a norm of shipping a third to half the tonnage of a typical West Indian merchant vessel.

In all slave trades where the data are available on crews, tons, and slaves, there is the same high correlation between the numbers of slaves carried and the number of sailors manning the ships. Even where tonnage cannot be made comparable, there is the same difference seen between slavers and regular merchant ships. Thus for some twelve ships engaged in the slave trade to the Spanish Indies in 1637, the average of 7.7 slaves per sailor for these seventeenth-century Spanish American ships was quite similar to a sample of 525 French slavers from the first half of the eighteenth century, which carried 7.5 slaves per crewmen. Moreover, as was to be expected, in all the slave trades the number of slaves per crew kept increasing over time, reflecting an increasing efficiency of the slave ships, reaching the 9.5 range for almost 1,500 slavers in the second half of the eighteenth century.[32]

The biggest outfitting expense of these slaving voyages was always the cargo, which averaged between 55 and 65 percent of total costs. This made the slavers unique in almost all the major commodity trades. In France, which has the best data on costs, the cargo accounted for two-thirds of the total costs, and the ship and its crew a mere one-third. There was some variation depending on whether or not the ship was newly built. This explains why the average value of the outfitted slaver per ton was six times the average value per ton of the much larger direct-trade ships.[33]

The African consumer market was unusual in that all the Europeans had to import foreign goods to make up their cargoes. Top on the list were East Indian textiles that were made up of cotton cloths of white, or solid blue and/or printed design. Also from Asia came cowry shells produced in the Maldives archipelago, just off the southern coast of India. Important as well were armaments, which were sometimes produced at home, but often purchased abroad, and Swedish produced bar iron used by African blacksmiths to make local agricultural instruments. Knives, axes, swords, jewelry, gunpowder, and various national- and colonial-produced rums, brandies, and other liquors were also consumed along with Brazilian-grown tobacco. No one nation could produce all these goods, and over time purchases shifted from nation to nation. Early on the French tended to buy English arms, the English preferred cheaper Dutch-produced arms, and everyone bought their cloths from the Dutch, French, and British traders to Asia. Even when Europeans used African products to purchase slaves, these in turn were bought with European or Asian or even American manufactured goods. All these goods were purchased by traders for hard currencies.

In a major study of African trade in the seventeenth century, it has been estimated that textiles made up 50 percent of the total value of imports into Africa. Next in importance after textiles came alcohol at 12 percent; manufactured goods 12 percent; guns and gunpowder at 8 percent; tobacco at 2 percent and bar iron 5 percent. So important was the East Indian textile component of the trade that it explains the rise of the chief African slave trading ports in the French and English trades. While La Rochelle and Le Havre had been major slaving ports in the seventeenth century, by the beginning of the eighteenth century Nantes rose to be the primary port, much as Liverpool would be in the eighteenth century.

The trip out from Europe to Africa took anywhere from three to four months. Many ships stopped at other European ports for more cargo on the outward leg, or temporarily stopped to provision in the southern European ports or the Canary Islands. Moreover, the length of the trip also depended upon which area of Africa was to be the prime trading zone. Reaching Gorée, a major trading zone in the Senegambia region, for example, left another trip as long again to reach Angola.

The region selected for trade by each European national depended upon local and international developments. Rough spheres of influence were slowly established, with the English, Dutch, and the Portuguese most dominant as residents on the African coast with their permanent forts or factories. But no African area was totally closed to any European trader, and there was an extensive published contemporary literature and general European knowledge on the possibilities of local trade everywhere in Western Africa. The local forts maintained by some European powers were not military centers, but were commercial stations that facilitated local commerce with the Africans and had little inland activity. Many of these forts would allow foreign traders access to their resources. Even the Portuguese, who were the Europeans most likely to concentrate on a limited set of regions in southern Africa, would conduct trade in other quite open and competitive regions.

Although forts were well established by the middle of the seventeenth century along the Gold Coast and selected other regions, there was no major "bulking" or warehousing of slaves. The cost of slave maintenance to the Europeans was prohibitive, and would have made final costs quite high. There was little agricultural activity around the fort and it was virtually impossible for them to maintain slaves in storage once the majority of the slave ships had left for America. On the other hand, hinterland traders could easily absorb slaves into their own agricultural or industrial production as they waited for the return of the slave ships. It is estimated that feeding a slave on the coast for a year would have increased his or her price by 50 percent.

In the overwhelming majority of cases it was the Africans who controlled the slaves until the moment of sale to the captain. Only occasionally in the era of free trade did a local European purchase slaves on his own account for resale to the slaver captains. This had been more common in the earlier age of the monopoly companies, but even then had accounted for only a small volume of sales. It was the norm everywhere for slaves to be purchased in relatively small lots directly from the African sellers.

African slave traders came down to the coast or to river banks in a relatively steady and predictable stream to well-known trading places. The cost of moving the slaves in caravans to the coast was relatively cheap—only the costs for food for the slaves and the salaries of the guards, and the costs of purchase for any slaves lost in transit because of death or escape (a loss for which we have no systematic data for any African interior trade route). The slaves also could be used to move goods at no cost, with each male slave head carrying up to twenty-five kilograms of goods and women up to fifteen kilograms.

Given alternative local uses of slaves, inland traders arriving by caravan could respond to low European prices by holding these slaves off the market and using them as workers in agriculture or industry for any time period needed until prices rose again. Equally they could be sold to local consumers at any time on the trip, and from the few eyewitness accounts, this seems to have been a common experience. Eventually many of these slaves would then be resold into the Atlantic trade if demand were strong.

