NATURAL AND MORAL HISTORY OF THE INDIES

JOSÉ DE ACOSTA *Edited by Jane E. Mangan,*

with an Introduction and Commentary by Walter D. Mignolo.

Translated by Frances López-Morillas

CHRONICLES OF THE NEW WORLD ENCOUNTER

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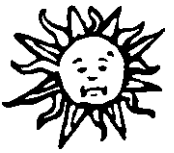

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INTRODUCTION TO JOSÉ DE ACOSTA'S *HISTORIA NATURAL Y MORAL DE LAS INDIAS*

Walter D. Mignolo

THE *HISTORIA NATURAL Y MORAL DE LAS INDIAS* was published in 1590, almost a century after an Italian navigator from Genoa at the service of the Crown of Castile, Christopher Columbus, landed on one of the many Caribbean islands. If we take this date and look at the situation toward the end of the sixteenth and the beginning of the seventeenth centuries (approximately between 1570 and 1610), we can conclude that Acosta's book was published toward the end of an imperial cycle of which Christianity (the Roman Catholic Church), Spain, and Portugal were the driving forces. Thus, missionary orders (Franciscan, Dominican, and Jesuit, mainly) had an enormous importance in the colonization of the "New World." (The "new" world was, of course, only new for those who did not know about it, not for those who were its inhabitants!)

José de Acosta was a Jesuit. The Jesuit order was created by Ignatius of Loyola in 1534 and was approved by the Catholic Church in 1540. Coincidentally, 1540 was the same year in which Acosta was born.[1] The foundation of the order took place during the tumultuous years of the Reformation and Counter-Reformation. Thus, the *Natural and Moral History of the Indies* falls in the middle of a significant number of historical transformations. It responds not only to the "news" from the New World but to the tensions and conflicts in one part of the "Old World" (Christian Europe, the other two parts being Asia and Africa). Acosta's book was also written at the intersection of the Renaissance revival of the Greco-Latin tradition and the emergence of something unexpected within that tradition: a heretofore unknown but impressive mass of land and an intriguing variety of people. Of course, for the people inhabiting Anahuac (the domain of the Mayas and Aztecs in Mesoamerica) and Tawantinsuyu (the domain of the Incas in the Andes), as

well as for the variety of indigenous communities all along the continent, the Greco-Latin tradition was irrelevant. They did not share the same principles of knowledge as Acosta. The greatness of Acosta's book lies in its conceptualization of the "Indies" within a larger philosophical picture. Its feebleness lies in its assumption that Amerindian knowledge did not count in the same way that the Greco-Latin tradition did.

Acosta left Spain for Peru in 1571 and arrived in 1572 (five Jesuits were sent to Peru in 1568, preceding Acosta). Coincidentally, 1572 is the year in which the Jesuit order in the New World was institutionalized formally. Franciscans and Dominicans had been active before the arrival of the Jesuits. The conquest of Mexico-Tenochtitlan by Hernán Cortés in 1519 had much earlier opened the doors for the arrival of mendicant orders. In the Yucatan Peninsula the mendicant orders established themselves after 1530 and in Peru after 1532, the date associated with Francisco Pizarro's conquest of Tawantinsuyu, the territory of the Inca Empire. The Jesuits were in general more open to learning from the cultures they sought to convert than the Dominicans and Franciscans were, and eventually they experienced a significant transformation between the sixteenth and the eighteenth centuries. In fact, the order was expelled in 1767 when the Crown of Castile came to believe that the Jesuits in the New World, who were no longer Spaniards but Creoles (i.e., born in the New World from Spanish descent), were no longer supporting the interests of Spain.

Not a minor factor of these sixteenth-century historical transformations was the approach to the concept of knowledge and understanding that Acosta addressed, head on, in his initial chapters. His concept of the moral and natural aspects of history represented the intersection of philosophy and theology: philosophy because understanding nature, for Acosta, was not just a question of describing minerals, plants, and animals but of understanding the order of the universe and the chain of being, of which the human being was the point of arrival of God's creation; and theology because understanding nature was a way of knowing and revering God, its creator. The relevance of his book can be measured by its immediate translation from Spanish into Italian, French, English, Dutch, and Latin—that is to say, into the languages of what we know today as modern and imperial Europe. Although the Jesuit order was also active in India and China toward the end of the sixteenth century, there was no interest in translating Acosta into Chinese or Hindi. Why? It was neglected because at that point in history the western Christen-

dom that would become Europe was marginal in relation to the center of trade and of ancient civilizations like China and India. The reasons why Christians/Europeans and merchants were interested in reaching China and India, and not the other way around, was because Christians/Europeans did not have much to offer the Chinese and Indian people. Today the European and North American audience is not very interested in minor languages and marginal cultures. The situation was similar, but reversed, in the sixteenth century. The printed book in Europe at the time of Acosta was only some 120 years old and at the time was as crucial for the dissemination of information as the Internet is today. Furthermore, and parallel to the Internet, there was a selection and a relation of power being maintained among those who were in a position to receive and retrieve information.

Before going further let's pause and ponder why Acosta referred in the title of his book to "las Indias" and not to America or to the New World. We know that one of the reasons why America or the New World was first named Indias (or, more exactly, Indias Occidentales) was because Christopher Columbus believed he had arrived at the Asian "India." However, the Spanish Crown long after this misperception had been corrected used the name Indias Occidentales in all its legal documents. The need to specify Occidentales was due to the fact that the Spanish colonial possessions were not limited to America or the New World but extended to the Moluccas and Philippines in Asia, which indeed was part of the Old World. If we keep in mind that for the Incas and the Aztecs the territory they inhabited and governed was conceptualized as Tawantinsuyu and Anahuac, respectively, we can better understand not only in what sense Indias Occidentales was superimposed on indigenous conceptions but what the consequences were. The erasure of the indigenous conceptualization of space extended, on the one hand, the European concept of the globe. On the other, this erasure imposed the idea that the truth of the matter was indeed whatever European cartographers and politicians decided as they mapped and named the ancient lands of Tawantinsuyu and Anahuac. Acosta was not exempt from these assumptions.

