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A M E R I C A N

curiosity

CULTURES OF NATURAL HISTORY in the
COLONIAL BRITISH ATLANTIC WORLD
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But with the changeful Temper of the Skies,
As Rains condense, and Sun-shine rarifies;
So turn the Species in their alter'd Minds,
Compos'd by Calms, and *discompos'd* by Winds.
—Virgil, *Georgics*, I (trans. [William Benson])

introduction

In 1761, a Swedish immigrant living in Dutch Surinam wrote a letter to his famous countryman, Carolus Linnaeus, telling him of the discovery of a South American root that was esteemed “for its efficacy in strengthening the stomach and restoring the appetite.” The discoverer of the root was, not the Swedish immigrant Mr. D’Ahlbergh, but instead a freed slave of local fame and, some would say, notorious reputation. Linnaeus named the tree *Quassia amara* in the African’s honor. In Surinam, where it became a major pharmacological export, it was called “Quassiehout” or “Kwasi-bita.” Because this former slave’s story diverges so dramatically from our current notions of an Enlightenment man of science, it bears telling in detail.¹

At his birthplace on the coast of Guinea circa 1690, he seems to have gone by the name Kwasi-mukamba of Tjedú, Tjedú probably signifying his father’s clan. After being enslaved and brought to Surinam around 1700, he became known to his masters and fellow slaves as either Kwasi or, more importantly, Gramman (or Great Man) Quacy. By the end of his turbulent life, when he was a free man living in his own planter’s house in Paramaribo with his own three slaves, he received letters from such places as the Hague and Uppsala addressed to “The Most Honorable and Most Learned Gentleman, Master Phillipus of Quassie, Professor of Herbology in Suriname.”²

We know of Kwasi’s history, on the one hand, from European sources,

1. [John] G[abriel] Stedman, *Narrative, of a Five Years’ Expedition, against the Revolted Negroes of Surinam*. . . , 2 vols. (London, 1796), II, 347. This edition differs markedly from Stedman’s 1790 manuscript, now housed at the James Ford Bell Library at the University of Minnesota and printed under the editorship of Richard Price and Sally Price in 1988. An abridged version of this authoritative edition is Price and Price, eds., *Stedman’s Surinam: Life in an Eighteenth-Century Slave Society: An Abridged, Modernized Edition of “Narrative of a Five Years Expedition against the Revolted Negroes of Surinam” by John Gabriel Stedman* (Baltimore, 1992) (see the note on 339–340 for details of Kwasi’s life). In 1869, the colony exported 245,622 kilos of *Quassia amara* for medicinal purposes and for making English beer. See Richard Price, *First-Time: The Historical Vision of an Afro-American People* (Baltimore, 1983), 155.

2. Price and Price, eds., *Stedman’s Surinam*, 340n.

in particular from the 1796 *Narrative, of a Five Years' Expedition, against the Revolted Negroes of Surinam*, written by the part Dutch, part Scottish John Gabriel Stedman, and, on the other hand, from late-twentieth-century descendants of escaped slaves, the Saramakas, who earned their freedom through armed struggle and negotiations with colonial authorities in 1762 and who have memorialized their "first-time," or pre-1800 history, through oral transmission. Kwasi was a principal healer and diviner for both slaves and colonials in Surinam, and, Stedman tells us, he was called a "locko-man, or sorcerer, among the lower slaves, [so that] no crime of any consequence was committed, especially at the plantations, but *Gramman Quacy* . . . was instantly sent for to discover the perpetrator." The slaves have so much "faith in his sorceries" that he need only look them in the face for the guilty party to admit the crime. He has "filled his pockets with no inconsiderable profit to himself; while his person by the blacks is adored and respected like a god." Stedman dismisses the "animating" *ôbias* (protective charms) that Kwasi dispenses to "his credulous votaries" as mere "trash" made of "small pebbles, sea-shells, cut hair, fish-bones, feathers, etc." but demonstrates their efficacy in colonial policy by describing the "barbacued hands" of two maroons, or long-term runaways, recently brought in by black rangers emboldened by Kwasi's charms. Kwasi was rewarded for his works by his colonial masters: around the time of his root discovery in 1730, he was given a golden breastplate with the inscription "Quassie, faithful to the whites" by a member of the Surinam Council and became the slave to Governor Johan Jacob Mauricius in 1744. Then, Stedman continues, Kwasi, "by his insinuating temper and industry, not only obtained his freedom from a state of slavery, but by his wonderful ingenuity and artful conduct found the means of procuring a very competent subsistence." In sum, Stedman took Kwasi to be "one of the most extraordinary characters of all the negroes men in Surinam, or perhaps in the world." The governor sent Kwasi to the Hague in 1776 to visit Willem V, prince of Orange. The prince gave him, among other presents, a suit of clothes made of blue and scarlet with gold lace trim. Stedman painted a watercolor of Kwasi in this suit, from which the poet-engraver William Blake made the somewhat satirical engraving included here (Figure 1). In this image, Kwasi would have been about eighty-six.³

To the Saramakas, Kwasi's story is not one of ambiguous "ingenuity and artful conduct" tempered by opportunistic loyalty. His is a tale of unmitigated betrayal. Kwasi's encounter with the Saramakas took place around

