Chapter 2
Seeds of Memory: Botanical Legacies of the African Diaspora

Judith Carney

Abstract The decades following 1492 launched an era of European overseas expansion, which led to an unprecedented intercontinental exchange of plant and animal species. Literature on the Columbian Exchange emphasizes the New World and Asian crops that revolutionized the food systems of Africa but ignores the role of African crops in the New World tropics. This chapter draws attention to the neglected African components of the Columbian Exchange. The movement of African plant and food animals across the Atlantic Ocean in the initial period of plantation development depended on the transatlantic slave trade for their dispersal. Plants and animals arrived on slave ships together with African captives for whom the species were traditional dietary staples, medicinals, and food animals. A proper appreciation of African contributions to New World agricultural systems requires a new perspective on plantation societies, one that shifts standard research from the export commodities that slaves grew to the plants they cultivated for their own needs. This in turn draws attention to the significance of African species as a vital logistical support of the transatlantic slave trade and to the agency of enslaved Africans in pioneering cultivation of familiar dietary plants in their dooryard gardens and food fields.

Keywords Columbian Exchange • African diaspora • Slavery • Subsistence • Food animals • Culinary signatures

Seeds of Memory: Botanical Legacies of the African Diaspora

The decades following 1492 launched an era of European overseas expansion, which led to an unprecedented intercontinental exchange of plant and animal species. Historian Alfred W. Crosby famously called this process the *Columbian Exchange*.

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In his second book, *Ecological Imperialism*, Crosby drew attention to the significance of ordinary people for the transfer of species across the globe. These were European emigrants to new lands—people who were not operating as administrators, scientists, or representatives of colonial institutions such as botanical gardens, scientific societies, and museums. With the plant and animal species that accompanied them, European settlers transformed the environments of Australia, New Zealand, and South Africa into, in Crosby's words, *Neo-Europes* (Crosby 1972, 1986).

However, the Columbian Exchange literature ignores another important intercontinental species transfer that over the same period of time also occurred as a consequence of immigration. In this instance, the migration was not voluntary but forced, and the agents of dissemination involved not just Europeans but also enslaved Africans. Reference is to the African plants and food animals that proved instrumental for European colonization of the New World tropics. The movement of these biota across the Atlantic Ocean to tropical America in the first century of plantation development depended significantly on the transatlantic slave trade for their dispersal. Plants and animals arrived on slave ships together with African captives for whom they were traditional dietary staples, medicinals, and food animals. Although the Columbian Exchange celebrates the role of New World and Asian crops in revolutionizing food systems of Africa, there is little attention given to the impact of African species in lowland tropical America. Of interest is the contrasting significance of these African species for slaveholders and the enslaved.

This chapter examines the largely unheralded African components of the Columbian Exchange. The discussion refers to more than two dozen plants, which arrived in plantation societies during the transatlantic slave trade (Table 2.1). Most are of African origin. Others, domesticated originally in Asia, reached the continent in prehistory, when Africans adopted them into existing agricultural systems. Each of these plants is documented in the historical record of crops grown in New World plantation societies.

A proper appreciation of African contributions to New World agricultural systems requires a new perspective on plantation societies, one that shifts standard research from the export commodities that slaves grew to the plants they cultivated for their own needs. This in turn draws attention to three additional and interrelated concerns: (1) the significance of African species as a vital logistical support of the transatlantic slave trade, (2) their role in colonization of the New World tropics, and (3) the agency of enslaved Africans in pioneering cultivation of familiar dietary and medicinal plants in their dooryard gardens.

By way of introduction, it is important to understand the growing intersection of European and African experiences that began right at the start of the so-called Age of Discovery. Prior to the colonization of the Americas, there were enslaved Africans in the Iberian Peninsula. They arrived during the Muslim occupation through the trans-Saharan trade in slaves. Documents record their presence in Spain during the fourteenth century. With maritime expansion in the early fifteenth century, the Portuguese diverted the slave trade to direct importation from places their caravels reached along the African coast. By 1448, about a 1,000 slaves had been carried back by sea to Portugal and its colonies in the Atlantic islands (Madeira, Azores).

Table 2.1 African plants mentioned in historical records of plantation societies of tropical America

Common names	Species names
Cereals	
Millet	*Pennisetum glaucum*
Sorghum	*Sorghum bicolor*
Rice	*Oryza* spp.
Tubers	
Yams	*Dioscorea cayenensis*
Plantain/banana	*Musa* spp.
Taro/eddo	*Colocasia esculenta*
Legumes	
Black-eyed pea/cowpea/calavance	*Vigna unguiculata*
Pigeon/Angola/Congo pea/*guandul*	*Cajanus cajan*
Bambara groundnut/*Voandzeia*	*Vigna subterranea*
Lablab/hyacinth/bonavist bean	*Lablab purpureus*
Oil plants and fruits	
Castor bean	*Ricinus communis*
Oil palm	*Elaeis guineensis*
Watermelon	*Citrullus lanatus*
Muskmelon	*Cucumis melo*
Ackee	*Blighia sapida*
Beverages	
Roselle/bissap	*Hibiscus sabdariffa*
Kola nut	*Cola* spp.
Vegetables and spices	
Okra	*Hibiscus esculentus*
Egyptian spinach/jute mallow	*Corchorus olitorius*
Guinea pepper	*Xylopia aethiopica*
Guinea squash	*Solanum aethiopicum*
Forage grasses	
Guinea grass	*Panicum maximum*
Angola/Pará grass	*Brachiaria mutica*
Bermuda grass	*Cynodon dactylon*
Molasses grass	*Melinus minutiflora*
Jaraguá grass	*Hyparrhenia rufa*

Source: Carney and Rosomoff (2009)

By the middle of the sixteenth century, African slaves formed one-tenth of Lisbon's population of 100,000. Seville's slave population exceeded 6,000—one out of every 14 urban dwellers (Fig. 2.1) (Pike 1967; Saunders 1982).