As a Renaissance scholar, Acosta was trained in Greek philosophy, Latin rhetoric, and Christian theology. And, like many other great intellectuals of the time, for instance, the Dominican Fray Bartolomé de Las Casas or the Franciscan Fray Bernardino de Sahagún, he was at the intersection of classical scholarship and new discoveries. Acosta's book should be read, therefore, as one of the many efforts, but certainly also one of the most brilliant, to make

sense of the novelty of lands, people, religious practices, and methods of social organization that had been unknown to the Greek philosophers, Latin rhetoricians, and Christian theologians. In the Indies, Acosta took advantage of conversations with people in Tawantinsuyu (today Peru, Bolivia, and Ecuador, mainly) and Anahuac (today Mexico, Guatemala, and Nicaragua, mainly). He spent a year in the Caribbean islands before going to the center of Tawantinsuyu (Cuzco, today in Peru), and in Peru he visited the main urban centers of Cuzco, Arequipa, La Paz, Charcas, Potosí, and Chuquisaca.

Acosta also benefited from the previous experience of two scholars of similar stature, Juan de Tovar in Mexico and Juan Polo de Ondegardo in Peru. Indeed, Acosta's chapter on the people of the valley of Mexico is based on the so called "Tovar Manuscript," which either Tovar sent to Acosta or Acosta obtained directly from Tovar when he went to Mexico. That Acosta had the "Tovar Manuscript" is without a doubt. How he obtained it is not clear, but in the last analysis it is not extremely important. There was enough circulation of information between the Spanish colonies in the Indies to assume that one way or another this important manuscript (which has been edited several times since the nineteenth century) was in his hands.

Soldiers, explorers, and missionaries produced an impressive amount of writing, codifying the information they learned about the people, places, plants, animals, atmospheric conditions, and "elements" (as Acosta puts it, meaning air, water, earth, and fire) of the New World. The enormous impact this writing produced in the European mind (mainly men's minds and mainly Spanish and Portuguese) is not easy to imagine five centuries later. Of course, the issue is not whether Europeans (Spanish and Portuguese) were the "first" to arrive in what is today the Americas and what back then, for the Spaniards, was the New World, Indias Occidentales, or las Indias, as Acosta has it. European intellectuals (or men of letters) put themselves in a situation in which an expected existing entity (e.g., the Indies), had to be imagined and constructed otherwise (e.g., as Indias Occidentales—the Spanish possessions in America—and Indias Orientales—the Spanish possessions in East Asia). The fact that Spaniards and Portuguese found people already "there" is a clear indication that these Europeans were not the first to arrive. What should be understood is why the Spaniards thought, as Francisco de Gómara (a Dominican friar) put it in 1555, that the discovery of the Indias Occidentales was the most extraordinary event since the creation of the

world. Thus, although Europeans historically were not the first to "discover" the Indias Occidentales or the Americas, it has become "as if" this were the case. And that case at the end of the sixteenth century was the assumption under which Acosta was working and under which he wrote *Historia natural y moral de las Indias*.

It is important to recognize, however, that Acosta's goal was not to write a "history" of the Indies but to convert the Indians to Christianity. He did not write the *Historia* guided by the sole desire to understand what until then was beyond the limited knowledge of Renaissance men. As a matter of fact, in Acosta's mind the *Historia natural and moral de las Indias* was conceived as an introduction to (in his own words) a more important manuscript he had written before, perhaps toward the mid-1570s. That manuscript, published with the title *De procuranda Indorum salute,* was a treatise on what at the time was considered a form of liberation theology. Writing the history, which indeed is mainly a description of nature and mores, was for him a preliminary step toward the conversion of the Indians to Christianity. The project of "liberating" (with reference to the theology of salvation) the Indians from the devil was simultaneously an ethical project destined to achieve the "spiritual conquest" of the Indias Occidentales.[2] To understand why this was the case, it should be kept in mind that Acosta was working within the conflicting ideologies of the Church and the Crown. From the perspective of the Church, the "discovery" of America was understood as part of a divine and global design for the conversion of the heathen to Christianity. From the perspective of the Crown, America was part of southern Europe's commercial hegemony. The Crown of Portugal was far ahead in the oceanic commercial navigation of the emerging southern powers. Genoa, Florence, and Venice were indeed strong city-states, in the fifteenth century, but none had the geographical location of Portugal in relation to the Atlantic nor Portugal's history at the margin of the Mediterranean powers. By the second half of the fifteenth century, the kingdom of Portugal had navigated the Atlantic to the south of Africa and crossed the Indian Ocean toward India and Ceylon. At that time, the kingdom of Castile (later Spain) was still an incipient project propelled by the strong desire to Christianize the world.

Prologues or introductions to reprinted and translated texts are expected to be basic guides for the reader not familiar with the text. In the particular case of Acosta's *Historia* this task has already been accomplished, in a stellar way,

by Mexican historian and philosopher Edmundo O'Gorman in his prologue to the Mexican edition of 1940. The prologue, eighty pages long, is a detailed exercise in textual interpretation. Unusual at the time—though being unusual was one of O'Gorman's trademarks—he blatantly stated a position that has a family resemblance to British New Criticism. However, O'Gorman was defending a position contrary to one of its main principles, the "intentional fallacy." While the intentional fallacy discredited textual interpretation based on the intention of the author as a romantic legacy in literary criticism, O'Gorman was addressing the field of historiography. Historians were chastised in the following paragraph.

> In general one could say that the kind of texts known as historical sources have received serious and critical attention on the part of the historians but an attention that I consider insufficient. Historians tend to accept that historical sources are, so to speak, gold mines from which to extract data. The least one could say today about this position is that it is absolutely inefficient. It is impossible to ignore, at this time and age, that a text, or a source, is the response of a will, which, in its turn, is supported by an indefinite series of presuppositions. ([1940] 1972, 166–67)

Putting his money where his mouth was, O'Gorman devoted about sixty pages of his lengthy and useful introduction to tracing the meaning of *natural* and *moral* from antiquity to Acosta. He sees in the two components of the title the basic structure of the narrative itself as well as a correspondence between the structure and the dominant mental frame at the end of the sixteenth century. Later O'Gorman's historiographical principles would receive the name, in France, of *histoires des mentalitées.* Allow me to repeat with some variations, for those who are not interested in going back to O'Gorman's prologue, the summary he offered of Acosta's book.