This trading system meant that all European traders tended to spend months on the coast or traveling upriver gathering their slaves a few at a time. Even the ports of Luanda and Benguela, the only African centers that maintained a large resident white population, still required a stay of several months for a ship's voyage to Brazil to complete their complement of slaves. It was typical in most trading areas for the captain to leave the ship in one spot and take small craft to trade inland, leaving another officer in charge of the ship. He was usually accompanied by the ship's doctor, who examined each slave for disease prior to purchase. During the several months needed to purchase the several hundred slaves each ship carried, the already purchased slaves were held ashore as long as possible to prevent the outbreak of disease on the ship, but even so death rates were relatively high for this "coasting" period. Good data are available on the "coasting" experience from the Dutch, French, and English trades. The seventeenth-century Dutch West Indies Company ships averaged 100 days on the coast picking up slaves, which was comparable to thirty-four British vessels in this period that averaged 95 days. In the era of the free traders, these rates often doubled.[34]

In provisioning for the voyage, all trades used common African foods and condiments along with dried foods and biscuits brought from Europe. They also brought with them lime juice for combatting scurvy. The Europeans all tried to supply standard foods that local Africans could consume, though this varied from region to region. Most used European- or American-produced wheat flour or rice to make a basic gruel that would then be seasoned with local condiments and supplemented with fresh fish and meats as well as dried versions of these foods. In the Sahel region, African millet was preferred to rice, while those from the delta of the Niger preferred yams. All the condiments used came from Africa, including the palm oil and the peppers, and all trades provided biscuits for both crew and slaves.

Even in the earlier seventeenth- and eighteenth-century trade, when much more European dried foods were used, Dutch slave captains purchased fresh vegetables and small livestock on the African coast, along with the ever-necessary supply of fresh water. As early as 1684 the Portuguese enacted provisioning acts for the slave trade, which mostly dealt with space utilization and water rations.[35] The French estimated that they needed one cask or barrel of water for every person aboard ship, and all trades gave drinking water three times per day, even when meals might only occur twice a day. The ship carrying the 600 slaves for a two-month voyage would thus need one water cask per slave (weighing between sixty and sixty-five kilograms per cask), which meant that some forty tons of water casks were loaded for the slaves alone. On some coasts water was not readily available and often had to be obtained in regions far from where the slaves were obtained. Finally the maintenance of the casks and the guarantee of their quality was an important part of the responsibility of the captain and the carpenters.



Almost all slave traders housed and organized daily life of the slaves in the same manner. The decks were divided usually into three separate living quarters, one for males, one for boys, and one for women and children. Sick slaves were usually isolated in their own compartment. Depending on the number taken, and the number ill, these compartments could be expanded or reduced. Slaves were usually shackled together at night to prevent rebellion and movement, but were then brought up to the deck during the day. On deck they were forced to exercise, often accompanied by African musical instruments. In the Dutch trade, for example, all captains purchased African drums so as to force the slaves to dance as a form of exercise. Usually the Africans stayed the entire day on deck and had their meals there if the weather permitted. At this time the crew went into their quarters and cleaned them out, often using vinegar and other cleansing agents. While all females were given simple cloths to wear, in some trades the males were left naked if the weather permitted. All slaves were washed everyday with sea water.

As is obvious from these details, it was the aim of all traders to keep the slaves and their quarters as clean as possible since there was a general awareness of the correlation between cleanliness and disease. Beyond this all slave trades carried a ship's doctor to care for the slaves and crew and their illnesses. Nevertheless the details given of the medical cabinets of these "doctors" show little of value for fighting the standard diseases that struck both crew and the slaves. Mortality and morbidity were high among the slaves and little beyond maintaining clean food and water supplies and guarantying the sick provided any effective remedy for these diseases.

After arriving in America, the slaver had to clear local customs and health registrations before the slaves were sold to local planters. Among the French it was the custom for the captain to sell his slaves directly, using a local agent who took a commission on all sales. The sale usually began immediately upon docking or within a week of landing. Slaves were either sold directly from the ship or brought to a special market on land. Usually the slaves were sold one at a time, with occasional sales of several to one buyer. Once agreeing on the price, usually only about a 20 percent down-payment was made, the rest to be paid in eighteen to twenty-four months. This second payment was often made in colonial goods, not in cash, which was always scarce in all American colonies. It was the agent who determined the credit worthiness of the local purchaser and it was he who was required to collect the final payments. He was also required to obtain a return cargo for the slave ship if this were possible. More often than not the ship was sent off with only a limited cargo, and finally returned to Europe some fifteen to eighteen months after having left Europe.[36]

Despite the myth of the so-called "triangle trade," the leg of the slaving voyage between America and Europe was the least important part of the slaving voyage; similarly, slave ships were not a significant element in the transportation of slave-produced American goods to the European market. In fact, most of the West Indies goods were shipped to Europe in boats specifically designed for that purpose, were both larger than the typical slaver and were exclusively engaged in this bilateral trade. Since many in the slavers' crews were supernumeraries after the slaves were sold in America, and the ships cost was a relatively minor part of the original expenditures of outfitting the slaving voyage, it often happened that slavers ended their voyage in the New World and the captain and a few crewmen returned to Europe on their own. Even when they did return to Europe they waited only a short time to return, making no effort to wait for the availability of American goods; more often than not such ships returned in ballast.

It usually took three full years to complete a voyage with the merchant needing to sell the constantly arriving colonial goods (by which most of the slaves were paid for) to local importers. The bulk of the credit sales were completed by the end of six years, though outstanding bills sometimes were never paid. It was the last three of the six years when the profit of the trade was made. From the work of the European economic historians, it is now evident that slave trade profits were not extraordinary by European standards. The average 10 percent rate obtained was considered a very good profit rate at the time, but not out of the range of other contemporary investments.

By whatever definitions used, the sale of African slaves was done in relatively open-market conditions. Although early in each European trade there are cases of ignorant slave captains seizing local Africans who appeared before them on the coast, these practices stopped quickly. European buyers were totally dependent on African sellers for the delivery of slaves. European traders never seriously penetrated beyond the coast before the late nineteenth century. The coastline itself was often lightly populated and had few slaves. Slaves in numbers sufficient to fill the holds of the slave ships only arrived to the coast via African merchants willing to bring them from the interior. The complexity of this exchange was such that it explains why slaves were purchased in such small numbers on the coast and why Europeans took months to gather a full complement of them for shipment to America. Given this balance of resources and power relations, the Europeans quickly discovered that anything but peaceful trade was impossible. Those who did not adapt were rapidly removed from the trade, sometimes by force.