The first African slaves introduced to the New World originated in Seville, where many had been born. In 1510, the Spanish monarchs shipped 200 African slaves to Hispaniola (they were baptized in the Christian faith just prior to their departure). African slaves and freedmen also formed part of the conquistador armies in the New World. One example is Juan Garrido, who was born in West Africa about 1480,

Fig. 2.1 Image by anonymous artist. *Chafariz d'el Rey*, c. 1570–1580 (Reproduced with permission of Collection Joe Berardo, Lisbon, Portugal)

enslaved by the Portuguese as a teenager, and taken to Hispaniola in 1503. He was part of the contingent that landed in Veracruz, Mexico with Cortés and his army in 1519. The anonymous figure depicted in Fig. 2.2 may have been Garrido or another African whose destiny similarly placed him as a participant in the Spanish conquest of the Aztec Empire (Restall 2000).

Food Grown in Africa as a Vital Support of the Atlantic Slave Trade

Africans participated fully in the Neolithic Revolution that led to plant and animal domestication in different parts of the world beginning some 10,000 years ago. African contributions to global food supplies include nine cereals, half a dozen root crops, five oil-producing plants, several forage crops and as many vegetables, three fruit and nut crops, coffee, and the bottleneck gourd (Table 2.2). Most of these food-staples are tropical species and not widely known to Western consumers. These contributions to world food supplies are often overlooked because some of the continent's staples are incorrectly assigned an Asian origin. But the African continent harbors several indigenous food crops, including rice (*Oryza glaberrima*) and eggplant (NRC 1996, 2006; Carney 2001).

Fig. 2.2 Image entitled *El Encuentro de Cortes y Moctezuma* appears in Fray Diego de Duran, *Historia de las Indias de Nueva España y Islas de Tierra Firme*, Plancha 58, c. 1579–1581 (Reproduced with courtesy of La Biblioteca Nacional, Madrid, Spain)

Table 2.2 Food crops of African origin

Savanna	
Adansonia digitata L.	Baobab
Brachiaria deflexa (Schumach.) C.E. Hubb. Ex Robyns	Guinea millet
Ceratotheca sesamoides Endl.	Leaves and seeds
Citrullus lanatus (Thunb.) Matsum. & Nakai	Watermelon
Corchorus olitorius L.	Jute mallow/bush okra
Cucumis melo L.	Muskmelon
Digitaria decumbens Stent	Pangola grass
Digitaria exilis (Kippist) Stapf	Fonio/"hungry rice"
Digitaria iburua Stapf	Black fonio
Hibiscus cannabinus L.	Kenaf
Hibiscus sabdariffa L.	Sorrel/hibiscus/roselle/bissap/vinagreira/cuxá
Lagenaria siceraria (Molina) Standl.	Bottle gourd
Oryza glaberrima Steud.	African rice
Parkia biglobosa (Jacq.) R. Br. Ex G. Don	Locust bean
Pennisetum glaucum (L.) R. Br.	Bulrush or pearl millet
Polygala butyracea Heckel	Black beniseed
Sesamum alatum Thonn.	Sesame: leaves
Sesamum radiatum Schumach. & Thonn.	Beniseed
Solanum aethiopicum L.	African eggplant/garden
Solanum incanum L.	Bitter tomato
Solanum macrocarpon L.	Nightshade
Sorghum bicolor (Linn.) Moench	Sorghum/guinea corn

(continued)

Table 2.2 (continued)

Vitellaria paradoxa C.F. Gaertn.	Karité or shea butter tree
Vigna subterranea (L.) Verdc.	Bambara groundnut/Voandzeia
Xylopia aethiopica (Dunal) A. Rich	Guinea pepper
West African Savanna-Woodland Ecotone	
Aframomum melegueta K. Schum.	Melegueta pepper
Amaranthus spp.	Vegetable amaranth/African Spinach/ bledo/callaloo
Blighia sapida K.D. Koenig	Ackee/akee apple
Cajanus cajan (L.) Millsp.	Pigeon pea/Congo pea/Angola pea/ guandul
Coffea robusta Linden	Coffee (*robusta*)
Cola acuminata (P. Beauv.) Schott & Endl.	Kola nut
Cola nitida (Vent.) Schott & Endl.	Kola nut
Cucumeropsis edulis (Hook. f.) Cogn.	Egusi
Dioscorea bulbifera L.	Air potato yam
Dioscorea cayenensis Lam	Yellow guinea yam
Dioscorea dumetorum (Kunth) Pax	Three-leaved or bitter yam
Dioscorea rotundata Poir.	White guinea yam
Elaeis guineensis Jacq.	Oil palm
Gossypium herbaceum L.	Cotton
Hibiscus esculentus L.	Okra, gumbo
Kerstingiella geocarpa Harms	Kersting's groundnut/Hausa groundnut/ geocarpa bean
Momordica charantia L.	African cucumber/bitter melon
Piper guineense Schumach & Thonn.	Piper seed
Plectranthus esculentus N.E. Br.	Dazo/finger potato
Solenostemon rotundifolius (Poir.) J.K. Morton	Hausa potato/piasa
Sphenostylis stenocarpa (Hochst. ex A. Rich.) Harms	African yam bean
Tamarindus indica L.	Tamarind
Telfairia occidentalis Hook. f.	Fluted pumpkin
Vigna unguiculata (L.) Walp.	Cowpea/black-eyed pea
Ethiopia/East African Highlands	
Avena abyssinica Hochst.	Ethiopian oats
Catha edulis Forssk.	Chat
Coccinia abyssinica (W. & A.) Cogn	Anchote
Coffea arabica L.	Coffee (*arabica*)
Eleusine coracana (Linn.) Gaertn.	Finger millet
Ensete ventricosum (Welw.) Cheesman	Enset
Eragrostis tef (Zucc.) Trotter	Tef
Guizotia abyssinica (L.f.) Cass.	Niger seed, noog
Lablab purpureus Sweet	Lablab/hyacinth bean/bonavist/Egyptian bean
Panicum maximum Jacq.	Guinea grass
Pennisetum clandestinum Hochst. Ex Chiov.	Kikuyu grass
Ricinus communis L.	Castor bean