3. Stedman, *Narrative*, 346-348; Price and Price, eds., *Stedman's Surinam*, 340n.

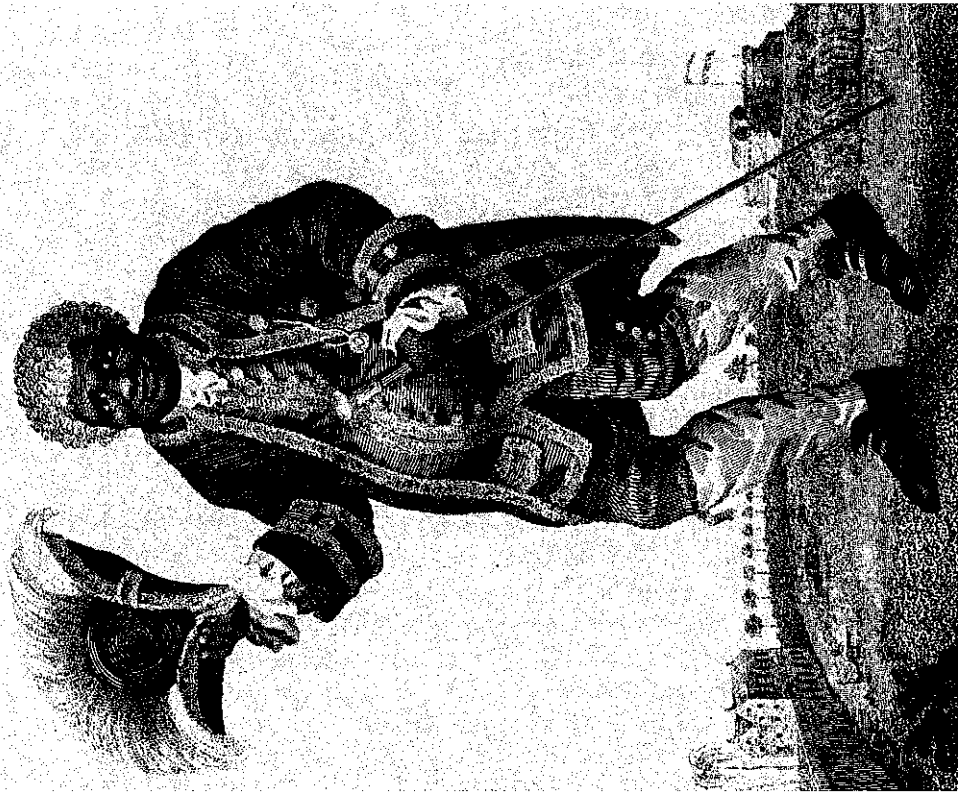


Figure 1. William Blake, The Celebrated Graman Quacy. Engraving from a watercolor by John Gabriel Stedman printed in *Stedman, Narrative, of a Five Years' Expedition, against the Revolted Negroes of Surinam . . .*, 2 vols. (London, 1796), II, facing 348. Courtesy, Special Collections Library, University of Michigan, Ann Arbor

1755 on the Baakawáta, a tributary of the Suriname River about three months' journey upriver from Paramaribo. Kwasi came to them pretending that he was their close friend (or *máti*) and that he wanted to know the secret of their chief Ayakó's óbia, which made him invulnerable. During Kwasi's stay, Ayakó received a warning from his niece, who related that the forest spirit, Wamba, had spoken in her head, saying, "Evil is on the way, beware." So Ayakó deceived Kwasi by telling him that "his power resided in the small stand of sugar cane" planted behind his house. Kwasi left the Saramakas and went back to the city. Soon enough, Wamba sang out a warning again in the niece's head, "Kwasímukámba tja'i kiba'mba": "Kwasímukámba is bringing the whites." The Saramakas hid at the edge of the woods where they watched the soldiers fire upon the supposedly magical sugarcane until all their ammunition was spent. At this point, the Saramakas emerged and slew the soldiers, all except for Kwasi; Ayakó grabbed him and "stretched his ear out hard. . . . Then he sliced it cleanly off! He said, 'Take this and show it to the white folks.'" "Kwasímukámba said, 'This is one hell of a thing for Kwasi-mukámba of Tjedót! When a person's ear is cut off, his face is spoiled!' And he left for the city." The modern Saramakas believe that Kwasímukámba is the reason one "must not trust them with a single thing about the forest. City people! They fought against us along with the whites." If you look closely at Blake's image of Kwasi, you indeed will not be able to find his right ear.⁴

Of these incidents, Kwasi related to colonial sources that he had been kidnapped by the Saramakas while looking for plant medicines on Cassewinica Creek until his "escape" about a year later back to slavery. He promised to lead the whites up the Suriname River but cautioned that the runaways have "instructions to poison the rivers and streams if the whites are seen to be coming." Captain E. G. Henschel, the leader of the expedition of five hundred men, told yet a different story: the runaways, rather than disfiguring but ultimately sparing Kwasi, instead "cursed [him] hideously" and demanded that the soldiers turn over "two kegs of powder and Kwasi." After many casu-

4. The late-twentieth-century Saramakas, in interviews over the course of about twenty years starting in the 1960s with anthropologists Richard and Sally Price, told a number of stories about their "first-time." One, in particular, which Richard Price calls "Kwasímukámba's Gambit, 1755," bears the kernel of their philosophy of mistrust of the outside world — of whites, of creoles, and of "City people." See Price, *First-Time*, 153–155; Price, *Atabi's World* (Baltimore, 1990), 33. On Kwasi's missing ear in the Blake engraving, see Price and Price, eds., *Stedman's Surinam*, 340n.

alties on both sides, according to Henschel, the colonial forces and Kwasi returned to the city.⁵

How should one read these conflicting accounts of Kwasi's life and dealings with various figures in the eighteenth-century transatlantic world? And what do his histories have to tell us about the making of Enlightenment knowledge in both imperial centers and in American colonies? First, Kwasi clearly knew how to operate within a number of communities, each with differing political objectives, cosmologies (ways of ordering spiritual and material realms), and epistemologies (ways of defining and evaluating knowledge produced in such a world). Kwasi knew that his European masters were, foremost, dedicated to turning the natural realm in Surinam into commodities that could be traded within a world market and hence needed to control the heated resistance of the enslaved and maroon populations in Surinam; he perceived, too, their interest in placing natural specimens into a universal system of organization. Kwasi also brought with him from Africa and saw reinforced around him, in the polyglot Afro-Surinam plantation and maroon cultures (which mixed variant retentions from Africa), a belief in a spiritually infused natural world ripe with both curative and toxic qualities that was wholly open to intercession by certain adepts. Kwasi functioned as such a revered adept within plantation culture, and no doubt he had sought out the Saramakas for what they could teach him about making powerful healing and harming medicine, which they, in turn, had partially learned from native people in the forest.

