In January of 1494, Christopher Columbus found himself in the disagreeable position of having to explain to the Catholic monarchs Ferdinand and Isabella why so many of the European settlers on the Caribbean island of Hispaniola had fallen sick and died. The explanation was simple, but it had alarming implications for the nascent Spanish colony: Europeans did not thrive in the very different environment of the New World. The “change in water and air,” Columbus believed, was the principal cause of the dreadful ailments afflicting the small Spanish settlement. Fortunately, he explained, the mortality would cease once the settlers were provided with “the foods we are accustomed to in Spain.”1 European food, Columbus insisted, would counteract the deleterious effects of the New World environment and make feasible the dream of colonization. He was not alone in this belief. Columbus’s assertion that European food was vital to the survival of such settlements forms part of a vast current of discourse that links diet to discussions of Spanish health, Indian bodies, and overseas colonization. Diet was in fact central to the colonial endeavor. As we shall see, food played a fundamental role in structuring the European categories of “Spaniard” and “Indian” that underpinned Spain’s colonial universe in the early modern era. Beyond this, attending to food’s place within that universe illuminates the profound but incompatible desires that characterized Spain’s colonial mission, which sought simultaneously to make Amerindians like Europeans and to keep them separate.

Many aspects of early modern colonial expansion proved unsettling for its European protagonists. The encounter with entirely new territories and peoples raised doubts about the reliability of existing knowledge and also posed theoretical and practical questions about the proper way for Europeans to interact with these new peoples and places. Far from being an enterprise based on an unquestioning assumption of European superiority, early modern colonialism was an anxious pursuit. This anxiety is captured most profoundly in the fear that living in an unfamiliar environment, and among unfamiliar peoples, might alter not only the customs but also the very bodies of settlers. Perhaps, as Columbus suspected, unmediated contact with these new lands would weaken settlers’ constitutions to such an extent that they

1 Christopher Columbus, “Memorial que para los Reyes Católicos dio el Almirante a don Antonio de Torres” (January 30, 1494), in Ignacio Anzoátegui, ed., Los cuatro viajes del almirante y su testamento (Madrid, 1971), 158. See Noble David Cook, “Sickness, Starvation and Death in Early Hispaniola,” Journal of Interdisciplinary History 32, no. 3 (2002): 349–386, for discussion of the ill-fated settlement.
died. Or perhaps it might instead transform the European body in less lethal but equally unwelcome ways, so that it ultimately ceased to be a European body at all.

Scholars have long recognized the challenges that unfamiliar climates, in particular, were believed to pose to the European body, and lately several attempts have been made to link such early modern concerns about colonial environments to the emergence of racial ideologies. The transformation of looser medieval concepts of difference into rigid nineteenth-century models of “race” has often been attributed to the impact of colonialism on European thinking, but scholars have generally viewed this transformation as a modern, rather than early modern, phenomenon. Attempts to connect European anxieties about colonial environments in the sixteenth and seventeenth centuries with the evolution of racial ideologies appear to have revolutionized this chronology. For example, the historian Jorge Cañizares-Esguerra has proposed that sixteenth- and seventeenth-century Spanish colonists (and their descendants) articulated an early form of embodied racial discourse in their efforts to explain the supposedly different impact of the New World climate on Europeans and Amerindians. He asserts that settlers posited a radical discontinuity between European and indigenous bodies because they could not otherwise account for the fact that Europeans appeared to thrive in the American environment while Amerindians sickened and died. European and indigenous bodies, he suggests, therefore began to be conceptualized as incommensurably different and fundamentally incomparable. Cañizares-Esguerra’s attention to the significance of climate and indigenous health in the early colonial era has been mirrored in scholarship on England’s North American colonies. Joyce Chaplin, in particular, has advanced similar arguments about the attitudes of English settlers in seventeenth-century Anglo-America. These scholars, in short, argue that “race”—a fixed, bodily condition—began to emerge in the early colonial era as a result of Europeans’ encounter with the New World’s climate and inhabitants.

Such research highlights the dilemmas that overseas colonization posed to Europeans, and helpfully refocuses attention on the fact that early colonial actors ascribed great significance to the differences they perceived between their bodies and those of Amerindians. Nonetheless, it accords a disproportionate importance to cli-

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2 “It was the colonial encounters which produced a new category, race,” writes Catherine Hall; “Introduction: Thinking the Postcolonial, Thinking the Empire,” in Hall, ed., Cultures of Empire: Colonizers in Britain and the Empire in the Nineteenth and Twentieth Centuries—A Reader (New York, 2000), 19. For a pithy review of the debate over colonialism and the origins of race, see Kathleen Wilson, The Island Race: Englishness, Empire and Gender in the Eighteenth Century (London, 2003), 11–15.

mate as a challenge to the European body. Climate was but one of a number of forces believed by Europeans to affect health and character, and it does not assist our analysis of the early modern colonial experience to isolate climate from these other forces. In particular, we should not overlook the role of food. Food was in fact central to the early modern discourses about human difference that structured European efforts at understanding the Americas and their inhabitants. When we attend to the place of food within these discourses, it becomes clear that fluidity, rather than fixity, was the hallmark of the early modern body, and that this fluidity had striking implications for the coherence of colonial ideology.

Food shaped the colonial body in a number of ways. To begin with, the right foods protected Europeans from the challenges posed by the New World and its environment. Spaniards believed that they would not suffer from the excessive damp and dangerous heavens of the Americas if they ate European food. For this reason, colonizers and settlers in sixteenth- and seventeenth-century Spanish America were consistently concerned about their ability to access European foodstuffs, and generations of chroniclers noted the deleterious effect of the indigenous diet on Europeans unwise enough to consume it. More fundamentally, food helped create the bodily differences that underpinned the European categories of Spaniard and Indian. Spanish bodies differed from indigenous bodies because the Spanish diet differed from the Amerindian diet, but these differences were by no means permanent. Bodies could be altered just as easily as could diets.

In other words, the role of diet is considered here not in the performance of European colonial identity, but rather in the construction and maintenance of the Spanish body. By probing the space that early modern Spaniards imagined to exist between their bodies and those of Amerindians, we can measure the distance that separated the one from the other and map the routes whereby one could begin to transform into the other, using a variety of sixteenth- and seventeenth-century sources. This chronological span captures the era in which the principles of humorality governed European understandings of the body, which provide a coherence in regard to ideas about corporeality notwithstanding the many transformations undergone by Spanish and colonial society during this period. The many sources that illuminate this topic, which range from medical handbooks and legal treatises to chronicles and official and private letters, were of course written to serve different purposes, and we should not assume that they form part of a coherent corpus of discourse as regards their ostensible subjects. Nonetheless, one feature they share is a vision of the human body as essentially porous, in active dialogue with its environment. Indeed, it is precisely through the analysis of a range of disparate sources that we have the best opportunity to uncover early modern body concepts. The

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4 My focus here is the attitudes of Spanish settlers, but there is every reason to believe that colonists from other parts of Europe held similar opinions. For suggestive analysis of the attitudes of settlers in British colonies, see Trudy Eden, “Food, Assimilation and the Malleability of the Human Body in Early Virginia,” in Janet Lindman and Michele Tarter, eds., A Center of Wonders: The Body in Early America (Ithaca, N.Y., 2001), 29–42; and Susan Scott Parrish, American Curiosity: Cultures of Natural History in the Colonial British Atlantic World (Chapel Hill, N.C., 2006), esp. 77–102.

5 Humoralism’s period of dominion is discussed in Nancy Siraisi, Medieval and Early Renaissance Medicine: An Introduction to Knowledge and Practice (Chicago, 1990); and Lawrence Conrad, Michael Neve, Vivian Nutton, Roy Porter, and Andrew Wear, The Western Medical Tradition, 800 BC to AD 1800 (Cambridge, 1995).
broader implications of these concepts can then be considered in light of the contradictory aims at the heart of early modern colonialism.

Spaniards who traveled in the Indies in the early modern era quickly determined that Amerindian bodies differed from their own in all sorts of ways. Indians were somewhat darker-skinned and had distinctively straight hair, and the men generally lacked beards. In addition, they suffered less from stomach ailments, were generally timid, rarely went bald, and almost never developed gallstones. Spaniards, in contrast, were of a proud nature, possessed light skin and delightful beards, and were afflicted by numerous digestive disorders. Such differences were evident to all: “it is clear,” noted the German physician Nicholas Pol, “that the climate, bodies, complexions, etc. of the Spaniards are different from those possessed by the Indians.” Learned men generally categorized Indians as phlegmatic, according to the tenets of humoral theory. This made Amerindians similar to women, who were also believed to be phlegmatic, although some argued that Indians were instead melancholic. In any event, everyone agreed that they were different from Spaniards, who were choleric. The melancholy and phlegmatic Indians

6 Francisco López de Gómara, Historia general de las Indias (1552; repr., Barcelona, 2006), 62, 131, 149, 337, 372–373 (chaps. 26, 68, 79, 193, 216); Juan de Matienzo, Gobierno del Perú, ed. Guillermo Lohmann Villena (1567; repr., Paris, 1967), 16–17; Diego Durán, Historia de las Indias de Nueva España e islas de la Tierra Firme (ca. 1570), ed. Angel Garibay, 2 vols. (Mexico, 1967), 1: 5 (prologue to vol. 1); Lope de Aitzena, Compendio historial del estado de los indios del Peru (1583), published as an appendix to J. Jijón y Caamaño, ed., La Religión del imperio de los Incas (Quito, 1931), 58–60 (chap. 10); Juan de Cárdenas, Problemas y secretos maravillosos de las Indias (1591; repr., Madrid, 1945), 219 (book 3, chap. 11); Agustín Farfán, Tractado breve de medicina (1592; repr., Madrid, 1944), 1–3 (book 1, chap. 1); Baltasar Dorantes de Carranza, Sumaria relación de las cosas de la Nueva España (1604), ed. José María de Agreda y Sánchez (Mexico, 1970), 63; Gregorio García, Origen de los indios del Nuevo Mundo, ed. Franklin Pease (1607; repr., Mexico, 1981), 70–74; Juan de Torquemada, Monarchia indiana, en el qual se declaran los mysterios de la Fe (Seville, 1615), 2: 609–614, 620–621 (book 14, chaps. 18, 19, 24); and Bernabé Cobo, Historia del Nuevo Mundo (1653), in Cobo, Obras, ed. Francisco Mateos, 2 vols. (Madrid, 1956), 2: 10–14 (book 11, chaps. 2–3). Note: I have included the book, chapter, and part numbers for many of the primary sources in parentheses, to make it easier for others to locate this material.