Europeans also had to deal with the special demands of established states if



they wished to purchase slaves. Almost all traders paid local taxes for their purchases. They also dealt with the African traders as autonomous and powerful foreigners who controlled their own goods and markets and quickly adapted to local trading practices. All locally built forts paid ground rents and local taxes as well. It was estimated that in the Kingdom of Whydah on the Slave Coast, in the late seventeenth century, European slave traders had to pay the equivalent of thirty-seven to thirty-eight slaves (this cost valued at £375) per ship in order to trade for slaves in the kingdom.[37]

Given that both an internal and international slave trade existed prior to their arrival, the Europeans found it convenient to adjust to well-established local African markets and trading arrangements already in place. In many cases, the Europeans only deepened preexisting markets and trade networks. Africans were also quick to respond to European needs beyond the slaves themselves. Coastal Africans developed specialized production to feed and clothe the slaves arriving to the ports and to supply provisions for the European trading posts and their arriving ships. New trade routes were opened as European demand increased beyond local coastal supplies, and with it more long-distance trading became the norm everywhere. It was said that white and black Moslem traders from the Saharan region finally began trading at Whydah at the beginning of the eighteenth century, as the complex Saharan routes were now linked to the European Atlantic ones in the so-called Benin gap—the open savanna lands in the Lower Guinea Coast.

Coastal trading states acquired their slaves from the interior, purchasing them with both their local products such as salt, dried fish, kola nuts, and cotton textiles, as well as European goods. Unusual trade routes opened by Europeans were often developed as well by the Africans. The Dutch initiated direct oceanic trade on a systematic basis with small coastal yachts between the Gold Coast and the Slave Coast in the seventeenth century in order to purchase African products demanded on the Elmina markets for gold. Africans in ocean-going canoes soon followed and created a major new cabotage trade for regular African commercial goods between these two coasts for the first time. This in fact explains the origins of the settlement at Little Popo on the Slave Coast, which was a portage stopping point for Gold Coast canoes transferring from the ocean to the inland lagoon shipping channels.[38] And new American foods imported by Europeans for their own needs were soon cultivated by African producers. These imports included such fundamental crops as maize and sweet potatoes, along with manioc (casava), coffee, and cacao. Already by the 1680s the Slave Coast communities were supplying maize to the European slave ships. The Europeans also introduced pigs and such unfamiliar Asian products as citrus fruits. Many of these crops slowly replaced or supplemented traditional African foodstuffs, often permitting denser and healthier populations. Although some of these products were integrated into traditional food production arrangements, others became the basis for new local industries. There was even the case of imported European woollen cloths being unraveled for their thread and rewoven by Slave Coast weavers to produce new style cloth for consumption on the Gold Coast. This is aside from the well-known importation of Swedish bar iron that was used by African blacksmiths to produce agricultural instruments for clearing bush and planting crops. Nowhere on the coast were the Africans incapable of benefiting from European trade or the introduction of new products and using them to their own ends and needs.

A thriving market economy with specialization of tasks and production and a well-defined merchant class, in existence before the arrival of the Europeans in most areas of Africa, goes a long way toward explaining the rapidity and efficiency of the African response to European trade. Gold and slaves had been exported from Africa for centuries. From the Saharan caravan traders of the western Sudan to the stone cities and gold fairs organized by Swahili Islamic traders in East Africa, Africans were well accustomed to market economies and international trade well before the arrival of the Portuguese on the West African coast. This does not mean that these were necessarily full capitalist markets, since local monopolies, kinship, and religious constraints, along with state intervention, often created unequal access and restricted markets here as they still did in most of Europe in the fifteenth century. But in general, prices defined in whatever currencies, units of account or mixes of trade goods, fluctuated in response to supply and demand across the entire continent. Nor were traders reluctant to expand their markets or adopt new technologies.

To determine the price for which slaves were sold in Africa to Europeans is a very complex calculation. For the Europeans the price was the European cost of goods that they needed to purchase and offer in exchange for obtaining a slave. This European cost of goods was called the "prime" price. On the African coast, these goods were often doubled in value when sold to the Africans, and these prices in the trade were called the "trade" price. Almost all the European accounts when estimating their own costs used the "prime" price.[39] But even using the trade price for what the Africans had to pay is a complex calculation. The actual mix of goods used in any purchase was expressed in both European currencies as well as in African monetary accounts, which included such monies as cowry shells, copper wires, or even palm cloth, or was defined in such units as a trade "ounce"—which originally meant the value of an ounce of gold—"bundles," and other arbitrary units. These African currencies or units of



account were not uniform across Africa. Cowry shells, for example, were a primary money used in the Gulf of Guinea, but not on the Congo-Angola coast. The ounce was very common in the Gold Coast and associated areas, but not used elsewhere, while a "bundle" of goods was common in the trade to the Loango and Angolan coast. In the Upper Guinea coast, in the seventeenth century, Spanish silver coins were used and Brazilian gold dust was accepted as payment in the Biafran coast in the eighteenth century. Moreover, there was no uniform price for all slaves in a given port at a given time. Prices varied quite widely, based on the age, sex, and health of each slave. Women were on average 20 percent cheaper then men, and children were even cheaper still. Moreover, prime age males were 20 percent more expensive than older males, and so on. Thus average prices varied depending on the sex, age, and health of the slaves purchased, though in general between half and two-thirds of any group of slaves carried off the coast were made up of so-called "prime" age adult males. Slave prices also varied depending on local trading competition and supply conditions and even varied over the time of trading for an individual voyage. Moreover, the actual prices paid for each slave varied quite considerably from this mean, since each purchase was made with a variety of goods of markedly differing costs for the Europeans. Thus one English observer calculated that though the average price per slave on a given group of slaves was £3 15s., those purchased with cowry shells cost £4 each, those with beads and iron bars cost only £2 15s, and those sold for pieces of Indian cotton goods were valued as high as £6.