We can understand Kwasi as someone who knew how to switch between African and European modes and who knew how to make himself powerful in each world as he intimidated his fellow Africans and ingratiated himself with Europeans. More important, however, Kwasi shows us, in the colonial sphere and by extension the larger Atlantic world, the ways in which conjuring and scientific modes were by no means walled off from each other among imported African, displaced native, colonial European, and imperial European communities. Not only did colonials employ Kwasi to perform science in the classic Enlightenment sense — collecting and identifying specimens to be placed within global market and classification systems — but they consulted and rewarded him as an adept. That malleable spiritual-natural world, or *pharmacosm*, through which Kwasi gained stature as a conjurer had only officially lost credibility with European elites in the late seven-

5. Price, *First-Time*, 157, 158.

teenth century, and it continued to play a part in both settler and metropolitan cultures. Kwasi divined guilty parties on the plantation with his look, he "emboldened" black rangers hired by whites with his óbias, he directed European soldiers to fire upon a magical stand of sugarcane, and he healed and harmed for both black and white clients. Moreover, not only was he recognized locally for his work as both a conjurer and a naturalist, but his influence also stretched across the Atlantic: he traveled to the court of Willem V, his name was memorialized in the Linnaean system with *Quassia amara*, his story was told by Stedman, and his portrait was engraved by William Blake. Most significantly, had he not been efficacious in the pharmacosm of the Africans in Surinam and hence been positioned to become "Cranman Quacy," "faithful to the whites," he would never have been recognized so publicly as a naturalist in Europe.⁶

Kwasi was not just a pawn extending a European-defined order of knowledge, nor was he a lone conduit who all by himself allowed cultural currents to flow both ways. The currents were already crossing each other. Kwasi knew how to operate to his own advantage within such a complex culture, finding its opportunities and, for the most part, avoiding its dangers. In the eighteenth century, it was most of all in the American colonies where one found such complexity of aggravated intercultural contact. Here peoples who had developed in isolation and at great distances from each other were brought together, both voluntarily and involuntarily, often to unfamiliar environments, to live and to make societies over a sustained period. Because the development of modernity itself and of Enlightenment natural science in particular was so fueled by the European nations' competitive drive to exploit, collect, catalog, and understand the material richness of the Americas, both American nature and the hybrid types of knowledge forged in the colonies were inseparable from that development. In the past, this Atlantic transformation into modernity has been mythologized as the triumphant westward expansion of European civilization. More recently, it has been critiqued as a process of European cultural hegemony that proceeded hand

6. Religious historian Theophus H. Smith, in his *Conjuring Culture: Biblical Formations of Black America* (Oxford, 1994), coined the terms "pharmacosm" and "pharmacopic cosmos" to describe the way that African American cultures in the nineteenth and twentieth centuries read the Bible through the African practices of conjure; I am using it for this earlier period because it aptly describes not only the African but also the native and popular settler communities' spirit-infused sense of a nature open to the magical practices of a human adept.

in hand with empire. By contrast, *American Curiosity* argues that, because America was a great material curiosity for the Old World and its immigrants to the New, America's unique matrix of contested knowledge making—its polycentric curiosity—was crucially formative of modern European ways of knowing.⁷

The American colonies, as places of intense epistemological struggle and negotiation, are especially relevant to the study of the history of the Enlightenment. British America, we now appreciate, was not necessarily exceptional as an inventor of representative government or republicanism (which it inherited conceptually from late-seventeenth-century England and the classical Mediterranean world); rather, it was exceptional as a meeting place or battleground for once distant peoples, microbes, plants, and animals that produced a strange new world for all. These complex, interwoven movements of knowledge and biota made America, not a naked continent awaiting European cloth—as many promoters of colonization represented it—but a place for the fabrication of facts that traveled eastward to avid consumers. America did not receive modern civilization passively. Various people in the Americas participated not only in the creation of material prosperity in Europe through their labors with American natural resources but

7. Examples abound from the contact period forward of Europeans and Euro-Americans who touted colonization as civilization; for a summary of the Translatio Studii British theory of empire in the eighteenth century, see David S. Shields, *Oracles of Empire: Poetry, Politics, and Commerce in British America, 1690–1750* (Chicago, 1990), 16. The argument for the unidirectional power of metropolitan science to remake the imperial periphery in its own image is best exemplified by Mary Louise Pratt's *Imperial Eyes: Travel Writing and Transculturation* (New York, 1992). Though Pratt borrows from anthropology the concept of "transculturation," she only addresses such transcultural moments at a couple of brief points in the text (5, 35, 102, 135). In the eighteenth century, Alexander Garden seems initially to support the science-as-imperial thesis, writing to Linnaeus in 1755 after receiving a shipment of Linnaeus's books: "Furnished with these arms, I am preparing to make war upon the Vegetable kingdom, and to submit the lofty honours of the forests to the rule and authority of Botanic Science" (Garden to Linnaeus, Apr. 2, 1755, *CLO*, I, 289). Yet counterbalancing this agonistic statement was Garden's practice of admittedly relying on Indian, enslaved African, and female knowledge in his collecting as well as his proffering specimens as stand-ins for himself in European centers. On the way colonial scientists' empirical observations of tropical island environmental thresholds corrected and restrained imperial European fantasies about island Edens in the seventeenth century, see Richard H. Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens, and the Origins of Environmentalism, 1600–1860* (Cambridge, 1995), 63–72.

also in the creation of an empirically based and hence locally divergent and complex type of nature-knowledge. To put it another way, so many people in Europe cared about the knowledge produced from such social and geographical contacts because the Americas were tied up with the very birth of modern curiosity itself. The specimens that tacked eastward across the Atlantic—hummingbirds, opossums, rattlesnakes, giant bones, potatoes, tobacco, brazilwood, hammocks, skirts wrought from porcupine quills, and Kwasi-bita—were a major material source, from 1492 onward, for the development of botany, pharmacology, zoology, paleontology, geology, and ethnology, among other sciences. Because Europe came in many ways to depend on the matter the Americas provided not only to drive its economies forward but simultaneously to expand its knowledge of the complexity and variety of nature, European elites needed, despite their propaganda, to accept and to credit the hybrid knowledge that emerged from the Americas. Colonial subjects in America were not mere collectors for the knowledge makers of the metropole. European correspondents depended upon locals for their kinds of expertise: identifying a novel specimen, understanding its properties or behavior, reporting on or depicting the specimen in its live and natural context, or seeing the interdependence of plants and animals.⁸

This argument does not deny European domination of the Atlantic world in the period between 1500 and 1800 but posits that the public metropolitan face of science, including its promotional verse and iconography, existed in tension with its diffuse day-to-day practices. It involves thinking of society, whether metropolitan or colonial, as always negotiating between rising and declining cosmologies and epistemologies as these are reflected in marginal and dominant social groups. It tries not to read backward into the late seventeenth and mid-eighteenth centuries conditions (of fixed racial concepts, of United States nationalism, of professional secular science, for example) that began to pertain only in the late eighteenth century. In short, this argument