In book I, Acosta deals with issues related to cosmology and geography, geography and history, and what today we would understand as anthropological matters. Regarding the first set of issues (cosmology and geography), the shape and size of the earth were not clear at the time, as it was also uncertain whether the antipodes (i.e., the opposite ends of the earth from the point of view of the European observer) were inhabited.

The second aspect developed in Acosta's book I, the geohistorical aspect,

was devoted to elucidating the "existence" of a continent that had been unknown until then to most of Mediterranean Europe. There are reasons to believe, however, that other Europeans had reached what is today known as America before Columbus. And surely the fact that the continent was inhabited from north to south is more than proof that it had been "discovered" centuries before!! The question, then, is not *who* was the first but *why* and *by whom* Columbus's "discovery" of America *was constructed as the first*. It was taken for granted that the inhabitants of the Americas, the Amerindians, would have been there from eternity, from the very creation of the world. The presupposition, in other words, was that during the creation of the world people were placed in specific territories and stayed in those places until southern Europeans and Christians "discovered" both the continent and the people who came with it. This is not the approach Acosta took on this issue, but it is certainly a crucial issue he addressed and one of the main concerns for sixteenth-century Europeans in the Iberian Peninsula as well as in the south of Europe and the Ottoman Empire.[3]

The third theme of book I was prompted by questions about the origins of the inhabitants of the New World. Acosta surmised that the people of the Indies had moved from Asia through the Bering Strait, a hypothesis that at the time was quite advanced. However, the *idea* that Columbus had discovered the Indies was such a *reality* that Acosta did not consider the people who arrived from Asia to have discovered it. That is why the question is not so much who was the first but who had the opportunity, the desire, and the power to construct himself as the first.

Book II is devoted to a crucial issue of the time: whether the equator ("the burning zone") was inhabited. It was also uncertain whether the tropical zone between the Atlantic and the Pacific was habitable because of the extreme heat. This was the wisdom, transmitted by those who inhabited the northwest end of the Mediterranean, that Acosta refuted, although he did not question Aristotle's authority, based on his experience in Greece, about areas of the planet he did not know. Acosta only questions the veracity of Aristotle's statement, not the foundation of his epistemic principles. Books I and II were originally written in Latin, and their function was to provide a context for the project of converting the Amerindians to Christianity that, as I have said, he had developed in *De procuranda Indorum salute,* published around 1585. It was a treatise on religious conversion. These two chapters,

entitled "Natura Novi Orbis," were the introduction to *De procuranda,* as Acosta himself explains in the prologue of his *Historia.* Both chapters played the role of wild cards by serving as the prologue of both a treatise on religious conversion and an *historia*.[4] This fact reveals the complexity of a project that involved epistemology and religion. Both chapters bear witness to Acosta's awareness of the enormous epistemic transformations that were changing the *known* (i.e., the available knowledge on the planet and the universe) and opening up to the *unknown*. Grasping that epistemic transformation was essential to the project of conversion to Christianity. And that is precisely the place and the role that Acosta's book occupied in both the history of the Spanish conquest and the history of Western epistemology.

Book III is entirely devoted to the "natural" configuration of the Indies. It is a treatise on climatology and discusses the novelty of the atmosphere in the Indies, the winds, the waters (oceans, lakes, rivers, ponds, etc.), the properties of the land, and volcanic heat. The apparent random order of the description is indeed only apparent since Acosta follows a well-established cognitive pattern going back to Greek natural philosophy and the four basic elements in the creation of the universe: air, water, earth, and fire. The four basic elements that explain the creation of the universe are complemented, in book IV, by the Christian trilogy of the chain of being. The natural order of things, inscribed in God's creation of the universe, was an ascending order that moved from the inanimate (rocks, minerals) to plants to animals.

Following a symmetrical pattern common to the Renaissance organization and presentation of knowledge, Acosta devotes the next two books (V and VI) to "man" (or human beings), conceived, according to the chain of being's model, to occupy a niche above animals (see my commentary at the end of this volume). "Rational animals" was the expression employed at the time to distinguish human beings from the rest of the animal kingdom. Briefly stated, these two books deal with the "moral" aspect of the *Historia.* Book V is entirely devoted to "religion" and book VI to a variety of topics (education, the writing system, chronology, politics, the economy) that today one would be inclined to summarize under the name "culture." However, in European Renaissance terminology what I call here religion and culture were both subsumed under the moral dimension and differentiated from the natural.

Up to this point Acosta's *Historia* follows a symmetric pattern. The first

two books are devoted to the place of the Indies in the configuration of the earth. The next two books are devoted to minerals, plants, and animals, and the following two are devoted to human beings. Thus far, Acosta's *Historia* has been about the present rather than the past. Book VII breaks the symmetry in two ways. First, it introduces an uneven number of chapters, and second it introduces the past. Acosta, like many other missionaries, soldiers, and men of letters, did not belong to the society of which the history was to be written. On the one hand, "history" was not yet a discipline authorizing, from a local perspective, the writing of the history of the world (as in Hegel's lessons in the philosophy of history, published in 1822). On the other hand, Amerindian conceptualizations and uses of the past did not correspond to European history.

Last but not least, the *Historia natural y moral de las Indias* was read within the confines of Spanish history and its Roman and Greek antecedents. It was, in other words, read within the confines of the colonial histories framed from the perspective of the national ideology that came after the colonial period. It was translated into several European languages, as mentioned earlier, during the Spanish colonial period (the sixteenth to eighteenth centuries), but it was not interpreted or studied during that period. The book became an object of study when the era of imperial Spain was replaced with the period of nation building. In Latin America the colonial period ended with the independence of several Spanish American countries. It is time to understand Acosta's work in the larger frame of imperial conflicts, of the process that we call globalization. Acosta's book was published about twenty years before the publication of Francis Bacon's *The Proficiency and Advancement of Learning Divine and Human,* which announced a change of paradigm and imperial power. Although Latin was common to Acosta and Bacon, the former belonged to the Latin cultures of the south (people who spoke Spanish, Italian, and Portuguese) while Bacon belonged to the Anglo cultures of the north (people who spoke Anglo-Saxon and Germanic languages). The Reformation and the Counter-Reformation helped widen the divide between north and south, between Protestant and Catholic, and between a new approach to science and knowledge in the north and the humanistic culture of the south. To understand Acosta's book at this intersection it is necessary to keep in mind a change that is noticeable in the principles upon which knowledge was