Source: Harlan (1975), 71–72 and MacNeish (1992), 298–318

Africans also contributed in important ways to the development of several Asian crops that reached the African continent centuries before the beginning of the transatlantic slave trade (McNeill 2000; Alpern 2008). These include the root crops: taro, the Asian yam, ginger, plantain, and the banana. The banana and its cousin, the cooking banana or plantain, arrived in Africa between 2,000 and 3,000 years ago. African experimentation with these related plants led to the development of new cultivars and the emergence of secondary centers of domestication on the African continent (de Langhe 1995; Mbida et al. 2000; Kleiman 2003). In emphasizing the geographical origin of specific plants such as the banana and plantain, rather than the continent where European navigators first encountered them, Columbian Exchange scholars unwittingly depreciate African botanical contributions to global plant transfers. Such views inadvertently perpetuate the misperception of Africa as a continent with few botanical resources of its own, one that has always depended on food introduced from elsewhere for the survival of its peoples.

During the Atlantic slave trade, Africa, in fact, routinely produced surplus food. We know this from ship manifests as well as the logs and drawings of ship captains, who depended on African-grown food to facilitate their commerce in human beings. While slave ships carried some food stores from Europe, captains relied in no small part on African food surpluses to provision their human cargoes across the Middle Passage. Food purchased in Guinea's ports included introduced Amerindian crops—notably maize, bitter manioc, and peanuts emphasized in the Columbian Exchange literature—as well as indigenous African foodstaples (such as millet, rice, black-eyed pea, and melegueta pepper). Captains of slave ships purchased foodstaples in bulk, frequently revealing a distinct preference for traditional African dietary staples because they commonly believed that mortality rates across the Middle Passage improved when captives were given food to which they were accustomed. Slavers purchased provisions for the transatlantic crossing from African merchant middlemen, supplies stocked by European forts along the Guinea Coast, and in local markets (Carney and Rosomoff 2009).

The region from Senegal to Liberia, known during the slave trade as the Upper Guinea Coast, provided indigenous cereals such as millet (*Pennisetum glaucum*), sorghum (*Sorghum bicolor*), and African rice (*O. glaberrima*) in addition to the Bambara groundnut (*Vigna subterranean*) and melegueta pepper (*Aframomum melegueta*). Traditional dietary staples purchased to the south in Lower Guinea included African yams (*Dioscorea cayenensis*, *D. rotundata*), the oil palm (*Elaeis guineensis*), black-eyed pea (*Vigna unguiculata*), and the pigeon pea (*Cajanus cajan*). The Asian root crops Africans had adopted in prehistory also figured in food purchases, notably the Asian yam (*Dioscorea alata*), taro (*Colocasia esculenta*), and plantains (*Musa* spp.). The African kola nut (*Cola nitida*, *C. acuminata*) was also a frequent passenger on slave ships. Long a traditional African medicinal, kola was prized for its ability to improve the taste of stored drinking water. Slave captains quickly borrowed the African practice: by placing kola nuts in shipboard water casks, stagnant water could be refreshed and made palatable again during the long transatlantic voyage (Hair et al. 1992, I: 188).

African Animal Introductions and Forage Grasses

Slave ships also carried live animals to the Americas as fresh meat for their crews. The first to make its appearance in the historical record of plantation societies is the guinea fowl (*Numida meleagris*). A Jesuit priest claimed that the guinea fowl arrived on ships that carried the first boatloads of African slaves to Hispaniola. The African "chicken" was a well-established food animal in Pernambuco, Brazil, when German naturalist Georg Marcgraf described and drew it in 1640. Marcgraf used the existing Portuguese name for the guinea fowl, *galinha d'Angola*, and averred its African provenance (Marcgrave 1942, 192; Donkin 1991, 97). The guinea fowl formed a significant component of the small animal stock that some plantation slaves were able to keep. They raised them in the yard around their dwellings and occasionally sold them to their masters. Today, it remains an important poultry species reared by African Americans in the southern United States. In Brazil, the guinea fowl is also raised for food and is featured in the liturgical practices of the Africa-derived religion, *candomblé* (Pessoa de Barros 1993).