7 Nicholas Pol, On the Method of Healing with the Indian Wood called Guaiac the Bodies of Germans who have Contracted the French Disease (1517), in Max H. Fisch, ed., Nicolaus Pol, Doctor, 1494 (New York, 1947), 59.


9 For the view that Amerindians were phlegmatic, see Francisco Hernández, Antigüedades de la Nueva España (ca. 1574), ed. Ascensión H. de León-Portilla (Madrid, 1986), 97 (book 1, chap. 23); Francisco Cervantes de Salazar, Crónica de la Nueva España (ca. 1560) (Madrid, 1914), 30 (book 1, chap. 16); “Relación de la ciudad de Guamanga y sus términos” (1586), in Marcos Jiménez de la Espada, ed., Relaciones geográficas de las Indias: Perú, 3 vols. (Madrid, 1965), 1: 185; Luis Heironymo de Ore, Symbolo catholico indiano, en el qual se declaran los mysterios de la Fe (Lima, 1598), 30r; García, Origen de los indios del Nuevo Mundo, 72–74; Atienza, Compendio historial, 29–30, 131 (chaps. 3, 35); and Gerónimo de Mendieta, Historia eclesiástica indiana (ca. 1596), ed. Joaquín García Icazbalceta (Mexico, 1971), 222, 438 (book 3, chap. 17; book 4, chap. 21). For Amerindians as melancholy, see Durán, Historia de las Indias de Nueva España, 1: 5 (prologue to vol. 1); Diego Cisneros, Sitio, naturaleza y propiedades de la ciudad de México (Mexico, 1618), 112r (chap. 17); Matienzo, Gobierno del Perú, 16; and Atienza, Compendio historial, 132 (chap. 35). For Amerindians as phlegmatic and sanguine, see Henrico Martínez, Reportorio de los tiempos e historia natural desta Nueva España (1606; repr., Mexico, 1991), 282, 281; and Cobo, Historia del Nuevo Mundo, 2: 15–16 (book 11, chap. 4). Bartolomé de las Casas, who argued for the Indians’ superior nature, insisted that they were sanguine, “which is the most noble of all the four complexions,” while Diego Andrés Rocha, who believed that they were descended from Spaniards, said that they, like their Iberian ancestors, were choleric. See Bartolomé de las Casas, Apologética historia
were therefore constitutionally quite unlike the choleric Spaniards. Why, however, were they so different?

Undoubtedly, one of the reasons Indians and Spaniards were so different was that they lived in very different environments. Early modern medical thinking accorded a central role to climate in shaping constitutions and bodies. Climate, for example, was thought to play a key part in determining skin color. The Spanish Dominican Gregorio García, writing in the early seventeenth century, explained that Ethiopians had dark skin, although they were, like all men, the sons of Noah (who was presumed to have been white), because they lived in the heat of the torrid zone. “There is nothing new in men changing the color of their body, and their hair, in conformity with the climate of the region where they live,” he observed. In addition to provoking changes in skin and hair color, climate was also believed to affect individual health. As a consequence, educated Spaniards living in the Americas were highly attuned to the potential impact of the air, stars, and temperature, which were liable to provoke all sorts of undesirable transformations. This fear was well expressed by the Spanish physician Francisco Hernández, who in the 1570s served as New Spain’s protomédico, or chief medical officer. “Let us hope that the men who are born [in Europe] and who begin to occupy those regions, whether their parents are Spanish or of different nations, do not in obedience to the heavens degenerate to the point of adopting the customs of the Indians,” he noted in his study of New World materia medica.

The clearest evidence for the deleterious impact of the American climate was provided by Amerindians themselves. Virtually all European writers of the time believed that Amerindians had at some point in the past migrated to the Americas from the Old World. The precise place of origin and the mode of transport remained in dispute, but Christian teaching made it clear that all men were descended from a common ancestor. Hence it was important to explain why people who had originated in the Old World now differed so much from the Spanish in both behavior and appearance. For example, Spaniards asked themselves, why did Amerindian men generally lack beards? In an extensive discussion of this question, Gregorio García hypothesized that the hot, moist climate of the New World impeded the growth of

\[ \text{sumaria (ca. 1552), in Las Casas, Obras escogidas, ed. Juan Pérez de Tudela Bueso, 5 vols. (Madrid, 1958), 3: 124 (chap. 37); and Diego Andrés Rocha, El orígen de los indios, ed. José Alcina Franch (1681; repr., Madrid, 1988), 215. For the Spanish complexion, see Cárdenas, Problemas y secretos maravillosos de las Indias, 175, 179 (book 3, chaps. 1–2); Cisneros, Sitio, naturaleza y propiedades, 112v (chap. 17); Martínez, Reportorio de los tiempos, 262, 281; Ore, Símbolo católico indiano, 30r; Mendieta, Historia eclesiástica indiana, 222, 438 (book 3, chap. 17; book 4, chap. 21); and Agustín de Vetancur, Teatro mexicano (1698; repr., Mexico, 1971), 12 (tratado 1, chap. 6).} 


\[ 11 \text{García, Orígen de los indios del Nuevo Mundo, 69 (book 1, chap. 23); emphasis added. Or see Baltasar Álamos de Barrientos, Discurso político al rey Felipe III al comienzo de su reinado, ed. Modesto Santos (Madrid, 1990), 16.} \]
facial hair. This raised the terrifying prospect that the Spanish, too, might lose their prized beards as a result of living in the same environment. (Beards were considered a signal mark of manhood by early modern Spaniards. Writers insisted that they were a gift from God to beautify and adorn the male face.)

Yet help was at hand. García explained that this alarming possibility was in fact remote. The Spanish were unlikely to lose their beards because the “temperance and virtue that the Spaniards born in the Indies inherited from their fathers and grandfathers” were continually reinforced through the consumption of Spanish food. Their constitution, he explained, was protected by “good foods and sustenance such as lamb, chicken, turkey, and good beef, [wheat] bread, and wine, and other nourishing foods.” This long list consists almost entirely of Old World foods that had been lacking in the New World before the arrival of Europeans. Indians therefore could not possibly have protected their beards from the destructive effects of the American climate, all the more so given that the foods that were available were singularly inadequate, consisting as they did of cassava, potatoes, sweet potatoes, and other foods “of very little nourishment.” It was through eating this inadequate food, as much as through the impact of the climate, that the Indians had lost their Old World temperament. The result was the disappearance of their beards. Climate was thus important in shaping bodies, but so too was diet. The Spanish chronicler Gonzalo Fernández de Oviedo, who after many years’ residence in the Caribbean composed a lengthy “official” history of the New World in the mid-sixteenth century, explained this clearly when he listed the challenges posed to novice conquistadors. On arriving in the Americas, he wrote, they would find themselves obliged to “fight in such different airs and in such strange regions, and with such different foods.” Food could not be separated from the environment. Colonial writers throughout the sixteenth and seventeenth centuries agreed that “those who come from other climates through [eating] new foods generate new blood, which produces new humors, [and] the new humors [create] new abilities and conditions.” A change in food, like a change in climate, was liable to provoke a change in both body and character. Food, in other words, helped distinguish Spaniard from Indian, but it could just as easily turn proud, bearded Spaniards into timid, beardless Indians. Such corporeal differences were real, but impermanent.

These attitudes reveal the widespread dissemination of an understanding of the human body based fundamentally on the principles of humoral theory. Learned thinking in the early modern period held that good health required a balance of the

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13 Cárdenas, Problemas y secretos maravillosos de las Indias, 188 (book 3, chap. 4); Atienza, Compendio historial, 59, 133 (chaps. 10, 35); and Londa Schiebinger, Nature’s Body: Sexual Politics and the Making of Modern Science (London, 1994), 120–125. Indigenous people, too, seem to have viewed the beard as a distinctive Spanish trait. See, for example, Titu Cusi Yupanqui, History of How the Spaniards Arrived in Peru (1570), ed. and trans. Catherine Julien (Indianapolis, 2006), 10, 18 (chap. 2).