Nor were the goods that were sold by the Europeans over several centuries of the trade of the same quality, quantity, or price. Nor were the products that the Africans wanted for their slaves the same over time and place. While beads and brass bracelets did well in the seventeenth century, the number needed to purchase slaves increased to such an extent that they were worthless in such exchanges in the eighteenth century, as African sellers no longer expressed interest. Nor were European goods, East Indian textiles, or Indian Ocean cowries the only products used by the Europeans to purchase slaves. There were also large quantities of American goods imported, including Brazilian tobacco and North American rum. Often African goods were also employed. Cotton textiles of African make, salt, dried fish, kola nuts, various woven cloths, and other local coastal products were also used to purchase slaves in the interior markets, along with European goods. On the Senegambia and Upper Guinean savanna coast north of the forest areas, there were even imports of horses brought by Portuguese vessels from Arab sources in North Africa, which were used to purchase slaves, gold, and ivory. In the Cross River zone of the Bight of Biafra it was necessary to buy local copper rods to be used to purchase slaves, and in the

Loango Bay north of the Zaire River and on the river itself, it was customary to purchase locally produced palm cloth of the Vili group of Loango Coast to pay for slaves in the early centuries of the trade from the Congo and Angolan regions. The Portuguese were required to import North African cloths in their Senegambia trade in the sixteenth and seventeenth centuries.[40]

Despite all these variations there were some long-term trends evident in the selling of African slaves to the Europeans. Almost everywhere slave prices remained low or even declined from the early period to the end of the seventeenth century, suggesting that the growing supply exceeded any increased demand in most cases. Though American demand for slaves was on the increase, especially after the middle of the sixteenth century, the steady level of African wars due to state expansion and the European exploitation of new areas of the coast more than satisfied American needs. Slave prices on the Slave Coast, for example, which only developed as a prime source for slaves in the early seventeenth century, saw average prices decline for most of the century until the 1690s, when they began a long but steady period of growth.

The origin and manner in which slaves were obtained for sale to the Europeans is one of the more difficult areas to fully detail. It is evident from most sources that coastal peoples were able to supply sufficient slaves from groups close to the sea for the first century or so of the trade. By the eighteenth century slaves were being drawn from interior groups far from the coast. But who these groups were and how far from the coast they were situated is an issue difficult to resolve. Much of this difficulty is due to the ignorance of the European traders. They had only the vaguest notions of the names of interior groups or of their placement and relative importance. No ship's manifest lists the ethnic origin of the slaves they carried to America, just their port of purchase.

Most commentators have suggested that the slaves taken to America in the first two centuries of the trade came from the coastal areas probably no further than a few days march from the sea. Densely populated regions along the Senegambian, Guinean, and Congo coasts were a major and constant source of slaves over very long periods of time. But it is assumed that slaves were coming from much further inland by the second half of the eighteenth century as the trade expanded and intensified. Some diminishing of coastal slave trading must have occurred as local groups either were incorporated into more powerful states and obtained protection from raiding and enslavement or migrated out of range of the slave hunters, thus forcing local traders ever deeper into the interior. But even in the late eighteenth and early nineteenth century the majority of the slaves in most zones were still coming from relatively close to the coast. Thus, for example, the major exporting ports of the Bight of Biafran coast—Bonny and

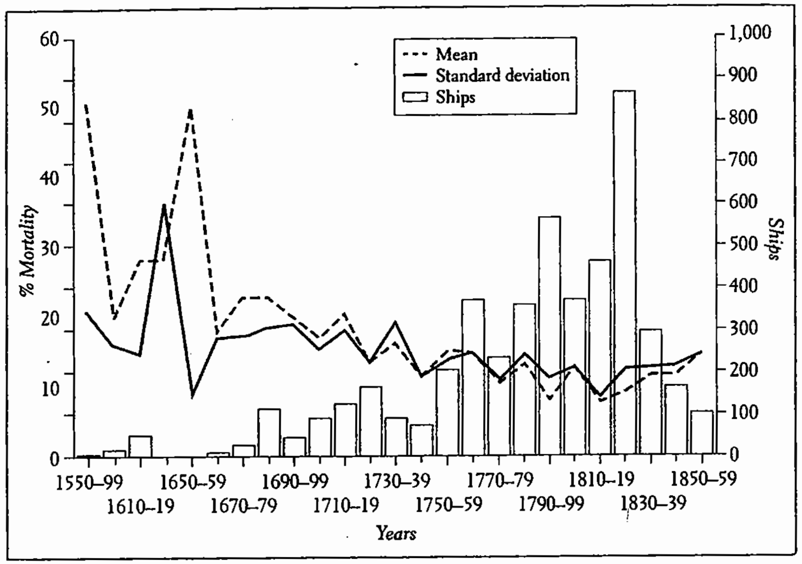


New Calabar (in the Niger Delta) and Calabar (in the Cross River Delta)—took the majority of their slaves from the Igbo and Ibibio language groups, who were densely settled between the Niger and the Cross Rivers quite close to these ports. Though Hausa, Nupe, and Kakanda peoples far to the north passed through these ports, they were definitely a minority.[41] What occurred in this major exporting zone was probably typical of what occurred in most regions. Traditional areas, if they were still exporting, were still the major source for slaves, and these were mostly located close to the coast. Only in the eighteenth century did the Loango and Angolan ports begin to develop major caravan routes that stretched several hundred miles into the interior.[42]

The ratio of total slaves leaving Africa as war captives is difficult to estimate. All studies agree that there were numerous ways to enslave peoples. Aside from captives taken in war, there was large-scale raiding for slaves along with more random individual kidnapping of individuals almost everywhere, especially on the poorly defined frontiers of the larger states. Common to most societies was the judicial enslavement for civil and religious crimes and indebtedness. Larger states often required dependent regions to provide tribute in slaves, which could then be shipped overseas. It is clear that there was no one dominant source of enslavement in any region, though force was ultimately the basic instrument used everywhere to obtain slaves. The fact that almost all African states recognized domestic slavery meant that enslavement was an accepted institution within the continent and that the cost of transportation and security of slaves was much less than otherwise would have been the case. The slave coffers in the market were respected by local peoples as long as their own members were not affected, and slaves were found in almost all internal markets as well as coastal ones.