being produced as well as a change that took place in the reasoning that justified the production and transformation of knowledge itself. First of all there was a change of languages. Acosta was writing in Latin and Spanish, Bacon in Latin and English. At that point the difference may not have been as clearly visible as it became two hundred years later when England was displacing Spain in world hegemony. Second, Acosta found himself in a very epistemologically multicultural scenario. He situated himself within the Greco-Roman-Christian tradition, although he was aware that Judaism and Islam were strong and competing alternatives. Furthermore, he faced the novelty of having to think about nature and people who had been, until then, outside the frame of knowledge he was embracing. Bacon, instead, found himself in a much less diversified scenario, as the reformation of the Church in the second half of the sixteenth century had already established a frontier between Catholic and Protestant Christians. Protestants in the north had been much less exposed to the variegated multiculturalism of the Mediterranean than Catholics in the south. And, third, with the increasing national ideology elaborated around the idea of nation-states, in the eighteenth century history also became entrenched in national languages. Consequently, when one goes to the library and reads about Acosta and Bacon one never finds that the work of one illuminates the work of the other. Acosta remains within the Spanish memory of the "discovery." Bacon is part of the foundation of "modernity," and he is either read in the context of British history or in the context of European philosophy, which means English, French, and German but certainly not Spanish, Italian, or Portuguese. My invitation to the reader in this introduction, and in the commentary at the end of this book, is to move away from national ideologies in understanding the past and to look at the constitution and transformation of the modern/colonial world and globalization from 1500 to the present. If we do not intend to read Acosta in this new context, why would we be interested in reprinting his classical book, *Historia natural y moral de las Indias?*

Acosta, as well as many others, found himself not only confronting unknown people but confronting an unknown past. Toward the end of the sixteenth century a significant number of narratives existed about the memories of Europe as well as narratives accounting for other civilizations such as those of China, India, or Islam. Amerindians' past was ignored. Furthermore, the conception Acosta had of history was linked to alphabetic writing

(see book VI). Since history presupposed, for Acosta and other men of letters, alphabetic literacy and Amerindians were not alphabetically literate, they were considered to be people without history. Acosta was one of those who appointed themselves to write the history Amerindians did not have.

The reader of Acosta's fascinating *Historia* should keep in mind what is constantly absent and silenced in the narrative, that is, Amerindians' descriptions and conceptualizations of everything Acosta writes about without acknowledging Amerindians' knowledge of them. I have devoted some pages of the commentary to elaborating this point. While it is necessary to update the reading of the classical texts of the "discovery and conquest," the time has arrived to read them bearing in mind what has been omitted as well as what has been recorded. The issue is not trivial. The silencing by Acosta (as by many others) did not mean absence or replacement. At the beginning of the twentieth century the "silence" and the "absences" (i.e., the unknown) have come back in various and unexpected forms. Amerindians' social movements are fighting not only for their rights to land but for their epistemic rights. Ecological movements are articulating a discourse that approximates epistemic and ethical principles that were common ground before modernity and progress considered them diabolic, folkloric, or obsolete. Gaia science, curiously enough, could have been developed by Amerindian intellectuals if they had had the opportunity to expand their knowledge instead of being suppressed and negated.

Acosta's classical *Historia* should be read not only for what he says but, and perhaps mainly, for what he hides, certainly unintentionally, at the limits of his Christian beliefs.

Notes

1 For the life of Acosta and his role and contributions in and to the Jesuit order, see Burgaleta 1999.

2 On *De procuranda Indorum salute,* see Pereña 1984.

3 See, for instance, Kafadar 1995 and Brotton 1998.

4 For the conception of history in the sixteenth century, see O'Gorman's introduction to Acosta's book ([1940] 1972) and Mignolo's essays on the letters, chronicles, and histories of the discovery and conquest (1981; 1982).

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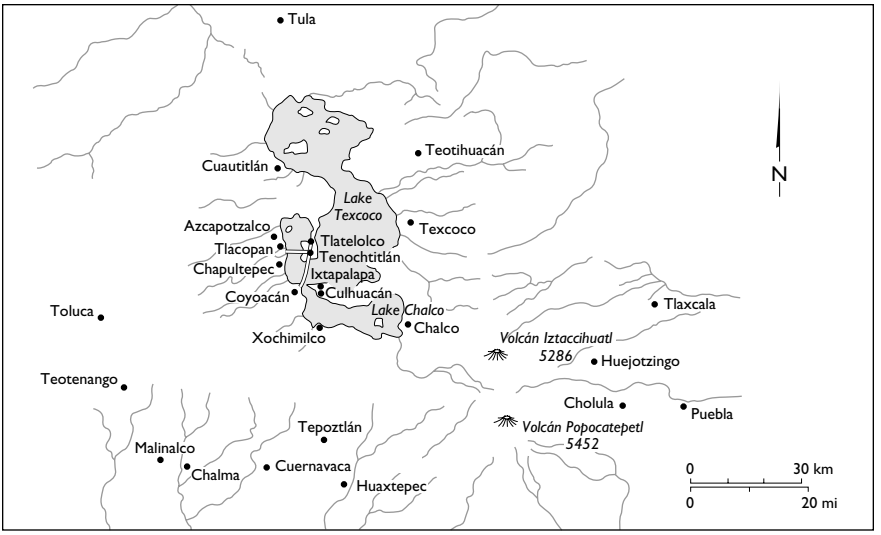
NATURAL AND MORAL HISTORY OF THE INDIES

Regional map of the Andes with major preconquest and colonial locations. Adapted from Sabine MacCormack, *Religion in the Andes: Vision and Imagination in Early Colonial Peru* (Princeton University Press, 1991), p. xvi.

Regional map of Mesoamerica. Adapted from Inga Clendinnen, *Aztecs: An Interpretation* (Cambridge University Press [1991] 1993), p. xiv.



Map of the Valley of Mexico with preconquest locations. Adapted from Inga Clendinnen, *Aztecs: An Interpretation* (Cambridge University Press [1991] 1993), p. xv.