14 García, Origen de los indios del Nuevo Mundo, 70.

15 Ibid.

16 Gonzalo Fernández de Oviedo, Historia general y natural de las Indias, ed. Juan Pérez de Tudela Bueso, 5 vols. (1535–1557; repr., Madrid, 1959), 2: 358 (book 23, chap. 3). Vetancurt, Teatro mexicano, 11 (tratado 1, chap. 6). This is a paraphrase of Martínez’s 1606 treatise, which Vetancurt cites as a source. Or see Juan Huarte, Examen de Ingenios; or, The Examination of Mens Wits (London, 1594), 21–22; Miguel de Cépeda Santa Cruz. December 9, 1626, Santa Fe, Archivo General de la Nación, Bogotá, Colonia Médicos y Abogados 11, 853r; and Parrish, American Curiosity, 79. I am grateful to Linda Newson for the reference to Cépeda.
four humors that governed the body: blood, phlegm, black bile, and yellow bile, each of which was associated with relative degrees of heat, cold, dryness, and moisture. Individuals possessed a particular humoral makeup that helped determine their “complexion,” a term that referred equally to their character and their bodily qualities. Each person was born with a particular complexion, but a variety of external forces could alter one’s humoral balance. Climate (“air”) was one of them; food was another. These, together with levels of exercise, sleep and wakefulness, evacuation (which included such things as bloodletting), and the emotions, constituted the “six non-natural things” whose impact on human health and character most early modern scholars regarded as profound. This significance of the six non-naturals was explained clearly by the German cosmographer Henrico Martínez, who spent a number of years in Mexico City in the late sixteenth century. In his 1606 Reportorio de los tiempos e historia natural desta Nueva España, Martínez asked why it was that people living under the same stars might have different complexions. The answer, he explained, was that complexion was determined by many factors, including “the diversity of the foods with which people sustain themselves,” different exercise regimes, and different emotional states, not to mention the fact that it tended to alter during the course of an individual’s life. These factors together explained the great variety in complexions and characters within a single locale.

Food, in other words, played an important role in maintaining a healthy complexion and in correcting imbalances. Phlegmatic people, who were excessively cold and damp, could improve their condition by eating hot, dry foods such as black pepper. Melancholics (cold and dry, and governed by black bile) were advised to eat hot, moist foods such as sugar. A change in diet, like a change in environment, could transform an individual complexion. Such transformations, however, were fraught with danger. Giovanni de Medici, for instance, was held to have expired in 1463 as a direct result of drinking excessive quantities of cold water, which induced a phlegmatic complexion. Only with great care should people use diet—or indeed any other non-natural intervention—to alter their basic complexion, thereby acquiring a “second nature.”

The human body was thus in a state of constant flux; the complexion needed to

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18 For an introduction to humoral theory and its links to diet, see Galen, Galen on Food and Diet; Ken Albala, Eating Right in the Renaissance (Berkeley, Calif., 2002); and Peña and Girón, La prevención de la enfermedad. For the influence of humoralism in Spain and its colonies, see J. M. López Piñero, Ciencia y técnica en la sociedad española de los siglos XVI y XVII (Barcelona, 1979); Luis Grangel, La medicina española renacentista (Salamanca, 1980); George Foster, Hippocrates’ Latin American Legacy: Humoral Medicine in the New World (Amsterdam, 1994); Enrique González González, “La enseñanza médica en la ciudad de México durante el siglo XVI,” in Juan Comas, Enrique González, Alfredo López Austin, Germán Somolinos, and Carlos Viesca, El mestizaje cultural y la medicina novohispana del siglo XVI (Valencia, 1995); Luis García Ballester, La búsqueda de la salud: Sanadores y enfermos en la España medieval (Barcelona, 2001); and Linda Newson, “Medical Practice in Early Colonial Spanish America: A Prospectus,” Bulletin of Latin American Research 25, no. 3 (2006): 377–386.

19 Martínez, Reportorio de los tiempos, 303; Cárdenas, Problemas y secretos maravillosos de las Indias, 179 (book 3, chap. 2); and Cisneros, Sitio, naturaleza y propiedades, 46r, 52r, 58r, 77r–85v, 108v, 114r (chaps. 9, 11, 15–17). For other New World medical texts based on the tenets of humoral theory, see Alonso López [de Hinojoso], Summa, y recopilación de chirugía, con un arte para sa[n]gar muy útil y provechosa (Mexico, 1578); Farfán, Tractado breve de medicina; and Gregorio López, Tesoro de medicina para diversos enfermedades (1673; repr., Madrid, 1708). Las Casas offered an extensive discussion of humoral theory, including the importance of diet, in his Apologética historia sumaria, 3: 72–140, esp. 73, 86, 105–106 (chaps. 23–41).

20 Albala, Eating Right in the Renaissance, 50–51.
be maintained through an individualized regime of diet, exercise, purging, and rest. Moreover, because of the influence of food and air on the human constitution, bodies, far from being hermetically sealed off from the outside world, were continually open to the impact of their external environment. “All bodies are Transpirable and Trans-fluxible, that is, so open to the ayre as that it may easily passe and repasse through them,” noted the English medical writer Helkiah Crooke in 1615. Indeed, as Gail Kern Paster has observed in her study of humorism in early modern England, “solubility” was the “sine qua non of bodily health.”

This solubility, however, was capable of provoking quite dramatic transformations, such as had occurred when the ancestors of the Amerindians first migrated to the Indies. Humoral bodies—and for early modern Europeans, all bodies were humoral—were thus inherently unstable and mutable.

Travel to new environments—whether to a different city or a different continent—which subjected the body to unfamiliar climates and constellations and to unusual foods, therefore required particularly careful attention. Even travel within Europe posed serious challenges to individual health. Sixteenth-century English travelers in Spain fretted about the impact of alien airs and foods in much the same manner as did Spanish settlers in the Caribbean. Any change in location, in other words, could easily place an individual’s health at risk. It is little wonder that Spanish settlers in the Indies worried about their diet.

Humoral theory thus provided a model for explaining why Indian bodies and the bodies of Spaniards resident in the Indies were different, despite the common environment. They differed because they lived under different exercise regimes (Indians were generally acknowledged to be more active), and, critically, because they ate different foods.

This view was offered as an ad hoc explanation for the Indian character from the earliest days of the conquest. The inhabitants of the Caribbean, noted the Italian Michele da Cuneo, who accompanied Columbus on his second voyage, were “cold people, not very lustful, which is perhaps a result of their poor

21 Helkiah Crooke, 
Mikrokosmographia: A Description of the Body of Man (London, 1615), 175; and Gail Kern Paster, 

22 J. N. Hillgarth, 

23 The only example I have found in which the different humoral makeup of Indians and Spaniards is not ascribed at least in part to the consumption of different foodstuffs is Cobo. He noted that although Spaniards and Indians lived together in the same environment and used “the same water and almost the same foods,” there were great differences between them. He nonetheless concluded that it was impossible to determine whether Amerindians’ character and appearance was the result of “their natural complexion, or their food and drink”; 
Historia del Nuevo Mundo, 2: 13, 16 (book 11, chaps. 3–4). Juan de Cárdenas appears similarly to discount the importance of food in shaping complexion in one passage of his Problemas y secretos maravillosos de las Indias, where he asserts that Amerindians and Europeans “use the same waters and even the same foods.” In fact, as this claim dramatically contradicts his repeated insistence that food was one of the key features shaping complexion, it is clear that in this instance Cárdenas was aiming to focus attention on the very specific argument that he posited to explain Amerindian men’s lack of beards; ibid., 185 (book 3, chap. 4). For the centrality of diet, together with exercise and the frequency of sexual acts, in shaping complexion elsewhere in Cárdenas, see ibid., 179, 184, 210, 219 (book 3, chaps. 1, 2, 3, 9, 11). Some writers stated that it was impossible for mortals to understand why color varied so much among people, concluding that it was a mysterious act of God. See, for example, López de Gómara, 
Historia general de las Indias, 372–373 (chap. 216); Cobo, 
Historia del Nuevo Mundo, 2: 11 (book 11, chap. 1); and Torquemada, 
diet.” The importance of diet, alongside climate, in differentiating Spaniards from Indians was explained with great clarity by Diego Andrés Rocha in his 1681 treatise on the “origin of the Indians.” Rocha, a Spaniard who taught law at the Peruvian University of San Marcos and also served on the Audiencia de Lima, advanced the view that Amerindians were descended from ancient Spaniards who had traveled to the New World in the remote past. Given their common origin, Rocha needed to explain why it was that Amerindians now differed so dramatically from Spaniards. He argued that this was due to “the variation in places, climates, airs and foods,” which, he wrote, caused this change in color, size, gestures, and faces among Americans, who did not conserve the color of the first Spaniards who came to these Indies... because their ancestors enjoyed different climates, different waters, different foods, which at first were not very nourishing, and it was a great achievement that they did not die of hunger until such time as they managed to cultivate fruits and other forms of food, and this is what caused the variation among peoples and in color.

For Rocha, Amerindians thus provided living proof not merely that people from the Old World might undergo dramatic transformations in the New World, but that Spaniards, in particular, could turn into Indians.

Rocha stressed that alterations provoked solely by a change in climate occurred extremely slowly. Thus the ancient Spaniards’ transformation into “toasted and discolored” Indians was not caused simply by the new climate, but rather by “the lack of protection from the weather, bad foods, and over a long period.” For this reason alone, creoles—people of European heritage born in the Indies—remained white despite their lengthy residence in the New World. In any event, Rocha observed, their European complexion was continually reinforced because “they are all raised with much care and protection and with good foods, which was not the case with the Indians and those who first came to this America.” Good food trumped climate.