It is evident that since force was required, and trading involved many communities and states, that the costs of entrance into the slave trading business were relatively high. Merchants had to organize porters, buy goods for trade, and have extensive personal, kin, or religious contacts over a wide area so as to guarantee peaceful passage, and they clearly needed soldiers or armed followers to protect their purchases from others or prevent their slaves from escaping. In turn, those who raided for slaves had to outfit well-armed and mobile groups that also needed to be able to resort to peaceful markets as well. All this meant that only relatively wealthy individuals, or well-defined associations of small merchants (found everywhere from Nigeria to Loango), could engage in the slave trade. These merchants had to be skilled in determining local market conditions and to be able to trade with the Europeans, along with using and obtaining credit from all their contacts. Though managed state trading existed in some places,

FIGURE 7.1. Mean and Standard Deviation of the Percentage of African Mortality in the Slave Trade by Decade, 1550–1859




*Source:* David Eltis, Stephen D. Behrendt, David Richardson, and Herbert S. Klein, *The Transatlantic Slave Trade, 1562–1867: A Database* (Cambridge: Cambridge University Press, 2000).

and kings and royal officials traded on their own everywhere, the market for slaves was dominated by merchants, who are reported to have been major actors everywhere, even in such royally dominated trading kingdoms as that of Dahomey. Since Europeans were free to trade anywhere on the coast and often refused to trade in areas where prices were too high, there rarely developed any market domination on the part of Africans. In turn the Africans refused to be confined to any one trading nation and actively fostered competition among buyers. The result was that slave prices varied according to supply and demand and tended to be uniform across all the coastal regions of West Africa.

The slaves destined to America would cross the Atlantic in a journey that became known as the "Middle Passage." To put the Middle Passage in context, it should be recalled that the water crossing on average took a month from Africa to Brazil and two months from the West African coast to the Caribbean and North America. But for most slaves a minimum of six months passed between being captured and boarding European ships, with an average of three months spent waiting on the coast just to board.