PRINTING PERMISSION GRANTED BY KING PHILIP II

BECAUSE WE WERE INFORMED that you, José de Acosta of the Society of Jesus, had written a book in the Spanish language entitled *Natural and Moral History of the Indies,* into which you had put much labor and care, and you requested and implored Us, we grant you permission to allow it to be printed in these Our realms under ecclesiastical privilege for ten years or for as long as We please or Our pleasure extends.[1] The book having been seen by the members of Our council, and since by its order investigations of the present volume were made according to the terms of the pragmatic recently issued by Us, it was agreed that We should issue this Our license in this matter, and I gave My agreement. Hence, We give you license and permission for the period of ten years, counting from the day of the issuance of the permission, to print and sell in Our realms the aforesaid book of which mention is made above, from the original, which was examined in Our

1. Acosta was a member of the Society of Jesus, commonly known in English as the Jesuits, an order founded by the Spaniard Ignatius Loyola in 1534. King Philip II (1527–98) was hesitant to allow the Jesuits to travel to the New World because he feared conflict with the Dominican, Franciscan, and Augustinian orders, which were already well established in Mexico and Peru. Moreover, the Spanish Crown was wary of potential confrontations over jurisdiction with Rome, the home of the Jesuits' centralized power structure. Despite these concerns, King Philip granted his approval, and the first five Jesuits went to the New World in 1568 as missionaries in Peru. In 1571, at the age of thirty-one, Acosta followed these pioneers. The Jesuits are best known for their establishment of schools in colonial cities and their missionary work with indigenous peoples in the *reducciones* of Paraguay. The ouster of the Jesuit order in 1759 from Brazilian territories and 1767 from the Spanish colonies was grounded in long-standing political conflicts with the Crown and was ushered in by policy changes of the Bourbon monarchy. On the Jesuits, see the various works of Nicholas Cushner, including *Lords of the Land: Sugar, Wine, and Jesuit Estates of Coastal Peru* (Albany: State University of New York Press, 1980); Herman W. Konrad, *A Jesuit Hacienda in Colonial Mexico: Santa Lucia, 1576–1767* (Stanford: Stanford University Press, 1980); and Magnus Morner, ed., *The Expulsion of the Jesuits from Latin America* (New York: Knopf, 1965).

council, with each page certified, and signed at the end of the book by Christóbal de León, Our personal scribe, of those who reside in Our council; and that, before it is sold, you bring it before them together with the original that you presented to them previously, so that it can be seen if the printed book is in agreement with the original, or bring public proof that a corrector appointed by Us saw and corrected the printed version by the aforesaid original version. And the errors pointed out by him for each book so printed shall also be printed and the price set for each volume that you have and will carry away. And We order that during the aforesaid period of time no one may print it without your permission and that anyone who prints or sells it incurs the penalty of losing all and any type of molds and machinery that he possesses as well as the books that he shall have sold in these realms and will in addition incur a fine of fifty thousand *maravedises* in each case that occurs. Of this fine one-third shall be for Our chamber, another one-third for the person who discovers the fault, and the remaining one-third for the judge who issues the sentence. And we order those of Our council, the president and members of Our courts of justice, mayors, officers of Our household and court, and chancelleries, and all the governors, assistants, major and minor officers, and other judges and justices in any of Our cities, towns, and villages of Our realms and possessions, present ones as well as those to come, to keep and fulfill this Our license and favor that We do for you, and let no one transgress it or allow it to be transgressed in any way whatsoever, on pain of being deprived of Our favor and a fine of ten thousand *maravedises* for Our chamber. Issued in San Lorenzo on the twenty-fourth day of the month of May in the year one thousand five hundred and eighty and nine.

I THE KING
By order of the King Our Lord
Juan Vázquez

PRINTING PERMISSION GRANTED BY GONZALO DÁVILA, SOCIETY OF JESUS

I, GONZALO DÁVILA, PROVINCIAL OF the Society of Jesus in the Province of Toledo, by special instruction that I have received for the purpose from Father Claudio Aquaviva, our director general, give permission to print the book of the *Natural and Moral History of the Indies,* which Father José de Acosta, a religious of that society, has written; and it has been examined and approved by learned and grave persons of our society. In testimony of which, I gave this permission signed with my name and sealed with the seal of my office. In Alcalá, eleventh of April of 1589.

Gonzalo Dávila
Provincial

CONTENT APPROVAL GRANTED BY FRAY LUIS DE LEÓN

I HAVE SEEN THIS *Natural and Moral History of the Indies* written by Father José de Acosta of the Society of Jesus, and it is Catholic in matters pertaining to the doctrine of the Faith, and as for the rest worthy of the great learning and prudence of the author and worthy of causing all who read it to praise God, who is so wonderful in all his works. Given in San Phelipe de Madrid, on May fourth, 1589.

Fray Luis de León[1]

1. In the sixteenth century, the Inquisition regularly submitted texts to a university committee for review. Acosta's work fell under the review of Fray Luis de León (1528–91), an Augustinian friar best known for his *siglo de oro* poetry and his exposition on marriage, *La perfecta casada*. Even though he had never been to the Americas, León read and approved Acosta's chronicle of New World history in his capacity as a chaired professor of sacred scripture at the University of Salamanca. A history of the New World, be it an account of Spanish actions or a philosophical treatment of the origins of native peoples, carried weighty political consequences. Acosta wrote during an era of hypersensitivity to the study of indigenous history because in 1577 King Philip II had ordered the censorship of all publications on native customs and rituals. See Fray Diego Durán, *The History of the Indies of New Spain,* translated and edited by Doris Heyden (Norman: University of Oklahoma Press, 1994), xxxii, citing Georges Baudot, *Utopia e historia en México: Los primeros cronistas de la civilización mexicana (1520–1569)* (Madrid: Espasa-Calpe, 1983), 471–500.