A change in climate could thus be managed through careful attention to diet, but the converse could not be said for a change in diet. The latter, Rocha stressed, could have devastating consequences for the individual complexion, and for this reason it was essential for creoles and Europeans living in the Indies to eat appropriately. Eating the wrong food and living unprotected in the American environment had turned ancient Spaniards into Indians, and contemporary Spaniards should take care not to repeat the mistakes of their ancestors. “Here we have seen very white men from Spain,” Rocha wrote, “who, on withdrawing into the hills and eating maize and other Indian dainties, return so toasted that they resemble Indians.” As Rocha explained, food was vital to maintaining the distance between Spaniards (and creoles).
oles) and Indians. Without access to European food, Spaniards would sooner or later turn into Indians. “Race,” in other words, was in part a question of digestion.

These were not purely theoretical concerns of interest solely to medically trained writers. European explorers constantly complained that they fell ill when they could not eat familiar foods, and conversely asserted that only the restoration of their usual diet would heal them. Recall Columbus’s 1494 letter to the Catholic monarchs. The admiral’s son Ferdinand similarly insisted that the Spanish settlers in the Caribbean were “made ill by the climate and diet of that country.” Such views were widely shared by other colonial writers. In his own discussion of the disastrous settlement on Hispaniola, Fernández de Oviedo agreed that the high European death toll was due primarily to the change in diet. He summed up the dangerous features of the New World as follows:

beyond the incongruity that the heavens there have with those of Europe (where we were born), and the influence of the differences in the airs and vapors and nature of the land, we found no foods in these parts that were like those that our fathers gave us: the bread—of roots, the fruits—wild or unknown and unsuitable for our stomachs, the water—of a different flavor, the meats—there were none on [Hispaniola], beyond those mute rodents or a few other animals, and all very different from those of Spain.

Unlike medically trained writers, Fernández de Oviedo did not frame his analysis with references to Galen or Hippocrates. Rather, he presented his observations as the outcome of firsthand experience in the New World, which had taught him that the air, water, and food of the Americas were not suited to European bodies. Indeed, sixteenth-century Europeans consistently claimed that direct experience demonstrated that the indigenous diet was unhealthy and dangerous (at least for Europeans).

These claims were made despite the fact that maize and other New World starches clearly formed the bulk of the diet of most settlers. Explorers often reported without comment that they provisioned themselves with maize and other New World

28 Fernando Columbus, Life of the Admiral Christopher Columbus, trans. Benjamin Keen (New Brunswick, N.J., 1959), 122.
30 For other criticisms of the dangerous effects of New World foods on Europeans that do not make specific reference to medical teaching, see Juan de Estrada and Fernando de Niebla, “Relación de Zapatitlán” (1579), in René Acuña, ed., Relaciones geográficas del siglo XVI: Guatemala (Mexico, 1982), 42; Juan Cristóbal Calvete de Estrella, Rebelión de Pizarro en el Perú y vida de D. Pedro Gasca (ca. 1593), 2 vols. (Madrid, 1889), 1: 228 (book 2, chap. 5); and Bernardo de Vargas Machuca, “Milicia indiana,” in Vargas Machuca, Milicia y descripción de las Indias, 2 vols. (1599; repr., Madrid, 1892), 1: 115 (book 2). For texts by medically trained writers that attribute illness among Europeans in part to the unfamiliar diet, see Martínez, Reportorio de los tiempos, 285–286; Cisneros, Sitio, naturaleza y propiedades, 114 (chap. 17); Francisco Nuñez de Oria, Regimiento y aviso de sanidad, que trata de todos los géneros de alimentos y del regimiento della (Medina del Campo, 1586), 7v, 42r–v; and Cárdenas, Problemas y secretos maravillosos de las Indias, 184 (book 3, chap. 5). See also Martyr, De Orbe Novo, 1: decade 1, book 10; decade 2, book 4.
staples seized from locals; indeed, failure to provide expeditionary parties with food was accepted as a legitimate reason for attacking an indigenous village. Beyond this, there is a wealth of evidence that from the earliest days of settlement, Spaniards drank atole (a maize porridge), ate tortillas, and consumed other indigenous starches such as chuño, or freeze-dried potato, although unlike Amerindians, they sometimes flavored it with sugar. 31 Archaeological evidence provides another perspective. Studies of early Spanish settlements in Florida, for example, reveal the remains of a range of indigenous foodstuffs, including maize and squash. 32

Nonetheless, when illness struck, settlers immediately blamed the New World diet. For instance, the diary of Felipe de Hutten, a German who participated in the conquest of Venezuela in the 1530s, indicates that his party relied on maize seized from locals for their food, but when a number of his companions fell ill, he recorded bitterly that maize and cassava were “damaging not only to the sick, but also to the healthy who are not accustomed to such food.” 33 Medical writers in Spain presumably drew on the reports of such men for their own pronouncements about the dangers posed by New World foods. Francisco Nuñez de Oria, for example, recorded in his 1586 dietary manual that “the root called cassava, from which the Indians make bread, is mortal poison to those from these parts who navigate over there.” 34 Similar concerns afflicted settlers in England’s New World colonies, who likewise worried


34 Nuñez de Oria, Regimiento y aviso de sanidad, 7v. 42r–v. Such concerns were not prompted by anxieties about the poisonous juice contained in bitter cassava, for Europeans were familiar with the process whereby this substance was extracted. Writers often stressed that once bitter cassava had been processed, it was perfectly safe, at least for Amerindians. See, for example, Fernández de Enciso, Suma de geographia, liii; and Juan Sánchez Valdés de la Plata, Corónica y historia general del hombre (Madrid, 1598), 124 (book 3, chap. 2).
that American foodstuffs would induce illness despite the fact that they relied upon them for nourishment.\textsuperscript{35}

Even when it did not induce illness, reliance on a wholly indigenous diet was apt to provoke profound changes in the individual constitution, as was revealed by the experiences of the Spaniard Jerónimo de Aguilar. Aguilar had been shipwrecked off the Yucatán Peninsula in 1511 and lived with local Maya Indians until his rescue by Hernán Cortés in 1519. Following his return to Spanish society, he was offered European food, but to the surprise of his rescuers, he ate only sparingly. When asked why he was so moderate, he explained that “after so much time he was accustomed to the food of the Indians, and his stomach would regard Christian food as foreign.”\textsuperscript{36}

Long residence among the Indians had left his stomach unable to tolerate a normal Christian diet. His digestive system had gone native; in humoral terms, he had acquired a “second nature,” and as a result, his body was not quite as Christian as it had been prior to his shipwreck. He had begun to turn into an Indian. A diet based on New World foods was thus viewed with suspicion both by medically trained Europeans, who feared its impact on the individual complexion, and by less learned individuals, who, whatever their actual diet, insisted that lived experience demonstrated the sad consequences of relying on American foodstuffs.

For this reason, Spaniards went to great lengths to obtain health-giving Old World foods, in particular the Iberian trinity of wheat bread, wine, and olive oil, together with meats such as lamb, beef, and pork.\textsuperscript{37} Wheat bread and wine were central to the ideal Iberian diet, and also played an important role in both medical and religious thinking. Wheat bread occupied a significant place within humoral medicine, as it was generally held to be the most nutritious food. Wine, in turn, was regarded as supremely healthy, provided that it was drunk in moderation. Beyond this, wheat bread and wine played a central role in the Catholic ritual of communion. From the Middle Ages, Catholic doctrine required that communion be celebrated using only wheat bread and grape wine. Thomas Aquinas stated clearly in his thirteenth-century \textit{Summa Theologica} that “the proper matter for this sacrament is wheaten bread . . . [and] only wine from the grape.” He explicitly ruled out the use of other grains such as barley, notwithstanding their frequent use in ordinary breads. Pomegranate or mulberry wine was similarly disqualified, despite the fact that “vines do not grow in some countries.”\textsuperscript{38} The Catholic Church’s position on the composition of the Eucharist was thus clear: only wheat bread and grape wine had the potential


\textsuperscript{36} Cervantes de Salazar, \textit{Crónica de la Nueva España}, 114 (book 2, chap. 26). Thanks to Deborah Toner for this reference.


to become the body and blood of Christ. Moreover, in the Iberian Peninsula, wine possessed an additional Catholic resonance, for Islamic teaching forbade the consumption of any form of alcohol. Wheat bread and wine therefore served as powerful symbols of the Catholic civilization that colonists aspired to represent.

These foods—along with a host of lesser ingredients, such as the chickpeas, melons, and radishes that Columbus carried with him on his second voyage—were thus important to the success of Spain’s colonizing mission in several ways. Medical thinking maintained that European foods were what prevented Spaniards from degenerating into Indians, and individual explorers and settlers insisted—often in the face of considerable contrary evidence—that they sickened when deprived of their familiar diet. For these reasons, Columbus had requested that his men be provisioned with supplies from Spain. He recognized, however, that the importation of European food would not provide a permanent solution. Settlers needed to cultivate these items themselves if the colonial outposts were to survive. Attempts to grow wheat and other European staples were accordingly made from the 1490s, and European livestock were introduced in both the Caribbean and the American mainland from the earliest days of Spanish settlement. Crown officials were very concerned to determine which Old World plants grew well in the New World, and in particular whether “wheat, barley, wine and oil can be cultivated.” Geographical surveys reported explicitly on this matter, and many writers detailed the Old World crops that did and did not thrive in particular regions. Cuneo, who had attributed the Caribbean islanders’ phlegmatic nature to their poor diet, thus reported assiduously to his sponsors that “for your information, we brought with us from Spain some of every kind of seed, and we planted them all, and determined which do well and which do poorly.”