If the purchase of slaves on the African coast was not a costless transaction,



FIGURE 7.2. Slave Mortality in the Middle Passage, 1550–1799

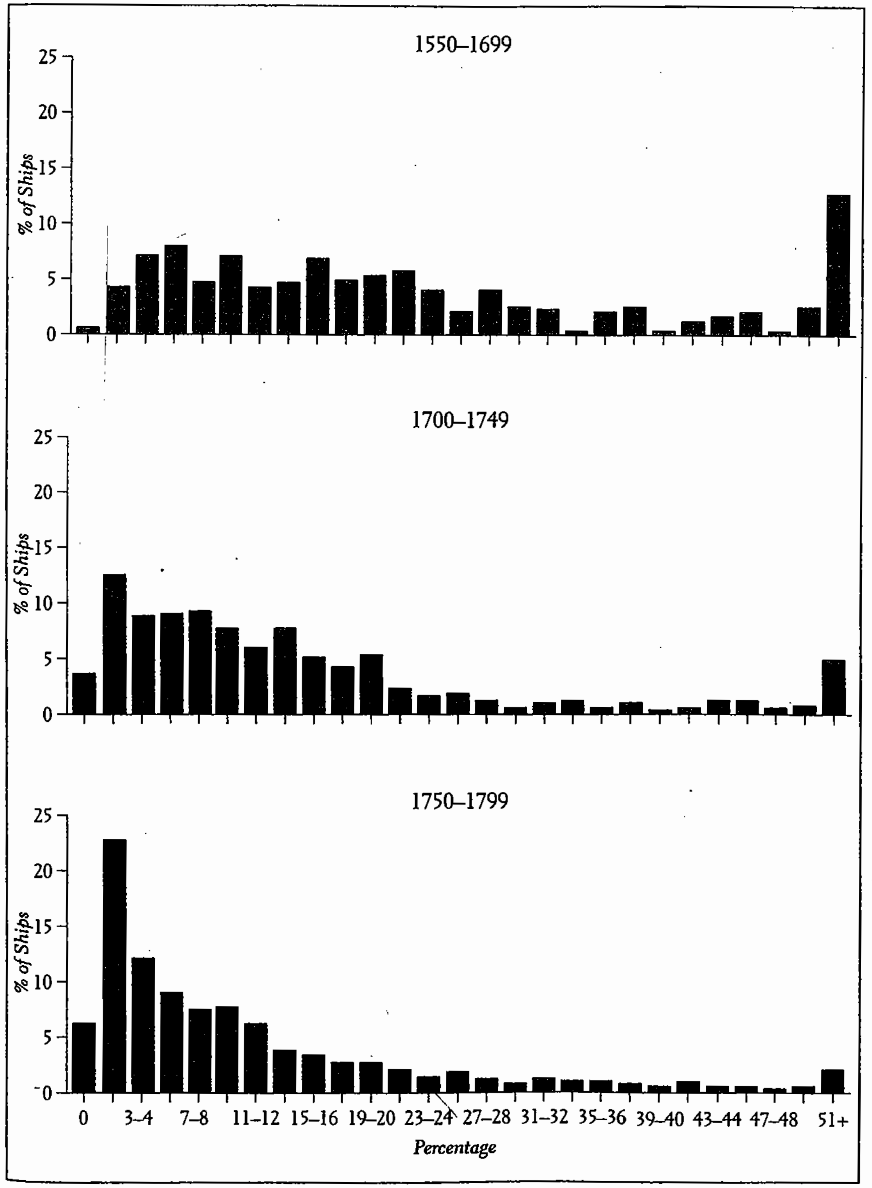


TABLE 7.1. Estimates of African Slave Arrivals, by Region, 1451–1650

| Quarter | Europe | Atlantic Islands | São Tomé | Spanish America | Brazil | West Indies: British | West Indies: French | West Indies: Dutch | West Indies: Danish | Total | Average Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1451–75 | 19,396 | 2,500 | | | | | | | | 21,896 | 876 |
| 1476–1500 | 37,544 | 5,000 | 1,000 | | | | | | | 43,544 | 1,742 |
| 1501–25 | 43,200 | 5,000 | 25,000 | | | | | | | 73,200 | 2,928 |
| 1526–50 | 7,500 | 5,000 | 18,800 | 12,500 | | | | | | 43,800 | 1,752 |
| 1551–75 | 2,500 | 5,000 | 18,800 | 25,000 | 10,000 | | | | | 61,300 | 2,452 |
| 1576–1600 | 1,300 | 2,500 | 12,500 | 37,500 | 40,000 | | | | | 93,800 | 3,752 |
| 1601–25 | 300 | | 12,500 | 93,850 | 150,000 | | | | | 256,650 | 10,266 |
| 1626–50 | 300 | | 6,300 | 93,850 | 50,000 | 20,700 | 2,500 | | | 173,650 | 6,946 |
| *Total* | 112,040 | 25,000 | 94,900 | 262,700 | 250,000 | 20,700 | 2,500 | | | 767,840 | 7,678 |

*Sources:* Based on the tables in Philip Curtin, *The Atlantic Slave Trade: A Census* (Madison: University of Wisconsin Press, 1969); as revised in David Eltis, "The Volume and Structure of the Transatlantic Slave Trade: A Reassessment," *William & Mary Quarterly*, 3rd series, 58, no. 1 (January 2001): 44. Professor Eltis has generously provided the numbers he used to create this table and his most recent revisions of these numbers. These in turn will appear in David Eltis et al., *The Transatlantic Slave Trade: A New Census* (Cambridge: Cambridge University Press, forthcoming). The data for the 1451–1525 period was taken from Ivana Elbel, "The Volume of the Early Atlantic Slave Trade, 1450–1521," *Journal of African History*, 38, no. 1 (1997): 73.

*Note:* I have summed Elbl's annual figures and assigned them to Curtin's twenty-five-year periods. I have also assumed that 1522–25 averaged the same as the last years Elbl studied. Finally, since her data is on African shipping estimates, I have reduced her figures by 20 percent for mortality. Also, I have arbitrarily assigned all the increased numbers to Europe.

then any loss of slaves on route would directly affect the ultimate profitability of the voyage. In fact high slave mortality on the crossing resulted in financial loss on the trip. It has been estimated for the eighteenth-century French slave trade—which has the best information on costs—that each transatlantic slave death on a ship carrying 300 slaves would reduce profits by 0.67 percentage points. Thus a mortality rate of 15 percent could reduce trading profits by as much as 30 percent.[43] This fact explains the increasing efficiency and uniformity that all trades achieved by the eighteenth century. Over time Europeans learned to better transport slaves on specially built ships most adequate for African trading. By the end of the seventeenth century, the average size ship was approaching half the size of a normal cargo ship of the period. Various late-eighteenth-century calculations estimate a space of from five to seven square feet per slave.[44] But despite this very limited space, in no large collection of slave voyages currently available is there a correlation between the manner of carrying slaves (either using a tonnage or space indicator) and the mortality they suffered. Moreover, at least in the seventeenth century, the 15 to 20 percent mortality experienced by slaves in the Atlantic crossing was probably similar to the experience of troop ships of the time in similar crossings.[45]

In dealing with mortality rates, most writers have defined it as the number of slaves who died on ship in the Middle Passage, either recorded directly in the contemporary records or calculated as the difference between slaves who boarded and slaves who landed divided by the number of slaves loaded on the African coast. The most significant pattern discerned in these death rates is the very wide distribution of mortality rates by voyage. This is found even when holding other features constant such as sailing times, ship sizes, African embarkation areas, and the age and sexual composition of slaves carried. There was a broad range of outcomes, with very many quite different experiences, even for the same captains or the same nationality of shippers. Very high mortality rates tend to be associated with unexpectedly long voyages, or to unusual outbreaks of disease, but in general it is the very broad range of outcomes rather than any bunching at specific mortality rates that has been the main characteristic of the transatlantic slave trade for most of its existence.

From the earliest recorded voyages in the late sixteenth and early seventeenth century when the death rates averaged 20 percent, slave shipboard mortality declined to less than one-half this level in the late eighteenth century. While the decline was relatively monotonic over time, there was an especially large decline in the last quarter of the eighteenth century. As sharp as was the decline in the mean of slave mortality rates, the median of slave ship mortality declined even more rapidly, with the entire distribution of mortality rates shifting down. There was a great increase in the share of voyages coming in at relatively low mortalities. Correspondingly, the percentage of ships with mortality rates above a selected threshold level fell, meaning that over time there were relatively fewer ships with very high mortality rates (see figures 7.1 and 7.2) and more and more ships were coming in at close to the mean mortality.