European vessels deliberately transported African livestock to tropical America since the animals were better adapted to the climate than their European counterparts. The African "hair" sheep did not have the woolly coat that made the lowland tropics inhospitable for European breeds. But it did satisfy colonists' demands for animals suited to New World tropical environments. The hair sheep was introduced as a meat animal in the early settlement period of Brazil, Barbados, and Jamaica. Marcgraf noted its arrival in Brazil via ships from western Africa. He also recorded the seventeenth-century Portuguese names for the hair sheep: *carneiro de Guiné* and *carneiro d'Angola* (Marcgrave 1942, 234). Writing about Jamaica later that century, Hans Sloane—founder of the British Museum—indicated that the island's sheep were a breed that came from Africa (Sloane 2001, I: 254). Richard Ligon, who resided in Barbados during the 1640s, identified two locations along the African coast where the hair sheep breed was transported to the English colony: "[They] are brought from *Guinny* and *Binny*, and those have hair growing on them, instead of wool; and liker goats than sheep" (Ligon 1970, 59).

African cattle also comprised some of the livestock introduced to the Americas. By the seventeenth century, Europeans had developed a flourishing trade in live animals, meat, and hides with livestock holding societies of the Upper Guinea Coast. African cattle were sold to slave ships (Gamble and Hair 1999). Jean Barbot's drawing made during a French slaving expedition to West Africa in the late seventeenth century shows Africans transporting cattle (likely the dwarf indigenous *n'dama* breed) in their canoes to waiting slave ships (Fig. 2.3) (Barbot 1752, 99). The image, with its implication of African cattle transfers to the New World, corroborates the findings of recent genetic studies. This research reveals that African cattle were indeed brought to tropical America and influenced the development of New World Creole livestock populations. DNA analysis shows genetic introgressions by African cattle in two ways—one via the Iberian Peninsula, the other directly from West

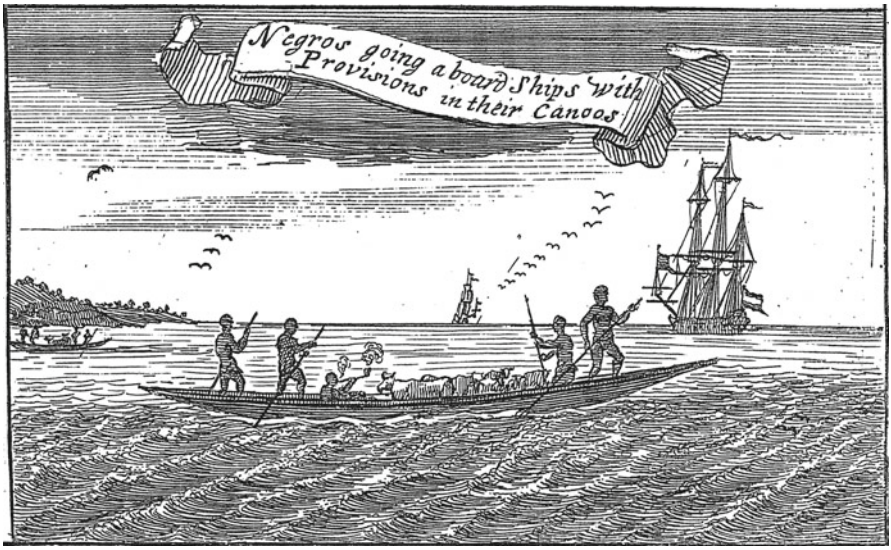

Fig. 2.3 Barbot (1752, vol. V, Plate E, 99)

Africa. In the first, African cattle entered the Iberian livestock population in two distinct historical periods—during the Bronze Age when they were introduced across the Straits of Gibraltar and during the Moorish occupation of the Iberian Peninsula. These introductions contributed genes from African progenitors to Iberian cattle populations. However, some New World breeds (*Guadeloupe Creole*, other types found in Brazil) were directly influenced by the DNA of cattle imported from West Africa during the transatlantic slave trade. Suited to the high temperature and humidity of lowland tropical America, these cattle were introduced via established Portuguese and French slave routes from West Africa (Cymbron et al. 1999; Magee et al. 2002; Lirón et al. 2006; Carney and Rosomoff 2009; Ginja et al. 2009).

Transport animals, such as donkeys (native to Africa) and camels, were also brought to the Americas in the early colonization period. The Portuguese named one donkey breed they transported, *assinigoes*, likely after the livestock-herding Berber Azenegues, who lived north of the Senegal River and with whom they traded at Arguim Island. Richard Ligon discussed this breed in Barbados and sketched it in his seventeenth-century map of the island (Ligon 1970).

The Spanish initiated the practice of using camels in sixteenth-century Peru as pack animals to carry heavy loads from the mountains and across the coastal desert. These camels did not arrive in the New World directly from Arabia but came from West Africa and the Atlantic islands offshore Senegambia. The English followed Spanish precedent, relying upon camels as transport animals in their sugar colony of Barbados in the initial decades of plantation development. Camels are pictured, with their enslaved African tender, on Ligon's map, which dates to 1647 (Fig. 2.4)