8. On the conceptual dependence of the United States documents demanding representational government on those of the Glorious Revolution in England, see Pauline Maier, *American Scripture: Making the Declaration of Independence* (New York, 1997). John Bartram first noted the interdependence of plants and animals in the American colonies and communicated it to Peter Collinson, who wrote back to Bartram in 1737: "The ballance kept between the Vegetable and Animal productions is really a fine Thought and what I never met with before, but it is more remarkable with you than with us for you have Wild animals and mast in greater plenty than Wee have" (*CJB*, 67).

gives weight to the historically finite, to conditions that did not prevail, or, as Alan Taylor has put it, to balancing "the creative tension between teleology and contingency."⁹

For Michel Foucault, the practice of natural history in the eighteenth century represented the eradication of history, fable, hearsay, anatomy, smell, and touch from a field of knowledge restricted to a surface visibility and a language shorn of memory. Between the Renaissance and the evolutionary theories of the nineteenth century, there existed, according to Foucault, an *épistème* (a discourse and practice by which knowledge grounds "its conditions of possibility") that made viable a "pure tabulation of things." For Max Weber, Theodor Adorno, and Max Horkheimer, the Enlightenment brought about "the disenchantment of the world." For feminist historian of science Carolyn Merchant, this period saw "the Death of Nature," when a ludic, organic, and respected Natura was subjected to a more detached God who authorized the human exploitation of his realm. The American colonies both support and disrupt such historiography of the European Enlightenment.¹⁰

Europeans responded to the material richness of the Western Hemisphere by a multipronged and multistaged process of "thingification" (to use Aimé Césaire's word): harvesting beaver pelts and cod, mining silver and gold, imposing European names, cartographic lines, and fences on the land, and enslaving native peoples and Africans. Yet amid what the Europeans called "improvement" and what is now understood as appropriation were other practices and mentalities. There were both residual European and Euro-American as well as strong but challenged indigenous and Afro-American beliefs in the potency of nature and the efficacy of the invisible world. Gift cultures of both colonials and colonized sustained themselves alongside emergent capitalism. And, finally, not only were there Indian and African American writers who ironized and resisted imperial representations of knowledge and nature, but there were Euro-Americans, themselves also colonized politically, economically, and culturally (albeit to a quite dif-

9. Alan Taylor, *American Colonies* (New York, 2001), xv.

10. Michel Foucault, *The Order of Things: An Archaeology of the Human Sciences* (New York, 1973), xxii, 131; Max Horkheimer and Theodor W. Adorno, *Dialectic of Enlightenment*, trans. John Cumming (New York, 1972), 3; Carolyn Merchant, *The Death of Nature: Women, Ecology, and the Scientific Revolution* (San Francisco, Calif., 1980), esp. 41, 172, 193.

ferent extent), who participated in what Roland Greene has called “thinking alongside the colonial enterprise” in both a “constructional” and “critical” manner.¹¹

Not only were these complex practices and mentalities locally present, but they were being embedded in and sent—in letters, reports, catalogs, histories, travel narratives, sketches, and watercolors—back to metropolitan centers where they asserted their strangeness, or their lingering familiarity. Though the naming of *Quassia amara* was part of the “tabulation of things,” it did not reduce language to a mere citation of a visible structure of a tree. That binomial term also bore traces of history and of invisibility—of Kwasi-mukamba of Tjedi’s transformation into Master Phillipus of Quassie and of a way of discovering the invisible healing properties of plants that he learned beginning in Africa but developed in Surinam. The Enlightenment is decipherable only if we look beyond Europe to understand these colonial traces within the published metropolitan record.

Understanding how non-European knowledge was consulted and incorporated in the colonies and how much these practices were encouraged by many European naturalists will enable us to read the metropolitan-issued iconography and promotional material for what it was. We can understand that this public imaging of Enlightenment science was not showing what those naturalists in European centers believed to be an unchallenged cultural self-replication from center to periphery. Instead, these images and texts reflect a struggle within institutional science between, on the one hand, acknowledging the influence of the polycentric curiosity of the colonies on its own fact-building practices and, on the other, envisioning science as part of the imperial “improvement” of non-European spaces.

Take, for example, the two engravings that stood as introductory images to Dutch naturalist Albert Seba’s four-volume *Locupletissimi rerum naturalium thesauri accurata descriptio*, an encyclopedic collection of natural history descriptions and images published between 1734 and 1765 (Figures 2, 3). The first shows the allegorical figure of Industria (signified by the bee-hive just behind her), enlightened by a love of knowledge and a desire for immortality (Death’s scythe is pointed downward), accepting nature’s offerings from the four continents. Europa, bearing a cornucopia, is closest at hand. Then, farther away we see America (with feathered coverings), Asia

11. Aimé Césaire, *Discourse on Colonialism*, trans. Joan Pinkham (1950; rpt. New York, 2000), 42; Roland Greene, “Colonial Becomes Postcolonial,” *Modern Language Quarterly*, LXV (2004), 423–441 (quotations on 425–426).



Figure 2. Industria. Frontispiece to Albert Seba, *Locupletissimi rerum naturalium thesauri accurata descriptio*, et iconibus artificiosissimis expressio, per universam physices historiam (Amsterdam, 1734–1765). Courtesy, Special Collections Library, University of Michigan, Ann Arbor