DEDICATION TO THE INFANTA DOÑA ISABEL CLARA EUGENIA DE AUSTRIA

To Her Most Serene Highness
the Infanta Doña Isabel Clara Eugenia de Austria
My lady:

The Majesty of the King our lord having given me permission to offer to Your Highness this little work entitled *Natural and Moral History of the Indies,* I should not like to have any lack of consideration attributed to me in wishing you to occupy your time, which Your Highness in so saintly a manner spends on matters of importance, by directing it to subjects that because they have to do with philosophy are somewhat obscure and that seem not to be suitable owing to the fact that they deal with heathen peoples.[1] But because knowledge and speculation concerning the works of Nature, especially if they are remarkable and rare, cause natural pleasure and delight in persons of exquisite perception, and because news of strange customs and events also pleases by way of its novelty, I believe that my book can serve Your Highness as honorable and useful entertainment. It also offers an opportunity to observe the works that the Most High has performed in the fabric of this world, especially in those parts that we call the Indies. Because these are new lands they are worthy of consideration, and because they belong to new vassals whom Almighty God has given to the Crown of Spain I believe that they are

1. The recipient of Acosta's dedication, the infanta Doña Isabel Clara Eugenia de Austria (1566–1633), was the elder daughter of King Philip II, born to his third wife, Isabel de Valois. She was twenty-four years old when Acosta made the dedication in the *Historia natural y moral de las Indias.* As a young girl, in the wake of the death of the queen (Philip's fourth wife, Anna of Austria, who died in 1580), she had become her father's closest confidante. Acosta anticipated that the infanta would read his work and recommend it to her father. Her energies, however, focused largely on Spain's European possessions and she served as queen of the Netherlands from 1598 to 1621.

not completely alien and removed from your consideration. It is my desire that Your Highness may pass a few hours of time in reading it, which is the reason it is written in the vulgar tongue, although, if I am not mistaken, it is not for common intellects. And it may even be that in this as in other things, if my little book pleases Your Highness and you show your pleasure in it, perhaps the King our lord also may deign to spend some time on the account and consideration of things and people so intimately connected with his royal Crown. To His Majesty I dedicated another book on the preaching of the Gospel in the Indies, which I composed in Latin.[2] And my desire is that all I have written may serve to make known which of his treasures God Our Lord divided and deposited in those realms; may the peoples there be all the more aided and favored by the people of Spain, to whose charge divine and lofty Providence has entrusted them. I entreat Your Highness that, if in some places this little book does not seem pleasant to read, you will not fail to read the other parts, for it may be that some of them will please you. And if this proves to be the case they cannot help but be of great use, for this favor of yours will work to the good of lands and people who are so much in need of it. May God Our Lord keep and prosper Your Highness for many years, as your servants daily and affectionately beseech His Divine Majesty.

Amen. In Seville, March first, in the year of 1590.

José de Acosta

2. Acosta refers here to his 1588 text. See his *De procuranda Indorum salute,* edited by L. Pereña (Madrid: Consejo Superior de Investigaciones Científicos, 1984).

PAPER TAX ORDERED BY CHRISTÓBAL DE LEÓN

I CHRISTÓBAL DE LEÓN, PRIVY SCRIBE of the King Our Lord of those who reside in his Council, attest that, having been viewed by the lords of the Council, a book entitled *Natural and Moral History of the Indies,* which Father José de Acosta of the Society of Jesus has had printed with its permission, each sheet of the aforesaid book printed on paper be taxed at the rate of three *maravedises* and ordered that before it is sold the testimony of this tax be printed on the first page of each book. And so that this may be official, by order of the aforesaid lords of the Council and at the request of Father Diego de Lugo, procurator general of the aforesaid Society of Jesus, I do now so attest. Done in the city of Madrid on the thirtieth day of April in the year one thousand five hundred and ninety.

Christóbal de León

PROLOGUE TO THE READER

MANY AUTHORS HAVE WRITTEN sundry books and reports in which they disclose the new and strange things that have been discovered in the New World and the West Indies and the deeds and adventures of the Spaniards who conquered and settled those lands. But hitherto I have seen no author who deals with the causes and reasons for those new things and natural wonders, nor has any made a discourse and investigation of these matters; nor have I encountered any book whose matter consists of the deeds and history of those same ancient Indians and natural inhabitants of the New World.[1] Indeed, both of these things are of no small difficulty. The first, because it deals with natural phenomena that fall outside the philosophy

1. A summary of Acosta's precursors in New World literature provides a mark by which to measure his particular contribution among the "sundry books and reports." By the publication date of Acosta's *Historia natural y moral de las Indias,* numerous scholars had taken pen to paper in a quest to define some aspect of the New World experience for a European audience. The first writings came from early explorations in the Caribbean, namely, the letters and journals of Christopher Columbus; the first study of the native peoples by Fray Ramón Pané, *An Account of the Antiquities of the Indians;* and Fray Bartolomé de Las Casas's famous polemic *The Destruction of the Indies.* Then came the heroic tales of conquest on the mainlands of Mexico and Peru from the perspective of conquerors like Hernán Cortés and foot soldiers like Bernal Díaz del Castillo and Francisco Jérez. By the mid–sixteenth century, when abuse and disease threatened the native population, a group of missionaries in New Spain created a corpus of ethnographic and linguistic studies that preserved histories of native Mexican culture. The most famous of these early Indies ethnohistorians is the Franciscan friar Bernardino de Sahagún, who, along with native elites, compiled an encyclopedic study of Aztec culture entitled *The General History of the Things of New Spain,* also known as *The Florentine Codex.* In Peru during the same period some of the most detailed reports of native history and customs, including Pedro Sarmiento de Gamboa's *Historia Indica* and Juan de Betanzos's *Narrative of the Incas,* were written at the behest of the Crown.

Scholars who have examined indigenous influence on the production of history in this era include, for the Andes, Sabine MacCormack, *Religion in the Andes: Vision and Imagination in Early Colonial Peru* (Princeton: Princeton University Press, 1991); and Frank Salomon, "Chronicles of the Impossible: Notes on Three Peruvian Indigenous Historians," in *From Oral to Written Expression: Native Andean Chronicles of the Early Colonial Period,* edited by Rolena Adorno (Syracuse: Maxwell School of Citizenship and Public Affairs,

formerly received and argued, such as the fact that the region called the Torrid Zone is very humid, and in places very temperate, and that it rains there when the sun is closest, and other similar things. And those who have written of the West Indies have not claimed this much philosophy, nor have most of them even made mention of such things. The second, because it deals with the deeds and history of the Indians themselves, and required many and very intimate dealings with the Indians, which was not the case of most of those who have written of the Indies, either because they did not know their language or because they did not bother to learn about their ancient history; hence, they were satisfied to recount a few superficial things. Because I wanted to have more specialized knowledge of the Indians' affairs, I resorted to experienced men who were very knowledgeable in these matters, and from their conversation and abundant written works I was able to extract material that I judged sufficient to write of the customs and deeds of those people and of the natural phenomena of those lands and their characteristics, with the experience of many years and my diligence in inquiring and discussing and conferring with learned and expert persons.[2] I also felt that I was offered some information that could be used and taken advantage of by intellects superior to mine, either to search for the truth or to pass over, if what they found in these pages was to their liking. Thus, although the New World is

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1982), 9–40. For Mexico, see Enrique Florescano, *Memory, Myth, and Time in Mexico: From the Aztecs to Independence* (Austin: University of Texas Press, [1992] 1994); and Serge Gruzinski, *The Conquest of Mexico: The Incorporation of Indian Society into the Western World, 16th–18th Centuries,* translated by Eileen Corrigan (Oxford: Blackwell, [1988] 1993).