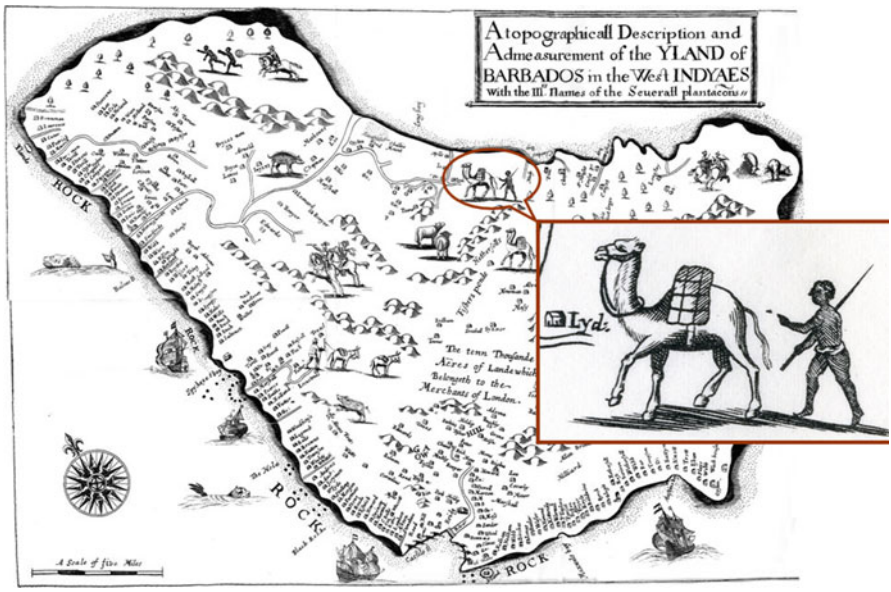

Fig. 2.4 Detail of Ligon's map of Barbados (Ligon 1970 [c. 1647], image at front of book)

(Ligon 1970). Camels had formed an important component of livestock herds in the semiarid region between Morocco and the Senegal River by the third century A.D. When the Spanish completed their conquest of the Canary Islands and its indigenous Guanche people in the fifteenth century, they raided the nearby African mainland (today's Morocco and Spanish Sahara, just 100 km away) for camels, cattle, sheep, goats, and slaves (Rumeo de Armas 1956, 115). Indeed, the mainland Berbers were known as skilled herdsmen. The camel's presence in Peru came to an end in 1615, when runaway slaves killed the last remaining specimen for food. But the use of camels continued in seventeenth-century Barbados and Saint Domingue (Crosby 1972; Mercer 1973; McClellan 1992).

African livestock were accompanied across the Atlantic by the indigenous grasses that were their natural fodder. Five African forage species arrived in this way (Table 2.1). The significance of Africa for their introduction is recognized in the names some of them still bear in colonial languages: *Guinea grass*, *Angola grass*. African pasture grasses likely dispersed on the hoofs of cattle, sheep, goats, and other introduced food animals to tropical America. Repeated introductions ensured the rapid dispersion of these grasses. Angola and Guinea grass were especially appreciated for their nutritive qualities and suitability for tropical cultivation (Parsons 1970). They were sown, cut, and transported to feed stabled dairy cows and horses in Brazil, Cuba, and many other parts of the New World tropics (Chase 1944; Debret 1954; Watts 1987).

The African Castor Bean: Contrasting Significance for Slaveholders and Slaves

The transatlantic slave trade also propelled diffusion to the Americas of several African plant species appreciated for their medicinal properties. These included tamarind, gum Arabic, bitter melon (*Momordica charantia*), melegueta pepper, kola nut, and castor bean plant. The castor plant was established at an early date in Brazil and introduced to Santo Domingo from Africa by 1509. It was present with the founding of the Puritan plantation economy on Providence Island the next century. Documents from the seventeenth century also indicate its presence in the Leeward Islands, Barbados, and Martinique (Piso 1957; Kupperman 1993; Watts 2000). Geographer David Watts called it a major agent of environmental change in the early settlement history of the West Indies (c. 1624–1645) (Watts 1987, 169). Albert Eckhout—a painter accompanying the scientific expedition to Dutch-occupied Brazil (1630–1654)—included the castor plant in his 1641 painting, *Mameluke with a Basket of Flowers* (Fig. 2.5) (Buvelot 2004, 57). Willem Piso, the expedition's naturalist, sketched and described a plant he considered native to tropical America (Fig. 2.6) (Piso 1957, 385–386).

The castor bean plant exemplifies a species that especially facilitated the transatlantic commerce in human beings. Slave merchants on both sides of the Atlantic

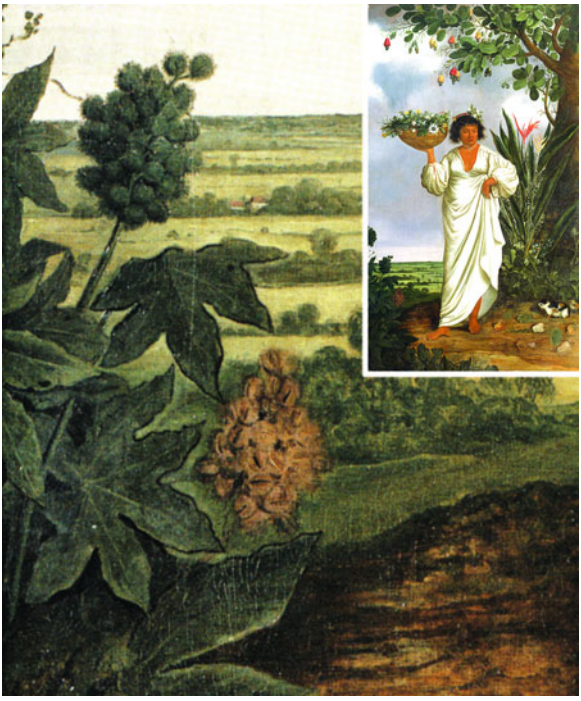

Fig. 2.5 Mameluke with a basket of flowers (Buvelot 2004, 57)