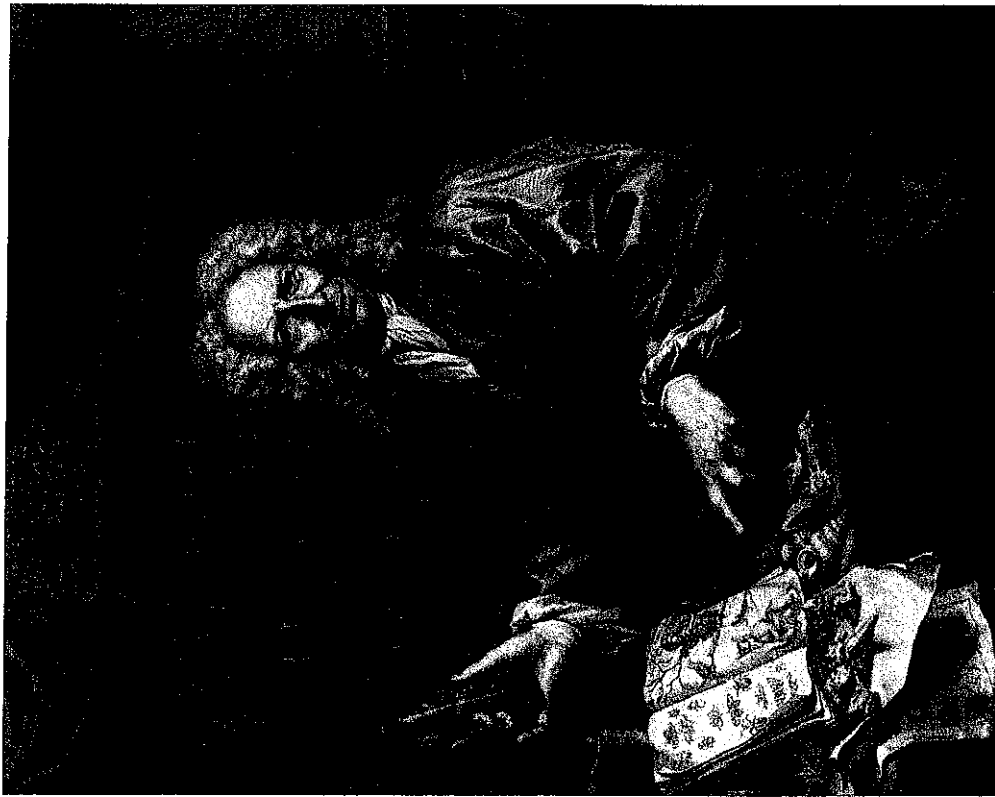


Figure 3. Albert Seba. *Frontispiece (facing title page) to Albert Seba, Locupletissimi rerum naturalium thesauri accurata descriptio, et iconibus artificiosissimis expressio, per universam physices historiam (Amsterdam, 1734-1765)*. Courtesy, Special Collections Library, University of Michigan, Ann Arbor

(wearing a bejeweled and plumed turban), and Africa (crowned by an elephant's trunk). Between Europe and the other three continents appears the figure of a mediator (the winged head might signify the presence of Hermes in his role as messenger, herald, or conductor of travelers). In the foreground are the animals, vegetables, and fossils that constitute the objects of Industria's studies, and in the background are the ships of global navigation and collection whose mobility makes more monumental and central the institution of science revealed behind the curtain.

One need hardly say that this image is Eurocentric: Industria and Europa are closely associated at the center and are seen as inheritors of a classical, even immortal, stature, while the other three continents huddle worshippingly at the margins, bearing their gifts. Indeed, read through Christian rather than classical antecedents, this image reveals itself to be no less than a restaging of the Nativity. What is being born here, however, is, not a specific human savior, but rather the collective European endeavor we now call the New Science. Earthly Industry, nonapocalyptic Time, and the studious cherub at their feet have replaced the Holy Family. Europa and the mediator have stepped into the sandals of the pastoral shepherds, though their charge is gathering in the roving well-loaded ships off the Atlantic rather than sheep off the pastures. And exotic America, Asia, and Africa have replaced the Magi as they bring tributes to the newly apotheosized modern order.¹²

Flipping over the leaf upon which this image is engraved, the reader encounters the realization of such a vision: Seba, the naturalist, surrounded by his collection. Here is metropolitan science in the flesh. The wig, the finely wrought linens, and the voluminous robe announce the genteel status

12. Albert Seba, *Locupletissimi rerum naturalium thesauri accurata descriptio, et iconibus artificiosissimis expressio, per universam physices historiam*, 4 vols. (Amsterdam, 1734-1765). The Royal Society of London for Improving Natural Knowledge was officially founded on November 28, 1660, when twelve naturalists met at Gresham College after a lecture by Christopher Wren. Original members included Wren, Robert Boyle, John Wilkins, Sir Robert Moray, and William, Viscount Brouncker. It received its name in 1661 and its first royal charter to publish in 1662. The term "New Science" indicates the burgeoning of scientific activity beginning around 1650 in England, marked by the founding of the Royal Society, the Society's adoption of Baconian empiricism and experimentation, and the beginning of its global correspondence and collecting network as well as its use of the mechanical philosophy. Key figures of the New Science include Boyle, Robert Hooke, Wren, Sir Isaac Newton, and Sir Hans Sloane. The central apologist of the New Science was Bishop Thomas Sprat. See Sprat, *The History of the Royal-Society of London, for the Improving of Natural Knowledge* (London, 1667).

of his person. The rows of glass specimen bottles behind his head assure the reader of the well-stocked and orderly repository that is Seba's mind. His engaged glance along with his active hands, pointing at and grasping the visual and physical material in the foreground, together demonstrate a central mandate of the empirically oriented New Science in its repudiation of book-bound Scholasticism, namely: "He before his sight must place / The Natural and Living face; / The real Object must command / Each Judgement of his Eye, and Motion of his Hand." Lastly, the neoclassical column and opened drapes signify institutional stability founded upon principles of full disclosure. Here is a theater of self-evidence.¹³

If we study only the institutional rhetoric of cosmopolitan science, our reading cannot extend much beyond this point. Once we appreciate how both European collections and publications drew from colonial and non-European testifiers and collectors, however, we can perceive in the allegory of Industria an unresolved evaluation. The image then seems to ask: Are these figures on the margin just stand-ins for their alluring continents? Do they represent only the physical *stuff* these exotic geographic locales are worshipped and providentially offering up to modern inquiry? Or, appearing as human travelers—even as Magi—at a critical crossroads of knowledge production, are they being acknowledged as necessary participants in the making of the New Science? Why does the illustration depict a precolo-

13. Abraham Cowley, dedicatory poem, in Sprat, *History*, [vii]. Simon Schaffer, in "Self Evidence," *Critical Inquiry*, XVIII (1992), 327-362, argues that, in seventeenth-century experimental science, a dialectic between the body of the genteel experimenter and the body of the scientific society ultimately stabilized the scientist's private evidence; the end of the eighteenth century saw a shift to the "disembodiment of the scientist and the embodiment of skill within the scientific instrument" (330). For a collector like Seba, his authority is derived from his genteel person theatrically displayed and equally from the extent, the organization, and the display of his collection. Studies in the social history of science in general have focused on metropolitan or court science for the seventeenth and eighteenth centuries. See Steven Shapin, *A Social History of Truth: Civility and Science in Seventeenth-Century England* (Chicago, 1994), 238. See also Mario Biagioli, *Galileo, Courtier: The Practice of Science in the Culture of Absolutism* (Chicago, 1993), 90, on aristocratic patronage networks; Peter Dear, ed., *The Scientific Enterprise in Early Modern Europe: Readings from Isis* (Chicago, 1997); Nicholas Jardine, James A. Secord, and Emma C. Spary, eds., *Cultures of Natural History* (Cambridge, 1996); Jan Golinski, *Science as Public Culture: Chemistry and Enlightenment in Britain, 1760-1820* (Cambridge, 1992); Larry Stewart, *The Rise of Public Science: Rhetoric, Technology, and Natural Philosophy in Newtonian Britain, 1660-1750* (Cambridge, 1992).