The general trend in ships sizes was to move from a wide range of ships with the majority being of very low tonnage, often carrying high ratios of slaves, to a middle range tonnage vessel carrying fewer slaves per ton. Moreover, this trend was common to all slave trades regardless of the local national tonnage measurements used. This meant that there was a progressive increase of slaves carried per ship, as average tonnage increased and a more steady ratio of slaves per ton was achieved.[46] Also, all such slaving ships were unique in their internal arrangements as well, usually using temporary decks to house the slaves, which were divided by bulkheads made of open grates with open latticed grates for deck hatches. On several of the ships for which designs exist (all from the eighteenth century), there were even opened up ventilation ports (with hatches to be closed in inclement weather) on the sides of the ships between the gun ports and above the platforms built over the lower deck, creating air flow across the platforms. These design features were unique to slavers and were specifically designed for bringing air into the sleeping quarters of the slaves. Late-eighteenth-century British vessel measurements show that they all divided their internal space in a common pattern: the men's rooms were on average three times the size of the boys', and twice the size of the women's and infants' quarters, with the boys' quarters separating the men's and women's rooms.

Though all these arrangements had still not been fully worked out by 1650, enough of the basic knowledge about markets in Africa and America and the transportation of slaves across the Atlantic had been developed that it can be said that the modern slave trade had now fully evolved in its basic structure. The only change in markets after this would be the incorporation of South East African slaves into the Atlantic slave trade in the early nineteenth century, or the more



intensive development of New World markets. By 1650 a minimum of some 708,000 slaves had been delivered by the European trades to the European and Atlantic markets (see table 7.1). The trade was now moving some 7,000 slaves per annum, a figure that would rise to 24,000 per annum by the last quarter of the seventeenth century. Thus the trade was well able to keep pace with American demand as the century-long stability of prices in slaves has suggested. It was not until well into the eighteenth century that demand for slaves in America finally outpaced supply.

## NOTES

1. Paul E. Lovejoy, *Transformations in Slavery: A History of Slavery in Africa* (Cambridge: Cambridge University Press, 1983), 24.

2. John Vogt, *Portuguese Rule on the Gold Coast, 1469–1682* (Athens: University of Georgia Press, 1979), 9.

3. A. C. de C. M. Sauders, *A Social History of Black Slaves and Freedmen in Portugal, 1441–1555* (Cambridge: Cambridge University Press, 1982), 55.

4. Ibid., 29.

5. On the Madeira sugar industry and the role of African slaves, see Alberto Vieira, *Os escravos no arquipélago da Madeira* (Funchal: Centro de Estudos de História do Atlântico, 1981).

6. By 1582 there were some 14,000 African slaves and 400 freedmen in these previously uninhabited islands, though most of the slaves were dedicated to local cloth production. Walter Rodney, *A History of the Upper Guinea Coast, 1545 to 1800* (Oxford: Clarendon Press, 1970), 72.

7. Tony Hodges and Malyn Newitt, *São Tomé and Príncipe: From Plantation Colony to Microstate* (Boulder, Colo.: Westview Press, 1988), 19–21.

8. Frederick P. Bowser, *The African Slave in Colonial Peru, 1524–1650* (Stanford: Stanford University Press, 1974), 75.

9. Ibid., 92ff.

10. This discussion is based on ibid., chaps. 4 and 6.

11. Ibid., 341.

12. Alberto Crespo R., *Esclavos negros en Bolivia* (La Paz: Academia Nacional de Ciencias de Bolivia, 1977), 31.

13. Colin A. Palmer, *Slaves of the White God: Blacks in Mexico, 1570–1650* (Cambridge: Harvard University Press, 1976), 76. For the experience of African slaves in the mines, see P. J. Bakewell, *Silver Mining and Society in Colonial Mexico, Zacatecas, 1546–1700* (Cambridge: Cambridge University Press, 1971), 122–24.

14. For an analysis of African slaves in Mexico the best survey is that of Palmer, *Slaves of the White God*. See also Gonzalo Aguirre Beltrán, *La población negra de México, 1519–1810: Estudio etnohistórico*, 2d ed. (Mexico City: Fondo de Cultura Económica, 1972).

15. Beltrán, *La población negra*, 219.

16. Stuart B. Schwartz, *Sugar Plantations in the Formation of Brazilian Society: Bahia, 1550–1835* (Cambridge: Cambridge University Press, 1985), 65.

17. In fact, the 15,000 Africans on the islands, compared to only 2,000 in British North America at this time, meant that the former were more populated than the latter. John McCusker and Russell R. Menard, *The Economy of British America, 1607–1789* (Chapel Hill: University of North Carolina Press, 1985), 54, table 3.1.

18. The density estimates have been converted from those given in square kilometers by Jean Meyer, *Histoire du sucre* (Paris: Ed. Desjonquères, 1989), 129.

19. For the demographic history of Barbados, see Richard S. Dunn, *Sugar and Slaves: The Rise of the Planter Class in the English West Indies, 1624–1713* (Chapel Hill: University of North Carolina Press, 1972). By 1700 there were an estimated 115,000 black slaves and only 33,000 whites in the British West Indies; see McCusker and Menard, *Economy of British America*, 154, table 7.2.

20. This estimate is taken from Christian Schnakenbourg, "Statistiques pour l'histoire de l'économie de plantation en Guadeloupe et Martinique (1635–1835)," *Bulletin de la Société d'Historie de La Guadeloupe* 21 (1977): 44–47; David Watts, *The West Indies: Patterns of Development, Culture, and Environmental Change since 1492* (Cambridge: Cambridge University Press, 1987), 320, table 7.9; and Meyer, *Histoire du sucre*, 112.

21. The best survey of this early trade is found in Saunders, *Social History of Black Slaves*, chap. 1.

22. Ivana Elbl, "The Volume of the Early Atlantic Slave Trade, 1450–1521," *Journal of African History* 38, no. 1 (1997). The Portuguese by the first two decades of the sixteenth century were purchasing over 400 kilos per annum from inland traders, which was roughly one-fourth of West African gold production in that period.

23. For the comparative volume of the different external African trades over time, see Lovejoy, *Transformations in Slavery*, 45, table 3.1.