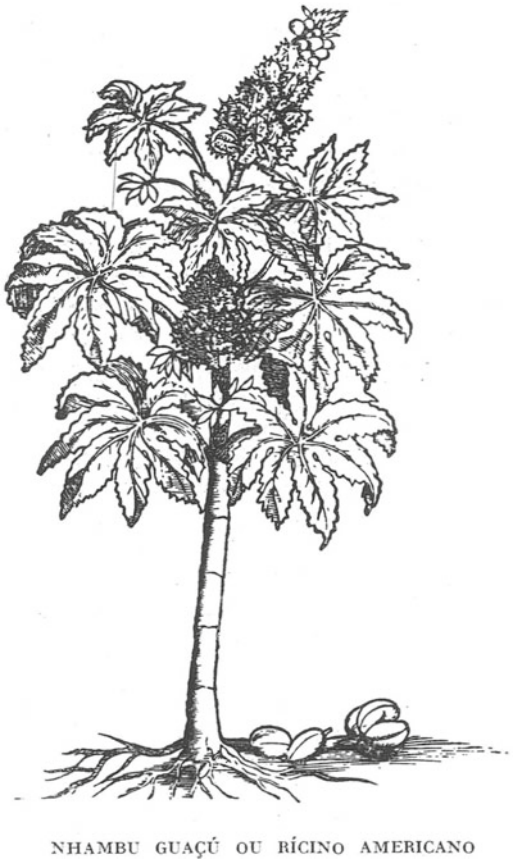

Fig. 2.6 Piso (1957[1645], 385)

learned to appreciate the medicinal properties of the castor plant. As a remedy for many afflictions suffered by captives kept in confined quarters, Jean Barbot in the 1670s noted its cultivation in the garden of the commandant of the slave depot on Gorée Island, Senegal (Barbot 1752, 31). Slave traders learned that the plant was a powerful purgative and could be used to treat skin ailments and head lice. But it was also important to the enslaved. Johann Moritz Rugendas makes this contrasting association explicit in two paintings he made in Brazil during the 1820s. *Novos Negros* reveals the significance of the castor plant to the slave trader. Rugendas illustrates newly landed Africans awaiting sale in a slave depot. One section of the painting shows a disconsolate man with shaved head (Fig. 2.7, left). Beside him is the castor leaf. By positioning the plant next to the African, Rugendas suggests its medicinal role in readying the man's enslaved body for sale, even if we do not know whether the plant was employed as a purgative, a skin treatment, or a delousing agent (Slenes 2002; Corrêa do Lago 2001, 189). In the second Rugendas painting, *Dwelling of Slaves*, the castor plant is once more featured with slaves but this time

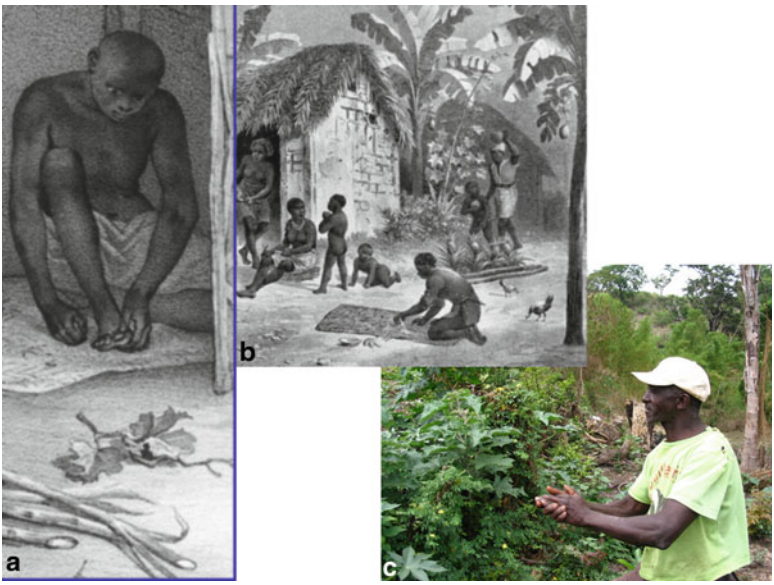

Fig. 2.7 (**a**) *Novos Negros* by Johann Moritz Rugendas (Reprinted in Corrêa do Lago 2001, 189). (**b**) *Habitação de negros* (Rugendas 1954, Plates 4/5, following p. 205). (**c**) Image taken by Judith Carney, October, 2005, Minas Gerais, Brazil

in a wholly different context (Fig. 2.7, center) (Rugendas 1954, 205). It is encountered as a crop in a slave dooryard garden (the castor plant is pictured to the right of the hut behind the water carrier and child). In this Rugendas painting, slaves are deliberately cultivating a multipurpose plant whose properties formed part of their shared ethnobotanical heritage (Carney and Rosomoff 2009).

Enslaved Africans in the Americas were well aware of the diverse uses of the castor plant, which is native to sub-Saharan Africa. They employed it to treat skin disorders, ophthalmic infections, venereal diseases, joint pain, gastrointestinal problems, and helminthic infestations. One observer of Jamaica's plantation society described slaves using castor oil to draw out the guinea worm from afflicted legs (Grimé 1979, 173). The distinctive appearance of the castor plant, its ubiquity in tropical plantation societies, and broad curative properties attracted the commentary of many European observers (Grimé 1979; Kimber 1988; Kupperman 1993; Watts 2000). One of them was Samuel Hazard, who traveled to Cuba in 1871, when slavery was still legal. Hazard noted that the castor bean "grows in great quantities all over these mountains, and is prepared by the superannuated negro women, who select the beans and clean them ready for extracting the oil." He marveled at the ability of one elderly slave woman to detect the best beans for expressing oil, even though she was blind. Figure 2.8 is the image he sketched of her (Hazard 1971, 469).