Although individual reports in fact reveal considerable variation in the actual

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39 In his letter to the Spanish monarchs, Columbus noted that European food should last “until wheat and barley and vines should become established here.” Columbus, “Memorial,” 158.


41 This was question 25 in the questionnaire sent to colonial officials by the Spanish crown in 1577, and again in 1584; see, for example, Estrada and Niebla, “Relación de Zapotitlán,” 29; and Antonio Barrera-Osorio, *Experiencing Nature: The Spanish American Empires and the Early Scientific Revolution* (Austin, Tex., 2006), 24–25. See also “Relación de Gil González Dávila” (1518), in *Colección de documentos inéditos relativos al descubrimiento, conquista y colonización de las posesiones españolas en América*, 42 vols., vol. 1, ed. Joaquín Pacheco, Francisco de Cárdenas, and Luis Torres de Mendoza (Madrid, 1864), 341–342; and “Mercedes y libertades concedidas a los labradores que pasaron a las Indias” (1518), in Manuel Serrano y Sanz, ed., *Orígenes de la dominación española en América: Estudios históricos* (Madrid, 1918), 1: 580–582 (docs. 61–62).

success of these agricultural ventures, a consensus quickly emerged that European crops flourished in the New World.43 “We are very certain, as experience has shown, that both wheat and wine will grow well in this land,” insisted Columbus two years after his landfall in the Caribbean, although this statement cannot have been based on much actual evidence.44 Writers in both Mexico and Peru regularly recorded wheat yields of more than a hundred measures for every one sown at a time when typical Spanish yields were about five to one.45 “The Spaniards,” recorded an Italian chronicler, “report amazing things about the fertility of [Hispaniola], which I can hardly repeat without blushing: they say that radishes, lettuce, and cabbages mature within fifteen days of planting, that melons and squash mature within thirty-six days, that vines produce grapes in a year, and that wheat (they were determined to try everything), planted in early February, had ripened by mid-March.”46

Such implausible claims point to the significance of Europeans’ attempts to introduce their crops into the New World, for the ability of Old World plants to flourish in the New World closely mirrored the ability of Old World people to flourish there. Of course, Spaniards needed to eat nourishing Old World foods if they were to retain

43 For accounts describing only partial success in cultivating Old World crops, see, for example, “Relación de la Isla Española enviada al Rey d. Felipe II por el licenciado Echagoian” (1560), in Colección de documentos inéditos relativos, 1: 12; Francisco de Viana, Lucas Gallego, and Guillén Cadena, “Relación de la provincia y tierra de la Verapaz” (1574), in Acuña, Relaciones geográficas del siglo XVI: Guatemala, 207, 221; and the varied reports in Jiménez de la Espada, Relaciones geográficas de las Indias: Perú, vol. 1.

44 Columbus, “Memorial,” 158.


46 Marciantonio Coccio (Sabellico), “Book One . . . of the Account of the Happenings in the Unknown Regions” (1500), in Symcox, Italian Reports on America, 69. For other enthusiastic reports, see Alessandro Geraldini, “Itinerario to the Regions Located below the Equator,” ibid., 127–128; Martyr, De Orbe Novo, 1: decade 1, book 1; decade 1, book 3; decade 2, book 9; decade 3, book 7; “Mercedes y libertades concedidas,” 580–581 (doc. 61); López de Gómar, Historia general de las Indias, 56, 166, 341–342, 361 (chaps. 20, 89, 195, 208); Las Casas, Apologética historia sumaria, 3: 9, 14, 19–20, 23, 32, 61–63 (chaps. 2, 3, 5, 6, 9, 20); Cervantes de Salazar, Crónica de la Nueva España, 14 (book 1, chaps. 5–6); Tomás López Medel, De los tres elementos: Tratado sobre la naturaleza y el hombre en el nuevo mundo, ed. Berta Ares Queija (ca. 1570; repr., Madrid, 1990), 13, 136, 143–145, 167, 183; Nuñez de Oria, Regimiento y aviso de sanidad, 40r–v; Dorantes de Carranza, Sumaria relación, 49–50, 60, 74, 77; and Cobo, Historia del Nuevo Mundo, 1: 6, 375–420 (prologue, book 10, chap. 1). Individuals who admitted that wheat and grapes did not prosper in a particular region often went to some effort to explain that this was simply because they had not been cultivated correctly. See, for example, “Relación de la Isla Española enviada,” 1: 13, 17; or Dorantes de Carranza, Sumaria relación, 49–50. Many writers also noted the ease with which livestock multiplied; Martyr, De Orbe Novo, 1: decade 3, book 7; Fernández de Enciso, Suma de geographía, iii; Fernández de Oviedo, Historia general y natural, 1: 79, 221; 2: 38–39, 71 (book 3, chap. 11; book 6, chap. 51; book 12, chap. 9; book 14, chap. 3); López de Gómar, Historia general de las Indias, 73 (chap. 35); “Relación de la Isla Española enviada,” 1: 17; José de Acosta, Natural and Moral History of the Indies, trans. Frances López-Morillas (1598; repr., Durham, N.C., 2002), 230 (book 4, chap. 33); Dorantes de Carranza, Sumaria relación, 50; Cobo, Historia del Nuevo Mundo, 1: 377 (book 10, chap. 1); and, for a discussion of “ungulate eruption,” Melville, A Plague of Sheep.
their health and their Spanish complexion. It was this pressing need for European foods that led settlers in the Indies, as elsewhere, to attempt to “Europeanize” the colonial landscape, to use Alfred Crosby’s terminology, by introducing Old World plants and animals.47 In addition, because Old World plants responded to the same climatic forces as did Spaniards, they functioned as a litmus test for the Spanish colonial venture: If they thrived, Spaniards were also likely to thrive. Conversely, if they failed, then it was unclear whether overseas settlement could endure.48

It was for this reason that Spaniards emphasized the ease with which Old World plants grew in the Indies. Indeed, they explicitly associated their successful cultivation of Iberian crops with the providential nature of the discovery and colonization of the Americas. The abundance and fertility of Old World crops indicated clearly that divine forces looked favorably on Spain’s presence in the New World. “In what other land,” asked Fernández de Oviedo,

has one heard or known that in such a short period, and in lands so far from our Europe, so much livestock and produce—introduced here from across such wide seas—should be produced, and in such abundance as is seen by our own eyes in these Indies? These lands have received [these crops] not as a stepmother, but as the truest mother, truer even than the one who sent them, for some of them grow better here than in Spain.49

Such abundance was used by some writers to adduce that the New World was in fact the location of the Garden of Eden. This fertility, which meant that “whatever fruits are brought from Spain, and as many as are taken from Europe . . . grow with such abundance throughout the year,” together with the benign climate, proved beyond doubt, in the opinion of the creole writer Agustín de Vetancurt, “that the Terrestrial Paradise is hidden in some part of this region.” Other writers, beginning with Columbus, entertained similar suppositions.50 The Americas, an earthly paradise, welcomed the Spanish by providing them with abundant supplies of their own foodstuffs,
so as to ensure their health and well-being. Settlers could thus retain their Spanish complexion whatever the rigors of the climate.

Indeed, the very climate was said to be undergoing a process of transformation to make it more suitable for European bodies. Fernández de Oviedo reported that since Europeans had arrived in the Americas, the climate in the areas of Spanish settlement was becoming milder. In his view, this was because the European presence moderated and improved the environment. “I have discussed this issue with some learned men,” he reported. Their opinion was that “the region and its rudeness are being dominated and tamed by Spanish dominion, just as occurs with the Indians and natives and animals and all the rest of this land.” Not only were Europeans protected against the dangerous effects of the American climate by the fecundity of Old World crops, but the climate itself was becoming less hostile. Clearly, nature smiled on Spain’s colonial ambitions.

WHAT, HOWEVER, OF THE many new foods that greeted Europeans on their arrival in the Americas? Settlers suspected that they fell ill when they relied on a diet of New World staples, but was any encounter with these new foodstuffs invariably detrimental to the European body? Certainly Europeans looked with disdain on many of the things eaten by Amerindians, and on occasion drew explicit comparisons between the incivility of the food and that of the people who ate it. The fruit of the mangrove tree was in Fernández de Oviedo’s view “a bestial food fit for savage people.” The consumption of insects attracted particular scorn. “They eat hedgehogs, weasels, bats, locusts, spiders, worms, caterpillars, bees, and ticks, raw, cooked, and fried. Nothing living escapes their gullet, and what is all the more amazing is that they eat such bugs and dirty animals when they have good bread and wine, fruit, fish and meat,” remarked the chronicler Francisco López de Gómara in 1552, after the Spanish had introduced their superior foodstuffs. As Anthony Pagden observed, the inability to distinguish between the edible and the inedible was a sure sign of barbarism. Cannibalism was of course the clearest example of such a category mistake.

Such hostility, however, does not typify European responses to all New World foods, and a number of items met with a very positive reception. Pineapples were universally admired, chile peppers were approved for those with strong stomachs, and by the late sixteenth century, cacao, in the form of chocolate, was widely consumed. Indeed, it was Spaniards who introduced tomatoes to South America and chiles to Florida. A variety of New World meats were similarly praised by settlers.