nial equation between bodies and continents (before Africa, Europa, and America were all mixed up on western shores)? Does this reconnection of peoples with their places of origin give them a cultural credibility that the politics of empire was destroying in the Atlantic world? Does the allegory want to forget the confusing dislocation of bodies and bodies of knowledge brought about by colonialism? Or does it imagine this dislocation instead as a converting convocation? Do the female figures of Europa and Industria merely exist as icons of places and qualities, or do they represent female participation in and patronage of scientific inquiry? Although this image of Industria does not go so far as to depict the wages of intercultural exchange, as does William Blake's engraving of Kwasi (whose person bears the marks of both assimilation and mutilation), it nevertheless envisions the birth of science as predicated upon a heterocosm of specimens and people.

As *American Curiosity* argues for the critical importance of the Americas in shaping Enlightenment methods and systems, it looks specifically at two central issues: one, *how* subjects of the British Atlantic world made knowledge about and representations of American nature in the colonial period, especially between the 1660s and the Revolutionary War, and, two, *what* overlapping and conflicting facts and representations they made. Thus, it is both a social history of knowledge making and a cultural history of representations. It looks at people, artifacts, and the natural world. The people encountered here are as far-flung as a lieutenant governor of New York and his daughter, a Congregational minister in Boston, an aristocratic plant collector in the suburbs of London, a Wampanoag powwow from Martha's Vineyard, a farmer on the Schuylkill River in Pennsylvania, an apothecary in London, a female planter in Charleston, South Carolina, and an enslaved African on the Caribbean island of Providence. The correspondence and specimen exchange networks that made up the day-to-day sources of transatlantic natural history, though influenced by hierarchies of gender, class, institutional learning, place of birth or residence, and race, were nevertheless accessible to such a range of people in the colonies because they could supply novel information or specimens from the American side of the Atlantic.

Empiricism was made up of what Francis Bacon called the difficult "woods and inclosures of particulars." Both Bacon and his devotees at the Royal Society of London believed that practitioners of natural history needed to balance their inclination to synthesize matter into laws with continual collection and scrutiny of more matter. Royal Society promoter Thomas Sprat directed naturalists to "heap up" nature's particulars into "a mixt Mass of *Experiments*, without digesting them into any perfect model,"

and to render "bare unfinished Histories." Natural historical knowledge was not to tie itself up in a false certitude or closed system. It was to avoid the great error of those Scholastic disputants who had long dominated the universities, namely, letting the Word obscure the world. Because "Histories" were being formulated in an ever-expanding field of specimens, systems of facts had to continually submit themselves to matter's surprises. This fragmentary, theoretically inchoate, specimen-centered quality of empiricism made local expertise and local access in non-European places crucial to the Enlightenment's laborious reckoning of worldwide matter.¹⁴

Access, though, was never simple. For each colonial or colonized person who sought to participate in the curious world, there was a confusing terrain of both exclusion and inclusion to navigate. The political realities of empire created a hierarchy of rights and of personhood that privileged Englishmen in England and situated, at the lowest rung, New World slaves as property. Transatlantic print culture sometimes reinforced such a hierarchy and at other times contradicted it. Institutions of the New Science publicly endorsed an imperial worldview. Even if the empirical method made English naturalists *practically* open to and even dependent upon Indian, enslaved African, and colonial female and male observers in the New World, this laterality of knowledge exchange took place within a political hierarchy. Thus, these more or less questionable participants in Enlightenment science developed rhetorical strategies to frame their own knowledge or the knowledge of their informants. Of interest to us, then, is not only what informants were saying about nature but also how they were positioning themselves as informants through the natural world.

Many literate male colonials, deeply influenced by environmentally based humoral theory, negatively imagined their bodily, mental, and cultural metamorphosis—their creolization—in the New World. Their anxiety about being made less than English in the wilds of America made them vulner-

14. James Spedding, Robert L. Ellis, and Douglas D. Heath, eds., *The Works of Francis Bacon*, 14 vols. (1857–1874; rpt. Snitgard, 1962), IV, 370; Francis Bacon, *The Advancement of Learning* (1605), 3d ed., ed. William Aldis Wright (Oxford, 1876), book 1, 30–32; Bacon, *Novum Organum* (1620), trans. R[obert] Ellis and James Spedding (London, 1905); aphorism 19 declares that the "true way" of knowledge "as yet untried" "derives axioms from the senses and particulars, rising by a gradual and unbroken ascent. So that it arrives at last at the most general axioms last of all" (64). Altering Bacon's metaphor of a gradual ascent toward axioms, Thomas Sprat imagined cycles in which a prior synthesis of matter would be overturned by the new questions and searches generated from that synthesis; see Sprat, *History*, 31.

able to accepting the often condescending English promotional portrait of knowledge. Some colonial writers did essentially say that they could not possibly produce knowledge in America. Theirs was too young a society; they did not have enough time or proper instruments; they were too far from London.

And yet there was an importantly divergent response to this threat of what Cotton Mather direfully called "criolian degeneracy": turn nature into an asset. Colonial men and women used novel or beautiful specimens of American nature to prove to themselves and to their metropolitan correspondents that they were *not* in an uncouth periphery and were *not* any less astute or curious than their friends in London. Colonial men were receiving mixed messages from transatlantic print and epistolary cultures, namely, that their curiosity was either inferior or, conversely, better situated than naturalists in England. Through countless shippings of quadrupeds, amphibians, fish, seeds, stones, drawings, and letters, colonial men navigated this mixture of metropolitan hauteur and encouragement to arrive at something Benjamin Franklin could call by 1753 "our American philosophy."¹⁵

Colonial women also received conflicting messages about their curiosity, namely, that it could be either "fatal" or improving. They had seen the persistent allegorization of "Nature" as a naked female body laid open to male investigation. And they had read the lampoons circulating around the Anglophone Atlantic about the regrettable state of creoles in America. Colonial women responded to this challenging cultural environment by sending or carrying birds to London, by reporting on the effects of earthquakes using other female informants, by drawing pictures of astral phenomena for their brothers to present to the Royal Society, or by writing pastoral poetry to friends. Sometimes they participated in science while demurring their own capacities. Other times they saw "Nature" as a luminary that shone especially for women. Though they were part of the making of knowledge about American nature between the 1660s and 1760s, they were not to be institutionally included in that "American philosophy" emerging alongside colonial agitation. As institutional opportunities for American men increased in the 1760s, curiosity became more fraught for women owing to the new national insistence on "female virtue."