The castor plant was among several African botanical introductions that also became plantation commodities. In eighteenth-century Saint Domingue, plantations

Fig. 2.8 Woman sorting castor beans (Samuel Hazard 1971, 469)

grew it on vast acreages for lamp oil (McClellan 1992). In an era when candles were the only other source of illumination, the castor plant offered an important alternative. It is still planted for this purpose in some remote hamlets of Brazil that were founded by fugitive slaves (*quilombos*). In Minas Gerais, one elderly *quilombo* leader grows the castor plant in his kitchen garden for lamp oil to commemorate his ancestors (Fig. 2.7, right). João Ribeiro recounts the boyhood stories his great grandparents told him of the horrors of the Middle Passage crossing from Angola.[1] He lights the castor-oil lamp when offering devotional prayers to the family's protective saint. In the state of Maranhão, medicinal castor is frequently encountered in *quilombos*. In Bahia, as Robert Voeks observes in *Sacred Leaves of Candomblé*, it is an important plant in the religion's practice (Voeks 1997, 78–79; Pessoa de Barros and Napoleão 1998).

European commercial objectives do not alone offer a satisfactory explanation for the establishment of indigenous African plants in tropical America. Captains of slave ships certainly recognized the immediate value of stocking African dietary preferences as victuals for the Atlantic crossing and as medicines to maximize the survival of the human "commodities" they forcibly migrated to plantation societies. For slave-ship captains, the utility of African crops ended when their victims were disembarked and sold (Fig. 2.9). For the landed African captives, that utility was

[1] Nearly 40% of the slaves traded to the Americas went to Brazil, which exceeded more than three million Africans between the sixteenth and nineteenth centuries. Brazil was the last country in the Western Hemisphere to abolish slavery, which was decreed in 1888.

Fig. 2.9 Sea captains carousing in Surinam by John Greenwood, c. 1752–1758 (Reproduced with permission of the Saint Louis Art Museum)

never lost; it was recast and transformed in the plantation and mining societies of the New World. The familiar foods and medicines that accompanied them across the Middle Passage could now forestall hunger and treat ailments. Here a new narrative emerges, one that engages the role of enslaved Africans in instigating the cultivation of familiar plants in new lands.

Slave Agency in Instigating the Cultivation of African Foodstaples

Over 350 years of the transatlantic slave trade, it took an estimated 30,000 slave voyages to carry the 11 million Africans documented to have landed in the Americas (Eltis et al. 1999). In fact, until the first decade of the nineteenth century, more Africans arrived in the Americas than Europeans. The entire success of a slaving voyage, which might last several weeks or months, depended vitally on an adequate food supply to keep the captives alive en route. Although Amerindian maize and bitter manioc grown in Africa supplied some of the food demand, the provisions slave ships loaded in Africa also included African cereals and root crops. Significantly, despite the subsistence demands of the transatlantic slave trade, and the predations of the trade itself on the ablest segments of the population, societies of western Africa still managed to produce food in such quantity as to provision tens of thousands of slave voyages.

In the early colonial period, plantation owners encountered many new plants growing in the food plots of their slaves. Europeans referred to some species by geographical descriptors or toponyms that indicated their African provenance. Many of these dietary staples are still known in the Portuguese, Spanish, French, and

English languages by the place name "guinea," the name slave traders generally applied to the African continent. In English, we have guinea corn (sorghum), guinea sorrel (*Hibiscus sabdariffa*)—the plant that gives Red Zinger tea its color—guinea squash (*Solanum aethiopicum*), guinea melon (*Cucumis melo*), guinea pepper (*Xylopia aethiopica*), guinea grass (*Panicum maximum*), guinea yam (*Dioscorea cayenensis*), and even guinea fowl.

Other introduced African crops were named after specific African regions or slave ports, where surplus food was usually available and easily purchased for the Middle Passage. For example, the African pigeon pea was called Congo or Angola pea in English, *pois d'Angole* in French. One type of cooking banana or plantain is still known in Brazil as *banana* de *São Tomé*. In the former plantation areas of eastern Cuba, along Colombia's Caribbean coast, and in El Salvador, bananas are called *guineos*, after the region where Europeans first encountered the Old World tropical species.

Such toponyms draw attention to the importance of Africa as the source of food species critical to provisioning slave ships bound for the Americas. In this respect, slave vessels served as an inadvertent conduit for the introduction of African foodstaples to the Western Hemisphere. Even though not every slave ship stocked adequate food supplies, and most were consumed en route, leftover victuals were not an infrequent consequence of repeated Atlantic crossings.

Many of the plant introductions to tropical America are known in colonial languages by their African vernacular names. This draws attention to enslaved Africans who initiated their cultivation and to the sites in plantation societies where they established them. Plantation owners and European naturalists in the Americas encountered many novel plants in slave dooryard gardens and food plots. For the crops that had no existing words in European languages, they borrowed the names by which they were known to the slaves who grew and prepared them. Slave agency in the New World establishment of several introductions is suggested by the African loan words that were adopted by the colonial languages of former plantation societies. *Banana*, for example, is a word of African origin. So are yams and okra, and other plants grown in tropical America, such as *guandu*, *guandul*, *wando* (Portuguese, Spanish, and Dutch for the pigeon pea); *dendê*, *abbay* (Portuguese, Jamaican English for African palm oil); *quiabo*, *quingombó* (Portuguese, Spanish for okra); *bissy* and *eddo* (for kola nut and taro, respectively, in the English Caribbean); *pindal*, *goober* and *benne* (in South Carolina and the English Caribbean for the peanut and sesame, respectively) (Schneider 1991; Cassidy and LePage 2002; Carney and Rosomoff 2009).[2]