24. David Eltis and Lawrence C. Jennings, "Trade between Western Africa and the Atlantic World in the Pre-Colonial Era," *American Historical Review* 93 (1988): 936–59. There is also a recent debate about value of slaves in total trade before 1700 in Ernst van den Boogart, "The Trade between Western Africa and the Atlantic World, 1600–90," *Journal of African History* 33, no. 3 (1992): 369–85; and the reply of David Eltis, "The Relative Importance of Slaves and Commodities in the Atlantic Slave Trade of Seventeenth-Century Africa," *Journal of African History* 35, no. 2 (1994).

25. One of the best introductions to the *asiento* arrangements is found in Bowser, *African Slave*, 28. For studies of individual Asiento contract arrangements in the pre-1700 period, see Enriqueta Vila Vilar, *Hispanoamérica y el comercio de esclavos: Los asientos portugeses* (Seville: Escuela de Estudios Hispano-Americanos, 1977); and María Vega Franco, *El tráfico de esclavos con América . . . 1663–1674* (Seville, 1984). On the Portuguese experiment with localized monopoly companies, see Antonio Carreira, *As Companhias Pombalinas de navegação, comercio e tráfico de escravos entre a costa africana e o nordeste brasileiro* (Porto, 1969).

26. On the development of the French monopoly companies, see Abdoulaye Ly, *La Compagnie du Senégal* (Paris: Présence Africaine, 1958).



27. Johannes Menne Postma, *The Dutch in the Atlantic Slave Trade, 1600–1815* (Cambridge: Cambridge University Press, 1990), 54.

28. On the RAC see K. G. Davies, *The Royal African Company* (London: Longman Green, 1957), as well as the much earlier studies of George Frederick Zook, *The Company of Royal Adventurers Trading into Africa* (Lancaster: New Era Printing, 1919).

29. The discussion of the economics of the slave trading voyages is a summary based on the detailed studies of Postma, *Dutch in the Atlantic Slave Trade*, esp. chap. 11; Jean Meyer, *L'armement nantais dans le deuxième moitié du XVIII siècle* (Paris: SEVPEN, 1969); and Robert Louis Stein, *The French Slave Trade in the Eighteenth Century: An Old Regime Business* (Madison: University of Wisconsin Press, 1979).

30. Postma, *Dutch in the Atlantic Slave Trade*, 156. Nor did these figures change much over time. Of the 312 captains who made slaving voyages out of the port of Bordeaux in the seventeenth and eighteenth centuries, 71 percent made only one voyage and the average was 1.5 voyages for all the captains. Eric Sauger, *Bordeaux, port négrie: chronologie, économie, idéologie, XVIIe–XIXe siècles* (Paris: Kartalha, 1995), 225.

31. The average for 870 slavers leaving Nantes in the 1749–92 was thirty-four crewmen per vessel; see Meyer, *L'armement nantais dans la deuxième moitié*, 79–80, 83–86. Dutch slavers on average carried a crew of forty in the seventeenth century. See Postma, *Dutch in the Atlantic Slave Trade*, 153.

32. Numbers generated from the voyage data in David Eltis, Stephen D. Behrendt, David Richardson, and Herbert S. Klein, *The Transatlantic Slave Trade: 1562–1867: A Database* (CD-ROM) (Cambridge: Cambridge University Press, 1999).

33. This is the generally agreed upon estimate provided for the best-studied French trade by Meyer, *L'armement nantais dans la deuxième moitié*, 159; and Stein, *French Slave Trade*, 139.

34. For the Dutch data, see Postma, *Dutch in the Altantic Slave Trade*, 157.

35. Arquivo Historico Ultramarino (Lisbon), Angola, caixa no. 10. Printed law dated 18 March 1684.

36. Stein, *French Slave Trade*, 110, covers average French patterns; and for the English selling practices, see David W. Galenson, *Traders, Planters and Slaves: Market Behavior in Early English America* (Cambridge: Cambridge University Press, 1986). See also Trevor Burnard, "Who Bought Slaves in Early America? Purchases of Slaves from the Royal African Company in Jamaica, 1674–1708," *Slavery and Abolition* 17, no. 2 (1996).

37. Robin Law, *The Slave Coast of West Africa, 1550–1750: The Impact of the Atlantic Slave Trade on an African Society* (Oxford: Clarendon Press, 1991), 207.

38. Ibid., 148–50.

39. Ibid., 170.

40. Vogt, *Portuguese Rule on the Gold Coast*, 9, 66–69.

41. David Northrup, *Trade Without Rulers: Pre-Colonial Economic Development in South-Eastern Nigeria* (Oxford: Clarendon Press, 1978), 59ff.

42. For an analysis of these trades, see David Birmingham, *Trade and Conflict in Angola: The Mbundu and Their Neighbours under the Influence of the Portuguese, 1483–1790* (Oxford: Clarendon Press, 1966); and Phylis M. Martin, *The External Trade of the Loango Coast, 1576–1870* (Oxford: Clarendon Press, 1972).

43. Stein, *French Slave Trade*, 141–42.

44. For a detailed analysis of space aboard slave ships, see Charles Garland and Herbert S. Klein, "The Allotment of Space for African Slaves Aboard Eighteenth Century British Slave Ships," *William & Mary Quarterly* 42, no. 2 (1985).

45. For an analysis of slave mortality over time and its comparison to other shipboard mortality rates, see Herbert S. Klein and Stanley L. Engerman, "Long-Term Trends in African Mortality in the Transatlantic Slave Trade," in *Routes to Slavery: Direction, Ethnicity and Mortality in the Transatlantic Slave Trade*, ed. David Eltis and David Richardson (London: Frank Cass, 1997), 36–49.

46. For a detailed discussion of ships and their changing size and carrying capacity, see Herbert S. Klein, *The Middle Passage: Comparative Studies in the Atlantic Slave Trade* (Princeton: Princeton University Press, 1978).