51 Fernández de Oviedo, Historia general y natural, 1: 206 (book 6, chap. 46).
53 López de Gómara, Historia general de las Indias, 151 (chap. 79); and “Interrogatorio Jeronimiano” (1517), in Emilio Rodríguez Demorizi, ed., Los dominicos y las encomiendas de indios de la isla Española (Santo Domingo, 1971), 279, 302.
54 Pagden, The Fall of Natural Man, 87–89. See also Nuñez de Oria, Regimiento y aviso de sanidad, 7r.
55 The Spanish Jesuit Bernabé Cobo, who lived for many years in Peru, observed that Indians “eat all living things, plants and animals, from the most noble, which is man, to the world’s most disgusting bug or dirty thing.” Cobo, Historia del Nuevo Mundo, 2: 20 (book 11, chap. 6).
and chroniclers. Colonial officials carefully recorded which New World foods were safe for Europeans to consume. Avocado, for example, was reported to be a “very good fruit and healthy for Spaniards to eat.”

Medical writers, in turn, classified these new foodstuffs according to the tenets of humoral theory, although they often disagreed with each other in their conclusions. Beyond this, despite the suspicion with which maize and other New World starches were viewed, it was impossible for most settlers to avoid them completely. Chroniclers and travelers noted the widespread consumption of “atole, pinole, scalded plantains, butter of the cacao, puddings made of Indian maize, with a bit of fowl or fresh pork in them seasoned with much red biting chilli,” and other local delicacies, by Spanish and creole settlers alike.

Spaniards not only ate these foods in the Indies, but also in a number of cases introduced them into the Peninsula, so that by the end of the sixteenth century, chiles, tomatoes, and maize were a familiar sight in Spain itself.

Given the important role that New World foods played in the diet of most settlers, it is not surprising that writers sometimes found positive things to say not only about pineapples but also about maize or cassava. The Franciscan bishop of Yucatán, Di-
ego de Landa, for instance, noted that maize bread was “good and healthy, except that it is bad to eat cold.”\textsuperscript{60} In like fashion, the protomédico Francisco Hernández praised maize as a healthy and useful food.\textsuperscript{61} Nonetheless, even the most enthusiastic proponents of the indigenous diet vacillated in their endorsements. The Dominican friar Bartolomé de las Casas stated on one page of his sixteenth-century \textit{Historia de las Indias} that “Indian bread” was healthier than wheat bread, and on another that it made settlers ill.\textsuperscript{62} And despite his assertions that maize was healthy and useful, Hernández maintained that it “generated profuse bile [and] blood,” and for this reason was probably behind the devastating epidemic of \textit{cocoliztli} that struck Mexico City in 1576.\textsuperscript{63} As for pineapples and avocados, chroniclers insisted that they were healthful only when eaten in limited quantities.\textsuperscript{64}

Europeans thus fluctuated in their views about how much of the new American environment they could incorporate into their own bodies, and by extension into their culture. This uncertainty is revealed particularly clearly in their inconsistent attempts at categorizing maize and other New World carbohydrates such as cassava and potatoes. On the one hand, the Spanish quickly decided that these substances played a role in indigenous cultures equivalent to that played by wheat bread in their own. Maize, wrote the sixteenth-century Jesuit chronicler José de Acosta, was the “bread of the Indies.”\textsuperscript{65} Many writers referred to maize as “Indian wheat,” and similarly described foods made from maize, cassava, and sweet potato as “bread,” regardless of the form in which they were prepared.\textsuperscript{66} Such comparisons are partic-
ularly significant because of the central place that wheat bread occupied in Catholicism through its role in the communion service: bread is the substance that becomes the body of Christ. Acosta’s comments on the similarities between New and Old World breads highlight the religious implications very well. “The creator,” he noted, “scattered his largesse everywhere; to this hemisphere he gave wheat, which is the chief nourishment of man, and to the hemisphere of the Indies he gave maize, which holds second place after wheat for the sustenance of men and animals.”67 The identification of wheat with maize extended to the language of Christian prayer. “May You give us now our daily tortillas,” reads a Nahuatl translation of the Lord’s Prayer from 1634.68

On the other hand, perhaps the most characteristic feature of maize and other New World starches was precisely that they were not wheat. Maize, that foodstuff that harmed “not only the sick but also the healthy,” was not merely dangerous when eaten in any quantity; it had also been declared incapable of transformation into the body of Christ. New World catechisms followed European practice in stressing the necessity of using wheat flour (and grape wine) in the communion service. Thus a 1687 Venezuelan catechism offered a clear answer to the question “Of what material is the Eucharist consecrated?” The response was “of true bread, made with wheat flour and water, and of true wine from grapes.”69 The vacillation between the views that maize was bread and that it was not bread can be seen in the linguistic inconsistency of Acosta’s comment that his chronicle would show “what sort of bread there is in the Indies and what they use in place of bread.”70

It is tempting to construct a parallel between European uncertainty over whether maize was or was not bread and the larger question of whether or not the Indians were men. The news that a previously unknown people had been found in the Americas prompted an intense debate in Europe about the nature of the Indians, and more specifically their capacity to become Christians. The question was ostensibly settled in 1537 when Pope Paul III issued a bull declaring that “the Indians are truly men and that they are not only capable of understanding the Catholic Faith but, according to our information, they desire exceedingly to receive it.”71 Nonetheless, disputes

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68 Bartolomé de Alva, _A Guide to Confession Large and Small in the Mexican Language_, 1634, ed. Barry Sell and John F. Schwaller (Norman, Okla., 1999), 162; and Francisco de Pareja, _Doctrina cristiana muy útil y necesaria_, México, 1578, ed. Luis Resines (Salamanca, 1990), 4v.

69 José Rafael Lovera, “Intercambios y transformaciones alimentarias en Venezuela colonial: Diversidad de panes y de gente,” in Janet Long, ed., _Conquista y comida: Consecuencias del encuentro de dos mundos_ (Mexico City, 1997), 67; emphasis added. A Peruvian catechism similarly admonished indigenious parishioners that they should under no circumstances confuse the host with a simple “maize cake or arepa”; Concilio Provincial, _Tercero catechismo y exposición de la doctrina cristiana_ (Lima, 1585), 75v. Or see Alonso de la Peña Montenegro, _Itinerario para parochos de indios en que se tratan las materias mas particulares, tocantes a ellos, para su buena administración_ (Madrid, 1668), 346–355 (book 3, tratado 6).

70 Acosta, _Natural and Moral History of the Indies_, 197 (book 4, chap. 16); emphasis added. For comparable inconsistency, see Cuneo, “News of the Islands of the Hesperian Ocean,” 57, 60.

71 Paul III, “Sublimus Dei,” May 29, 1537. Papal Encyclicals Online, http://www.papalencyclicals.net/Paul03/p3subli.htm. The Dominican friar Antonio de Montesinos raised this matter with particular drama in a 1511 Christmas Day sermon in which he denounced Spanish mistreatment of the indigenous
about the character of the Indians continued for decades; the humanist scholar Juan Ginés de Sepúlveda, for example, attracted considerable support for his thesis that the Amerindians were natural slaves of the sort described by Aristotle. They were, he maintained, “homunculi in whom you will scarcely find even vestiges of humanity.”72 Writers in the mid-seventeenth century were still discussing whether Amerindians were “men in our shape” or some other sort of being.73

Bread or not bread; men or not men? We would not be alone in positing a connection between these foods and the people who ate them, for colonial culture itself equated eaters and eaten. “Indians aren’t people and cassava isn’t bread,” runs an aphorism from colonial Venezuela.74 Perhaps these Indian breads were in essence identical to Old World breads. In the late sixteenth century, certain New World churchmen disputed the doctrine that only wheat flour could be used in communion wafers, arguing that maize, too, could serve as the basis for the host.75 Perhaps maize could become a communion wafer, and perhaps Indians had the same potential to become Christians as did Europeans. Or perhaps the Indians were fundamentally other, incapable of incorporation into the European world, just as the ersatz “breads” of native culture could never be transformed into the true body of Christ.

Such parallels between the introduction of European foods and European religion shaped the imaginations of colonial actors in the early modern era. The evangelization of the New World was often compared to agricultural practices: Christianizing the Indians was akin to uprooting the weeds that had flourished prior to the arrival of Europeans and replacing them with wholesome European crops. “Never,” wrote the Dominican priest Diego Durán in the 1570s, “will we succeed in teaching these Indians to know the true God if we do not first eradicate and totally remove from their memory their superstitions, ceremonies, and false cults to the false gods whom they worship, just as it is not possible to grow a good field of wheat in mountainous and shrubby soil if you have not first completely removed all the roots and growths that it naturally produces.”76 These injunctions were of course both metaphorical and literal. Europeans were constantly enjoined by the crown not only to catechize the Indians but also to plant wheat and vines wherever possible.

Yet what were the Indians supposed to eat? If their roots were to be replaced with fields of wheat, what then would they consume? In fact, many settlers advocated that Indians adopt the dietary habits of Europeans. For example, in 1551, an official population and asked, “Are they not men? Do they not have rational souls?” Las Casas, Historia de las Indias, 3: 13–14 (book 3, chap. 4). See Lewis Hanke, Aristotle and the American Indians: A Study in Race Prejudice in the Modern World (London, 1959); and Pagden, The Fall of Natural Man.

72 Juan Ginés de Sepúlveda, Demo´crates segundo o De las justas causas de la guerra contra los indios (1548), ed. Angel Losada (Madrid, 1951), 35, 38, 63; and Lewis Hanke, The Spanish Struggle for Justice in the Conquest of America (Boston, 1965), 122.