Indians and Africans posed a special challenge for the New Science, for

15. Cotton Mather, *The Way to Prosperity*, in A. W. Plumstead, ed., *The Wall and the Garden: Selected Massachusetts Election Sermons, 1670–1775* (Minneapolis, Minn., 1968), 137; Benjamin Franklin to Cadwallader Colden, April 1753, *LPCC*, IV, 382.

they seemed both closer to nature and hence most able to know nature's hidden processes, but they also operated within a magical worldview that elite colonials and Londoners had publicly disavowed. Indians and Africans collected specimens, testified about topography, the migrational patterns of birds, ways of planting tropical crops, methods of inoculation, and, most of all, the healing and poisonous properties of plants. Certain types of facts, if they did not originate with an African or an Indian, had no credibility. Of course, the English worldview posed all kinds of challenges to the cosmologies of displaced native Americans and enslaved Africans. Both groups wrangled with the difficulties the colonizing curious Christians presented to their nature-dwelling gods and their practices of reciprocity with nature.

The genres and the media through which observers made knowledge about American nature were manifold. There was the informal and frequent exchange of letters between long-standing correspondents, both male and female. These were likely to be one-to-three-page-hodgepodge descriptions of whatever the American correspondent had observed since his or her last letter. They often accompanied or gave notice of shipped specimens. The metropolitan correspondents wrote back with the latest scientific news, with effusive thanks for the specimen gift, with more requests, and often sent back either English flora or exotic flora recently arrived in London. Letters to figures like Linnaeus or Royal Society secretaries or letters that initiated a correspondence tended to be more decorous or at least coherent performances of the colonial writer's assiduous curiosity. Because the Society's journal, *Philosophical Transactions*, was composed of the letters it received, private epistolary shaded rather subtly into formal publicity. Although women's letters and drawings, enfolded in letters of a male go-between, were deposited at the Royal Society, they were not printed, though engravings of their specimens were. Natural histories, a very popular print genre, were descriptive prose catalogs of the flora, fauna, and often exotic human inhabitants of specific geographical places. These tended to be written more by metropolitan travelers, promoters of colonization, or synthesizers rather than by colonials themselves. Beginning in the 1700s, in fact, descriptions of colonials or creole inhabitants were often included within the section on humans native to a given place. Travel narratives and even satirical travelogues usually included descriptions of local nature. These tended to emphasize the presence, observations, feelings, and predicaments of the author, whereas natural histories acted as if nature were organizing and describing itself. Early novels that developed from the travel narrative genre and the practices of epistolary — such as Aphra Behn's *Oroonoko* (1689) —

also included accounts of American flora and fauna. Even sermons (that remarked on dramatic natural events like earthquakes and comets), settler captivity narratives (that described trials in the wilderness), and black Atlantic autobiographies (that mixed and complicated the captivity, conversion, and travel narrative genres) all included in varying ways descriptions of natural events, places, and particulars. Last, pastoral and georgic poetry engaged with American environments even as they classicized them. All of these written genres — along with the oral testimonies, conversations, and specimen gathering behind them — made up what is here broadly called *the cultures of natural history* in the Anglophone Atlantic world.

In geography, the extent of English curiosity about the New World was large. In the late sixteenth and seventeenth centuries, hopes for a Northwest Passage and the general novelty of the Americas to the English made all the American latitudes compelling. Beginning in the late seventeenth century, the southern colonies and the Caribbean became especially key zones of nature inquiry and collection, primarily because of their semitropical or tropical climates and hence extreme biological difference from England. Also, their planters' unrivaled accumulation of wealth and reliance on an enslaved labor force generated the leisure (or felt moral imperative) to pursue "disinterested" natural history. Apothecary James Petiver's list of correspondents and collectors in the American colonies from 1689 to 1716 quickly reveals the importance of this region to London's virtuosi (the name for practitioners of science in the late seventeenth and eighteenth centuries). Of the eighty-four men and women listed, fifty-four were from or traveled through South Carolina and the Caribbean, whereas only three were from Massachusetts, and one was from Pennsylvania. Despite the historical penchant for seating the nation's religious, intellectual, and political traditions in Boston and Philadelphia, the British Empire in the Augustan period, through its mercantile and scientific networks, took a greater interest — in both senses of the word — in a more southerly America.¹⁶

16. Raymond Phineas Stearns, "James Petiver: Promoter of Natural Science, c. 1663-1718," American Antiquarian Society, *Proceedings*, LXII, pt. 2 (1952), 359-362; Perry Miller, *Errand into the Wilderness* (Cambridge, Mass., 1956); Miller, *The New England Mind: From Colony to Province* (Cambridge, Mass., 1953); Miller, *The New England Mind: The Seventeenth Century* (Cambridge, Mass., 1939); Alan Heimert, *Religion and the American Mind: From the Great Awakening to the Revolution* (Cambridge, Mass., 1966); Sacvan Bercovitch, *The Puritan Origins of the American Self* (New Haven, Conn., 1975); Bercovitch, *The American Jeremiad* (Madison, Wis., 1978). See David S. Shields's con-

Bringing the natural world more centrally into histories of culture makes particular historiographic sense for colonial America and the early nation. In North America before 1800, almost all questions of culture circulated through nature: Crèvecoeur wrote in his *Letters from an American Farmer* (1782) that "men are like plants" and hence constituted from the local air, water, soil, and sun. He believed that cold, rugged climates produced virtuous hardworking citizens, whereas hot climates necessarily produced the monstrous twins of tyranny and slavery. Crèvecoeur stood at the end of a long tradition of theorizing about the climate's effects on race, sex, intelligence, generation, politics, and cultural achievement. Early national promotional writers held up virginal and vast American nature as a superior matrix for national virtue. Less sanguine colonial writers were obsessed with diagnosing their own creolization, and they did so especially by reading and making signs from the natural world.¹⁷

Not only were all seventeenth- and eighteenth-century subjects aware of natural cycles and capacities in a way hard for twenty-first-century first world citizens to grasp, but subjects in colonial America were particularly alert to the workings of the natural world. Europeans and Africans confronted the both disorienting and promising novelty of the American environment while native Americans witnessed in dismay the changes wrought on their bodies and environs by these otherworldly newcomers. People of all origins in colonial America — whether because of their belief in humoral theory or in a pharmacosm — recognized the power of the inspirited natural world to

tion that this focus on New England in American literary studies is owing to critics' overemphasis on print culture (*Oracles of Empire*, 4–6). Many literary anthologies dealing with the period before 1800 have tried to situate American, even United States, cultural history in a broader, more comparative way. Historians have not traditionally focused so exclusively on New England but nevertheless have tended not to look beyond the coastal section from Massachusetts to Virginia; see Alan Taylor, *American Colonies*, x–xiii.