Many dish preparations of tropical America also carry African names. These include gumbo and the Caribbean one-pot stews known as *callaloo* and regional dishes that feature important dietary staples of Africa such as *mangú*, *mofongo* made

[2] A plant of South American origin, the peanut had not made it as far as mainland North America and parts of the Caribbean in pre-Columbian times. Established in Africa in the early sixteenth century, the peanut arrived in English plantation colonies as leftover provisions on slave ships. Slaveholders in these areas adopted the African names for a foodstaple with which slaves were quite familiar.

with plantains (Dominican Republic, Puerto Rico). A regional favorite of Maranhão, Brazil, is *arroz de cuxá* (rice with sorrel—the loan word *cuxá* deriving from West Africa's rice-growing Mandinka, who still cultivate and make several food preparations with sorrel, *Hibiscus sabdariffa*, which evolved among the local rice plantations whose slave populations included people from Senegambia and Guinea-Bissau). Until recently, Maranhão led Brazil in rice production by state, mostly by its mixed-race smallholders. In this former rice-growing area, *quilombo* descendants of runaway slaves narrate a history of rice beginnings. They attribute the crop's introduction to an enslaved woman who placed some rice grains in her hair as she disembarked the slave ship (Carney and Acevedo Marin 1999; Carney and Acevedo 2004; Carney 2004, 2005). Slave-ship captains often filled their stores with less-expensive unhusked grain from African rice-producing societies. Significantly, unmilled grain left from a slave voyage could have served as seed for planting.

In claiming an African woman initiated the cultivation of rice, the *quilombo* oral history offers a contrasting narrative to the Columbian Exchange, which acknowledges only the role of Europeans in disseminating and establishing plants on other continents (Carney 2001). The Maroon rice narrative substitutes the usual agents of global seed dispersal celebrated in Western accounts—European navigators, colonists, and men of science—with an enslaved African woman whose deliberate effort to sequester rice grains in her hair led to the establishment of an African dietary preference in tropical and subtropical America.

The *quilombo* rice account is also of significance because it identifies a slave ship as the conveyance for transatlantic seed transfers. The cereal grains, medicinal plants, and root crops occasionally remaining aboard slave voyages provided enslaved Africans opportunities to access familiar crops and to quietly cultivate them in their dooryard gardens and subsistence plots. In this way, slaves reinstated many African botanical species that were novelties to the plantation owners who held them in bondage.

While the slave ship served as the vessel by which African plants arrived in the Americas, the initiative for pioneering African foodstaples rested largely with slaves. This is because slaveholders did not readily adopt novel crops that they discovered in the food fields of their slaves. Just as the English in seventeenth-century Ireland scorned the New World potato as "Irish food," many African introductions were initially disdained by plantation owners as "slave food." The social and racial prejudice that divided slaveholders from those they enslaved also initially kept separate the foods they ate. But this wall of culinary segregation gradually disintegrated over time as signature ingredients of the African diaspora stealthily made their way into white kitchens and dining rooms (Wilson 1964). African foodstaples—among them, okra, greens, plantains, black-eyed peas, pigeon peas, sesame—infiltrated the cuisine of slaveholders through the dishes and confections their enslaved female cooks prepared for them. Today, we recognize such culinary signatures in the US South's *Hoppin' John* (made from rice and beans), *benne* (from sesame), hush puppies, and other deep-fried dishes known as fritters; the Caribbean pepper pot or *callaloo*, with greens as a prominent component as well as other one-pot stews featuring okra, such as the Louisiana *gumbo*; and *arroz de cuxá* (rice cooked with sorrel leaves), which is a regional favorite of Maranhão, Brazil.

Conclusion

The African crops carried to tropical and subtropical America during the slave trade owe their establishment to the first generations of Africans enslaved on New World plantations. Slaves grew these to ward off hunger, diversify their diet, reinstate customary food preferences, and to treat illness. The migrations of African plants in the period of plantation slavery are thus ineluctably tied to the institution and processes of the transatlantic trade in human beings. Slave ships carried Africa's botanical heritage, which gave uprooted Africans opportunities to establish them anew. In their dooryard gardens and food fields, slaveholders discovered them and at times even exploited their commercial potential (Carney and Rosomoff 2009).

Ownership of human beings imparted to slaveholders the right to appropriate the practices and cultivation methods that slaves used to secure their daily sustenance. Property rights gave plantation owners the power to claim that knowledge as their own and transmute it over time as proof of their presumed ingenuity. Slavery signifies not only an appropriation of the body and its labor but also the knowledge and ideas held by enslaved human beings. Significantly, it enabled the slaveholder to trade occasional favorable treatment for the knowledge and skills of the enslaved person's mind. This knowledge was crucial to the colonization of New World tropical lowlands.

A critical feature of human migration the world over is the preservation of traditional dietary preferences across space and the dislocations of geography. That the migration of Africans was compelled through extremes of violence and cruelty does not diminish this universal desire or preclude the possibility of achieving it. African staples enabled slaves at times to reinstate some food traditions of specific cultural heritages and to combine ingredients in new ways with Amerindian and European foods. In this way, slaves discretely modified the monotony of any food regimen slaveholders might impose. Africans and their descendants profoundly shaped the culinary traditions of slave societies, combining in new ways the foods of three continents in their struggle to secure daily sustenance. Through the dishes enslaved cooks prepared for their masters, African foods surreptitiously made their way onto planters' tables. In this way, the African plant introductions encouraged the distinctive—and today much celebrated—regional foodways that eventually developed across plantation societies. Africa's botanical legacy in the Americas is built upon this unacknowledged foundation.

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