73 See, for example, Peña Montenegro, Itinerario para parochos de indios, 273–279, quote from 277 (book 3, tratado 1).

74 Lovera, “Intercambios y transformaciones alimentarias,” 65.

75 López Medel, De los tres elementos, 156.

76 Durán, Historia de las Indias de Nueva España, 1: 3 (prologue to vol. 1). For a seamless transition from the need to evangelize to the need to cultivate European crops, see “Mercedes y libertades concedidas,” 580 (doc. 61). Bartolomé de las Casas captured well the multivalent importance of wheat cultivation when he reported with satisfaction that wheat grown in Hispaniola had been used by fellow Dominicans to prepare not only bread but also “very good hosts”; Las Casas, Apologética historia sumaria, 3: 12 (chap. 2).
stationed in Guatemala wrote to the Spanish monarchs to describe the ambitions of the small colonial outpost that he headed. His intention, he explained, was to encourage the Indians to adopt “our customs in eating, drinking, dressing, cleanliness and personal conduct . . . and finally our language.” The Franciscan friar Bernardino de Sahagún, who in the mid-sixteenth century compiled a vast encyclopedia of life in pre-conquest Mexico, was similarly explicit in his view that Indians should emulate European consumption practices. In a sermon delivered in Nahuatl to an indigenous audience, Sahagún proclaimed that Indians should eat that which the Castilian people eat, because it is good food, that with which they are raised, they are strong and pure and wise . . . You will become the same way if you eat their food, and if you are careful with your bodies as they are. Raise Castilian maize [wheat] so that you may eat Castilian tortillas [wheat bread]. Raise sheep, pigs, cattle, for their flesh is good. May you not eat the flesh of dogs, mice, skunks, etc. For it is not edible. You will not eat what the Castilian people do not eat, for they know well what is edible.

The consequences that would accrue from a European diet are here set forth explicitly. Indians would become like the Spanish were they to eat their foods.

Similar assertions were made by another sixteenth-century writer, who commented that as a result of eating a specifically European diet and sheltering from the elements, the indigenous inhabitants of the Mexican village of Citaltepepec had begun to acquire a European constitution. “Their complexion has almost been converted into ours, because they have been given beef and pork and lamb to eat, and wine to drink, and they now live under roofs,” he wrote. Just as a diet of inadequate New World foods had transformed the Indians into the pusillanimous, phlegmatic beings they now were, so a return to nourishing European foods would restore the healthful European complexion they had lost over the centuries. The Spanish jurist Juan de Solórzano Pereira explained clearly the connection between diet and the current condition of the Indians in his 1639 justification of Spain’s American empire, De Indiarum Jure. The Indians, he noted, were savage not “from birth or lineage or from the air of their native place,” but rather from “a depraved education over a long span of time and from the practice, harshness and lack of instructions in their way of life and from the poor quality of the food they consume.” Indians should thus be

77 Carta de Tomás López a los reyes de Bohemia, Guatemala, June 9, 1550, Archivo General de Indias, Seville, Audiencia de Guatemala 9A, N.68, R.17, fols. 5, 9.
78 Fray Bernardino de Sahagún, Siguense unos sermones de dominicas y de santos en lengua mexicana (1563), cited in Louise M. Burkhart, The Slippery Earth: Nahua-Christian Moral Dialogue in Sixteenth-Century Mexico (Tucson, 1989), 166, emphasis added; and Pagden, The Fall of Natural Man, 177. The Spanish regularly noted that one of the benefits Amerindians derived from the conquest, in addition to salvation, was access to European food. For example, a 1573 ordenanza stated that Europeans should remind Indians that colonization was beneficial to the Indians themselves because through it they had learned “the use of bread and wine and oil and many other foods.” “Ordenanzas de su magestad hechas para los nuevos descubrimientos, conquistas y pacificaciones,” July 13, 1573, in Colección de documentos inéditos, vol. 16, ed. Torres de Mendoza (Madrid, 1871), 183. Or see Juan Ginés de Sepúlveda’s claim that the introduction of wheat and other Old World foodstuffs amply compensated the Indians for any losses suffered as a result of the conquest; Sepúlveda, Demócrates segundo, 78. This assertion is repeated in Cobo, Historia del Nuevo Mundo, 1: 376 (book 10, chap. 1).
80 Juan de Solórzano Pereira, De Indiarum Jure (1639), cited in James Muldoon, The Americas in the
encouraged to adopt the healthy diet of Europeans, for this in itself would improve their level of civility.

This seemingly logical suggestion, however, contradicted basic elements of the same humoral theory that underpinned it. Indians were advised to adopt a European diet so as to acquire (or restore) a European complexion, yet medical thinking insisted that a change of diet could have devastating consequences for an individual’s constitution. After all, changes in diet were blamed for illness among European settlers in the New World. If it was so dangerous for Europeans to eat Indian food, what would happen to Indians who ate European food? Would they, too, not fall ill? In fact, many writers believed that it was precisely the adoption of European food that explained the extraordinarily high mortality rates that afflicted Amerindians after the advent of colonization. In Hispaniola, the wave of epidemics that nearly exterminated the Taino people was blamed at least in part on their adoption of European dietary habits, just as the ill health afflicting Spanish settlers on the same island was attributed to the consumption of New World foods.81 Likewise, the Spanish geographer Martin Fernández de Enciso observed that certain Caribbean Indians, whose usual diet consisted solely of fish and cassava, “die if they are taken to other places and given meat to eat.”82 Juan de Cárdenas offered similar explanations as to why the Chichimec Indians, who in their own environment were hardy and robust, sickened and died when incorporated into colonial society. He attributed their mortality to various causes, first among them “the change in food, in that they are deprived of the natural sustenance on which they were raised, which, although it is very bad in itself, is for them healthy and very good, as they are accustomed to it, unlike our food which harms them.”83 Dreadful though the Chichimec diet was (Cárdenas explained that it consisted largely of raw meat), it was better suited to their complexion than was European food. “As our food is foreign and harmful to them, it does not give them strength to resist illness,” he concluded.84 José de Acosta summed up the current orthodoxy when he observed in 1590 that “people attribute [the decline in the indigenous population] to various causes, some to the fact that the Indians have been overworked, others to the changes of food and drink that they adopted after becoming accustomed to Spanish habits, and others to the

Span. World Order: The Justification for Conquest in the Seventeenth Century (Philadelphia, 1994), 59; emphasis added. I thank Jim Muldoon for his advice about Solórzano’s views.


82 Fernández de Enciso, Suma de geographia, lii. Or see Bartolomé de las Casas, “Relaciones que hicieron algunos religiosos,” 47; and López Medel, De los tres elementos, 155. Peter Martyr noted that of the ten native interpreters taken from the Caribbean to Spain after Columbus’s second voyage, “only three survived; the others having succumbed to the change of climate, country, and food.” Martyr, De Orbe Novo, 1: decade 1, book 2.

83 Cárdenas, Problemas y secretos maravillosos de las Indias, 202 (book 3, chap. 7). Other factors included lack of exercise and “the sad rage and melancholy that overcomes them, on seeing themselves among men whom they loath so much”; ibid., 203.

84 Ibid. Gerónimo de Mendieta explained that because Indians had begun eating “meat and other foods that we Spaniards eat,” they now suffered from constant sneezing. Mendieta, Historia eclesiástica indiana, 508–509 (book 4, chap. 35).
excessive vice that they display in drink and other abuses." In short, the Indians should adopt a European diet, but doing so might kill them.

This paradox reveals something of the contradiction at the heart of Spain’s colonial enterprise. On the one hand, generations of colonial officials yearned for the Amerindian population to adopt “our customs” not only in eating but also in dressing, hygiene, language, and religion. The centrality of evangelization to the colonial endeavor had of course been laid forth from the earliest days of the conquest, but Spanish ambitions extended far wider. In his 1567 Gobierno del Perú, the Spanish jurist Juan de Matienzo provided a catalogue of European customs that Peruvian Indians should be obliged to adopt. Indians, for example, should abandon “the habit of eating together in the plaza” and should instead eat separately in their own houses, “like rational men.” They should also wear Spanish clothing. This, he insisted, would bring multiple benefits:

Wearing Spanish clothing not only is not bad, but indeed is good for many reasons. Firstly, because they will thereby grow to love us and our clothes; secondly, because they will thereby begin to be more like men . . . ; thirdly, being dressed as Spaniards they will be ashamed to sit together in the plaza to eat and drink and get drunk; and fourthly, because the more they spend, the more silver they will extract from the earth, and that much more Spanish merchandise will be sold, which will all be to the benefit of the treasury.

The desire for profit thus blended seamlessly with the desire to Hispanicize. Such ambitions were expressed regularly by colonial writers and officials. A century after Matienzo composed his treatise, Juan de Solórzano Pereira was arguing that Indians should be taught Spanish “so that they learn to love us more.” They should likewise adopt Spanish habits “in dressing, and in clothing and other laudable customs.”

Here, then, is a clear program for Hispanicization. Nonetheless, scholars such as Homi Bhabha have reminded us of the discomfort caused to colonizers by too close an imitation of their ways by wily colonized people. Such discomfort was made all the more acute by the fact that colonists themselves quickly adopted many aspects of indigenous culture, including, as we have seen, some of its typical foods. Hybridity

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85 Acosta, Natural and Moral History of the Indies, 143–144 (book 3, chap. 19); emphasis added. Acosta endorsed the latter view. Other factors blamed for indigenous mortality included the region’s bad air, the tendency of Amerindians to bathe when ill, and divine wrath. Estrada and Niebla, “Relación de Zapotitlán,” 42; Fernández de Oviedo, Historia general y natural, 1: 67–69; 2: 116 (book 3, chap. 6; book 17, chap. 4); Phelan, The Millennial Kingdom of the Franciscans in the New World, 92–96; and Noble David Cook, Born to Die: Disease and New World Conquest, 1492–1650 (Cambridge, 1998), 1–14, 66. The Peruvian creole Buenaventura de Salinas y Cordova believed that indigenous mortality was a divine punishment of the Spanish, because it deprived them of a labor force. Salinas y Cordova, Memorial, informe y manifiesto, 40r.