17. J. Hector St. John [M. G. St. J. de Crèvecoeur], *Letters from an American Farmer* . . . (1782), ed. Albert E. Stone (New York, 1986), 71. Recovering the centrality of nature for culture is the primary concern of ecologically informed literary criticism, or ecocriticism. See Glen A. Love, "Revaluing Nature: Toward an Ecological Criticism," *Western American Literature*, XXV (1990), 201–215; William Howarth, "Some Principles of Ecocriticism," in Cheryl Glotfelty and Harold Fromm, eds., *The Ecocriticism Reader: Landmarks in Literary Ecology* (Athens, Ga., 1996), 69–91; and Lawrence Buell, *The Environmental Imagination: Thoreau, Nature Writing, and the Formation of American Culture* (Cambridge, Mass., 1995), 1–27.

both harm and heal them. Because the environment was taken to be so formative of identity and because of their varied experiences of environmental disorientation, humans in the colonies needed to extend their curiosity to orient themselves anew. More than in other places, extending curiosity in America meant relying upon other peoples' alternative knowledge practices.

The century spanning from the 1660s to the Revolutionary period witnessed the rise of the British Empire and empiricism in the Atlantic world, the growth of a collective creole self-consciousness, and the maintenance of ideologies about human difference that were elastic enough to make significant exchanges of knowledge between variant groups possible. The incorporation of the Royal Society of London for Improving Natural Knowledge in 1662 spawned a London-centered global epistolary network of natural history. Colonial naturalists, in dynamic conversation with the metropole, created their own short-lived scientific societies beginning in the 1680s until they established an enduring institutional American center of curiosity in the American Philosophical Society of Philadelphia in the 1760s. The British extended their political reach all along the eastern seaboard of North America from Acadia to Florida with the conquest of New Netherland in 1667 and the founding of Charleston, South Carolina, in 1670. In the ensuing years, the crown consolidated its economic and political control over the separate colonies. The first half of the eighteenth century represented the "Long Peace" for the variously confederated native peoples east of the Mississippi, who, as long as they lived inside a ring of competing imperial powers, could finesse their sovereignties. Although the Treaty of Paris of 1763 more than doubled British territory in North America and ousted the French from the continent, it marked for native peoples the replacement of complex multinational tensions with a racially constituted and westward-moving boundary line.¹⁸

For the history of Africans in America, this century saw London's commitment to the English (as opposed to the Dutch) slave trade with the establishment of the Company of Royal Adventurers into Africa in 1663. It also witnessed the movement from a "frontier phase" of American slavery in the South in the last third of the seventeenth century, where frontier labor was

18. The American Philosophical Society was first founded in 1743, but it was not until the 1760s, when it merged with the American Society and in 1771 started publishing its *Transactions*, that it achieved lasting significance. See Taylor, *American Colonies*, 246–261; Daniel K. Richter, *Facing East from Indian Country: A Native History of Early America* (Cambridge, Mass., 2001), 187.

more multiethnic (African, Indian, and indentured European), to the establishment by the 1760s of black majorities of creole (as opposed to African-born) slaves increasingly perceived to be anatomically inferior to whites. An Anglo-American creole self-consciousness first stirred in the 1660s, marked, for example, by New England's Half-Way Covenant of 1662, that made a native-born generation of New English distinct from their founding English forebears. Divergent colonial cultures issuing from divergent English and northern European roots gradually developed commonalities. The Great Awakening of the 1740s, the Seven Years' War (1756–1763), and an imported culture of Britishness all combined to provide cohering experiences along the eastern seaboard. Although colonials understood that sense of coherence as British for many decades, the majority came eventually to see their identities and, even more so, their interests as distinctly American.¹⁹

Before the foundation of the nation, with its investment in anatomically based polarities of race and sex and its pursuit of territorial immensity, knowledge making about American nature took place across inchoate and, hence, permeable boundary lines. The English were so curious about America — so eager to see and possess its natural splendors — that they made themselves in practice open to any testifier or collector who could satisfy that curiosity through his or her better situation. Colonials, only partly familiar with their environs, needed the guidance, assistance, and keen observance of any who could show themselves qualified. Empiricism, in this regard, gave authority where political empire took it away. Both colonials and metropolises could assuage their anxieties about relying on “heathens” by calling up ideas of precolonial human sovereignties, such as those represented in the four continental figures of Industra. Africa and America bore an ancient integrity, whereas the slaves and savages produced by empire did not. Indians and the enslaved in this period likewise were influenced by the knowledge ways of once-distant strangers. Contact for these groups produced both the loss and the extension of their prior epistemology. In this ambivalent state, they were nonetheless able to find opportunities for their expertise within

19. Philip D. Morgan, *Slave Counterpoint: Black Culture in the Eighteenth-Century Chesapeake and Lowcountry* (Chapel Hill, N.C., 1998), 16; Richard S. Dunn, *Sugar and Slaves: The Rise of the Planter Class in the English West Indies, 1624–1713* (Chapel Hill, N.C., 1972), 20; Jack P. Greene, *Imperatives, Behaviors, and Identities: Essays in Early American Cultural History* (Charlottesville, Va., 1992), chap. 6; Richard L. Bushman, *The Refinement of America: Persons, Houses, Cities* (New York, 1993), xii.

empire's own ideological inconsistencies. To study the transatlantic cultures of natural history in this period is not to watch the English create modernity singlehandedly, whether in epic triumph or brutal domination. Instead, one sees how various peoples, issuing from around the Atlantic world, made facts about America in vexed chains of communication.