Acosta accurately assessed his precursors in the field when he concluded that his work was distinct. He had earned his authorial voice on the basis of his ten-year stay in the Indies. Yet he knew that despite his travels and observations he had spent relatively little time working directly with the native population in comparison with scholars like Sahagún. And no evidence suggests that he had other than a cursory knowledge of native languages. Acosta's valuable contribution stemmed from his ability to incorporate both central and peripheral regions of Mexico and Peru, and even China and Japan, into his realm of observation. To this expansive view of the New World, he added "cause and reason." New World realities often contradicted Old World philosophy or proved difficult to reconcile with Catholic religious doctrine. The immense popularity of Acosta's systematic cataloging of New World plants, animals, minerals, and native customs speaks to the potential of the New World experience to influence the late-sixteenth-century European intellectual climate and hasten the dawn of scientific reasoning.

2. In this passage Acosta reveals his method and sources for writing the *Historia natural y moral* and provides his definition of what it meant to write history in 1590. On the issues of genre in the Renaissance, see Walter D. Mignolo, "Cartas, crónicas, y relaciones de descubrimiento y de la Conquista," in Luis Iñigo Madrigal, *Historia de la literatura hispanoamerica, Epoca Colonial,* vol. 1 (Madrid: Catedra, 1982), 57–116; and "El metatexto historiográfíco y la historiografía Indians," *Modern Language Notes* 96 (1981): 358–402. See also his

not new but old, for much has been said and written about it, I believe that this history may be considered new in some ways because it is both history and in part philosophy and because it deals not only with the works of nature but with problems of free will, which are the deeds and customs of men. That is why I gave it the name *Natural and Moral History of the Indies,* including the

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"On the Colonization of Amerindian Languages and Memories: Renaissance Theories of Writing and the Discontinuity of the Classical Tradition," *Comparative Studies in Society and History* 34, no. 2 (1993): 301–330.

To compensate for his lack of expertise on the native population, Acosta relied on informants, only some of whom he acknowledged directly in the text. Two of the "learned and expert persons" who most influenced Acosta's history of the Indies were Juan de Tovar and Juan Polo de Ondegardo. Although these men were not cited in the notes of the original 1590 version, as were the ancient philosophers and passages from Scripture, they were acknowledged in the body of the work. Acosta met the Peruvian expert Juan Polo de Ondegardo during his travels around Peru in the late 1570s and early 1580s. After arriving in Peru in 1545, Polo's early activities included helping Gasca to sort out the civil war and serving as governor and captain general of Charcas, where he visited the region to try and squelch rebellion. The Viceroy Marqués de Cañete appointed him the *corregidor* of Cuzco from 1558 to 1561, during which time he supervised expeditions to locate and destroy temples of the dead Inca kings, ostensibly looking for treasure as well. This was one of the most formative experiences for his work on Inca religious and state practices. When Viceroy Toledo visited Peru, Polo was placed in charge of the *visita* of the entire viceroyalty. Toledo, and other Spanish administrators, sought opinions from Polo about governing the native population because he had earned a reputation as an expert through his numerous writings, including *Instrucción contra las ceremonias y ritos que usan los indios conforme al tiempo de su infidelidad: Informaciones acerca de la religión y gobierno de los Incas,* edited by Horacio H. Urteaga (Lima: Imprenta Sanmarti y Ca., 1916); and *Relación del linaje de los Incas y como extendieren ellos sus conquistas* [ca. 1560–72], published in English as *Narratives of the Rites and Laws of the Incas,* translated and edited by Clements R. Markham (London: Hakluyt Society, 1873). Acosta would have been familiar with Polo's work because his tract on idolatry was included in the Third Council of Lima. Acosta's proximity to Toledo would have allowed him access to other reports prepared for the viceroy, notably Pedro Sarmiento de Gamboa's *Historia Indica.*

Acosta made the acquaintance of fellow Jesuit Juan de Tovar during his stay in Mexico where the two exchanged information, including the well-known "Tovar Manuscript," Acosta's main source on ancient Mexican history (ms. no. 1586 in the John Carter Brown Library, Brown University). The manuscript was published for the first time in 1860 under the title *Historia de los yndios mexicanos,* after its discovery in 1856 by José Fernando Ramírez. Hence it was known as the *Codex Ramírez.* For contemporary editions of the manuscript, see George Kubler and Charles Gibson, *The Tovar Calendar: An Illustrated Mexican Manuscript, ca. 1585,* vol. 2 (New Haven: Connecticut Academy of Arts and Sciences, 1951), as well as *Relación del origen de los indios que habitan esta Nueva España según sus historias* (Mexico City: Editorial Porrúa, 1975).

Tovar read and used the work of his relative the Dominican Fray Diego Durán. Thus, many of Acosta's Mexican revelations come, albeit indirectly, from Durán's work. Acosta likely met him as well, since Durán returned to Mexico City from rural assignments in 1585 and remained there until his death in 1588. Durán, a native of Seville, grew up in Texcoco, Mexico, and spoke fluent Nahuatl, the language of the Aztec civilization and the Mexica people. His writings on the religion, calendar, and history of the native peoples of New Spain are exemplary for their ethnographic detail. Given his proximity to native informants who lived in the preconquest era and his facility with the language, he was able to provide information not available to other

two things in this aim. In the first two books I deal with everything concerning the heavens and climate and living conditions of that hemisphere; initially I wrote these books in Latin and now have translated them, using more license as a writer than the accuracy of a translator, to better adjust my writing to those for whom books are written in the vulgar tongue. In the two subsequent books I deal with whatever is remarkable about the elements and natural mixtures, such as metals, plants, and animals, that are found in the Indies. The remaining books describe what I have been able to discover and what seems worthy of telling about men and their deeds (I mean the Indians themselves and their rites and customs, government and wars, and great events).[3] The history itself will explain how the ancient sayings and doings of the Indians have come to be known, since they had no writing like us, for it is

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authors. His work has been published in translation as *The History of the Indies of New Spain,* translated and edited by Doris Heyden (Norman: University of Oklahoma Press, 1994).