86 For the evangelical imperative, see Consejo de Indias (Spain), Recopilación de leyes de los reynos de las Indias, 3 vols. (1791; repr., Madrid, 1943), 1: 1–10.

87 Matienzo, Gobierno del Perú, 53. Las Casas similarly deplored the indigenous custom of eating “on the ground like dogs”; Las Casas, “Relaciones que hicieron algunos religiosos,” 47. Only a few clerics advocated Christianization without Hispanicization; see Phelan, The Millennial Kingdom of the Franciscans in the New World, 96–91, for the views of Gerónimo de Mendieta.

88 Matienzo, Gobierno del Perú, 69–70.

perhaps characterized colonial space, in Spanish America as elsewhere, but this was frequently a source of anxiety, rather than satisfaction, for administrators and settlers alike.\footnote{Homi K. Bhabha, “Signs Taken for Wonders: Questions of Ambivalence and Authority under a Tree outside Delhi, May 1817,” in Bhabha, The Location of Culture (London, 1994); and Bhabha, “Of Mimicry and Man: The Ambivalence of Colonial Discourse,” in Frederick Cooper and Ann Laura Stoler, eds., Tensions of Empire: Colonial Cultures in a Bourgeois World (Berkeley, Calif., 1997). Or see Anthony Pagden, European Encounters with the New World: From Renaissance to Romanticism (New Haven, Conn., 1993), 42–47; and Ann Laura Stoler, Race and the Education of Desire: Foucault’s History of Sexuality and the Colonial Order of Things (Durham, N.C., 1995). For a classic discussion of the formation of “mixed” colonial culture, see Solange Alberro, De gachupín al criollo: O cómo los españoles de México dejaron de serlo (Mexico, 1992); and, for a stimulating analysis of hybridity, see Carolyn Dean and Dana Leibsohn, “Hybridity and Its Discontents: Considering Visual Culture in Colonial Spanish America,” Colonial Latin American Review 12, no. 1 (2003): 5–35.}

Spanish demands for Amerindians to adopt European customs were in fact regularly undercut by legislation intended precisely to preserve the distance between colonizers and colonized. For example, sumptuary laws, retained in colonial Spanish America for centuries after they were abandoned in Europe, struggled to maintain clear hierarchies that *mestizaje* and the fluidities of colonial culture rendered increasingly imprecise: colonial legislation at times actually criminalized attempts by native peoples to “adopt our customs in dressing.”\footnote{See, for example, “Ordenanzas para el buen gobierno de los indios en las Provincias de Soconusco y Verapaz” (September 29, 1628), in Richard Konetzke, ed., Colección de documentos para la historia de la formación social de Hispanoamérica, 3 vols. (Madrid, 1953), 2: 321; and Rebecca Earle, “Luxury, Clothing and Race in Colonial Spanish America,” in Maxine Berg and Elizabeth Eger, eds., Luxury in the Eighteenth Century: Debates, Desires and Delectable Goods (Basingstoke, 2003), 219–227.} Spaniards and creoles, in turn, were regularly prohibited from dwelling in indigenous villages, so as to limit contact between the two groups.\footnote{See the many cédulas in Konetzke, Colección de documentos para la historia de la formación social de Hispanoamérica, 1: 535, 572–573; 2: 58, 287, 308, 401, 532; and Martínez, Genealogical Fictions, 99–101.} Indeed, challenges to the colonial system (real or perceived) were often blamed precisely on ill-advised attempts to incorporate Amerindians into European culture. For example, following a riot in Mexico City in 1692, when the city’s indigenous population had risen up in protest against maize shortages, European and creole observers attributed the unrest in part to the injudicious blurring of caste divisions. Encouraging Indians to speak Spanish was “the first step toward experiencing outrages,” noted one indignant priest. In his view, far from teaching the Indians to “love us more,” learning Spanish simply made them uppity. Wearing Spanish clothing, which Matienzo had described as “not only . . . not bad, but indeed . . . good,” was in this priest’s opinion equally disruptive. Allowing Indians to wear a European-style cape was particularly pernicious, “because it seems this infuses them with pride, and with their blankets they are more humble and obedient.”\footnote{Fray Bernabé Nuñez de Paez, “Informe,” Doctrina de San Pablo, July 4, 1692, Archivo General de la Nación (Mexico City), Historia, vol. 413, fols. 10, 11, 13; Alejandro Canché, The King’s Living Image: The Culture and Politics of Viceregal Power in Colonial Mexico (New York, 2004), 227; and for details of the 1692 riot, Douglas Cope, The Limits of Racial Domination: Plebeian Society in Colonial Mexico City, 1660–1720 (Madison, Wis., 1994), 125–160. Thanks to Frank and Gilda Eissa Barroso for the material from the Archivo General.}
ing and other laudable customs,” characterizes the colonizing vision, for colonialism relies on a dream of unity combined with an insistence on distance. Maintaining the separation between colonizers and colonized was as much a requirement of the enterprise as was the elimination of that separation by teaching the Indians to live “like rational men.” The aims of Spanish colonialism were profoundly contradictory because colonialism is itself contradictory. The uncertainties that characterized European opinions about whether Amerindians should adopt the European diet, and conversely whether Europeans could thrive in the New World, reflect precisely these contradictions. To survive, Europeans needed to be able to eat the foods of the New World, or at least to succeed in cultivating their own crops in the colonial environment, but they did not wish to turn into Indians. Indians needed to learn to eat wholesome European foods, but if they thereby acquired a European complexion, what possible justification remained for their subordination to Spanish rule? Ambivalence about whether Europeans could or could not eat maize, and whether maize was or was not like wheat, reflects deeper European doubts about whether they could live in the Indies, and whether Amerindians could become part of the Hispanic world. Colonists in other parts of the world harbored similar doubts about the consequences of culinary hybridity, for similar reasons.94

Food is both a daily necessity and a potent symbol, and it is therefore particularly effective at capturing anxieties about status in virtually any social context. But in the early modern world, food was uniquely adapted to this role because of its importance in shaping the human body itself. Food, more than any other factor, was responsible for the constitutional differences that separated Europeans from Amerindians. Food helped create the indigenous and Spanish bodies, and food could turn one into the other. Spanish concerns about whether Old World crops could be cultivated in the Indies thus reflected far more than mere nostalgia for Iberia, and colonial stipulations that Amerindians should (or should not) eat European foods went beyond a simple yearning for cultural homogeneity. These concerns spoke directly to Europeans’ worries about the physical integrity of their bodies, and about the maintenance or dissolution of the most fundamental of colonial divisions: that between the bodies of the colonizers and the colonized. Food thus provides a surprisingly effective vehicle for examining the unstable foundations of colonial ideology, which aimed simultaneously to homogenize and to differentiate. This is because diet lay at the heart of early modern European ideas about identity, the body, and civilization itself.

Taking seriously early modern beliefs about food’s profoundly transformative power also helps us understand why settlers in the Americas did not need to invent an embodied racism avant la lettre to account for the differences between themselves and Amerindians, or to explain why Europeans might thrive in the New World while Amerindians sickened. The existing humoral models for understanding the human body provided a satisfying explanation for both these phenomena. Despite the claims of recent scholarship, the idea of racial fixity did not emerge in early America as a result of European encounters with new peoples and places. Colonists’ understanding of the human body did not allow for fixed, permanent, physical differences. In-

instead, Spaniards viewed both Indian and European bodies as mutable and porous, open to the influences of many external forces, including, critically, food, which therefore occupied a central place in the maintenance of colonial society. It is for this reason that chroniclers and officials devoted so much attention to documenting the cultivation of Old World crops in the Americas, and the sons of conquistadors proudly recited the names of the European plants their fathers had introduced, for these foods were the bulwark that separated colonizers from colonized.95

Food was not simply the cultural icing on the colonial cake. Indeed, early modern actors did not view culture and bodies as fundamentally different. The physical body was generated in part through the ambient culture, and in particular through diet. Bodies were built out of food, and they differed one from another because of diet and other cultural practices, which were therefore understood to have a physical impact on the corporeality of the body. These were the ideas that Europeans brought with them to the New World, and which exercised a profound effect on their conceptualizations of the differences between themselves and the new peoples they encountered there. Colonial societies have perhaps always been structured around concepts of physical difference, but the ways in which those differences have been understood are both diverse and historically specific. As Joyce Chaplin has argued, we must pay close attention to European ideas about bodies and nature if we hope to understand the broader process of European colonization in the early modern era.96 To do that, we need to pay attention to how Europeans thought about food.

96 Chaplin, Subject Matter, 7–35.

Rebecca Earle teaches in the History Department of the University of Warwick. Her research concerns the cultural and intellectual history of colonial and independent Spanish America. Her most recent book, The Return of the Native: Indians and Mythmaking in Spanish America, 1810–1930 (Duke University Press, 2007), explores nineteenth-century elite nationalism’s engagement with the preconquest past. She is currently completing a book on food and the construction of the colonial body in the early modern Hispanic world.