In addition to the texts produced by Durán and Tovar with the help of native historians, the Amerindian Martín de la Cruz authored an equally critical text on native civilization, healing techniques specifically, now known as the *Codice Badiano.* Although it was written in 1552, it is unlikely that Acosta was familiar with it. For further analysis of the significance of this text, see Walter Mignolo's "Commentary" in this volume.

Although many of Acosta's descriptions of natural history come from what he saw with his own eyes, he surely benefited from the studies of natural history produced by Dr. Francisco Hernández. In response to the great variety of new natural species found in Mexico, King Philip II appointed Dr. Hernández to travel around New Spain studying its plants, animals, and minerals. His field research in New Spain from 1570 to 1577 resulted in the *Rerum medicarum Novae Hispaniae thesaurus.* When he died in 1587, most of his work was unpublished, although copies of it were located in both Mexico and Spain, where Acosta could have consulted them. Hernández's natural history, *De historia plantarum plantae Novae Hispaniae,* was finally printed in 1651, and has now been published in Spanish as *Historia de las plantas de Nueva España,* 3 vols. (Mexico City: Imprenta Universitaria, 1942–46). Although he was sent to the New World solely to explore flora and fauna, Hernández was fascinated by native culture and composed *Antigüedades de la Nueva España,* translated and edited by Don Joaquín García Pimentel (Mexico City: Editorial Pedro Robredo, 1946). It is likely that Acosta consulted the work by Hernández, and, indeed, its existence suggests that Acosta, who is credited with creating a model for the natural history of the New World, had a model himself.

Acosta's use of published and unpublished manuscript sources was always tempered by his own observations and his determination to add reason to descriptions of the New World. In the case of Peru, his lengthy stay provided more eyewitness fodder for his history than did his short visit to Mexico. In addition to incorporating his own experience into the text, Acosta's structure was unique. He aimed to present an encyclopedic, albeit abbreviated, history of the New World. It was the breadth of his observations, in contrast to the depth of Durán or Sahagún, that propelled Acosta's imagination of the Indies to a comparative scope and pushed him to devise his structure of comparative ethnology of native peoples in the Americas, arguably the most novel contribution of the work.

3. Acosta consistently uses the term *Indian,* a word Spanish colonizers introduced in the late fifteenth and early sixteenth centuries to identify the peoples they encountered in the New World. The notes and commen-

no small part of their abilities to have been able to preserve records of ancient times even though they did not use or possess letters of any kind. The aim of this work is that, by disclosing the natural works that the infinitely wise Author of all Nature has performed, praise and glory may be given to Almighty God, who is marvelous in all places. And that, by having knowledge of the customs and other matters pertaining to the Indians, they may be helped to continue and remain in the grace of the high calling of the Holy Gospel, to which he who enlightens from the lofty peaks of his eternity deigned to bring these blind people in these latter days. In addition to this, each reader can also achieve some useful knowledge, for no matter how unimportant the subject a wise man can learn wisdom for himself, and even from the lowest and smallest creatures very lofty thoughts, and very useful philosophy, may be extracted. I need only remind the reader that the first two books of this history or discourse were written while I was in Peru and the other five later in Europe, obedience to my Order having caused my return here.[4] And so some of the books speak of things in the Indies as things present and the others as of things absent. So that this difference in style will not offend, I felt that I should remind the reader here of the reason for it.

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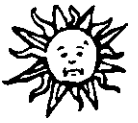
tary of this edition of Acosta's work use the word *Indian* when citing Acosta. Otherwise, *indigenous* is used to refer to any originary community; *Amerindian* to refer to the general native population of the Americas; and specific terms, like *Mexica* or *Pueblo,* to refer to individual peoples.

4. Acosta's itinerary, dictated by his order and Rome, led him to many of the places he would discuss in his *Historia.* He sailed to the New World from Spain in 1571, arriving in Lima in 1572. Although the main indigenous mission of the Jesuits during this early period was at Juli, on the western side of Lake Titicaca, Acosta spent the next fourteen years in Lima or journeying among the major cities of Cuzco, Arequipa, La Paz, Chuquisaca, Pilcomayo, and Potosí. After assisting in an Inquisition trial that sentenced two fellow Jesuits to death, Acosta requested a transfer to Spain. In 1586, he traveled to New Spain, landing in Huatulco, on the southern Pacific coast of Mexico, and then taking up residence in Mexico City for almost one year. In May of 1587, Acosta returned to Spain. He lived and worked in Spain and Rome until his death in 1600. On his biography, see Francisco Mateos, "Introducción," in *Obras del Padre José de Acosta,* Biblioteca de Autores Españoles, vol. 73 (Madrid: Ediciones Atlas, 1954), vii–xlix.

BOOK I



CHAPTER 1 * OF THE OPINION HELD BY SOME AUTHORS THAT THE HEAVENS DID NOT EXTEND TO THE NEW WORLD

The ancients were so far from thinking that this New World was peopled that many of them refused to believe that there was any land in these regions; and, what is more surprising, there were even some who also denied that these heavens that we behold exist here.[1] For, although it is true that most of the philosophers, and the best of them, believed that heaven was all round, as in fact it is, and that hence it surrounded the earth everywhere and enclosed it within itself, despite all this some of them — and no small number, or those of least authority among the holy doctors — had a different opinion, imagining the fabric of this world like that of a house in which the roof that covers it encircles only the upper part and does not surround it everywhere. They offered as justification for this that otherwise the earth would be hanging in

1. Throughout the *Historia,* Acosta excuses the "doctors of the Church" when his New World experiences disprove their beliefs. He does not forgive scholars like Aristotle and Plato, whom he terms the "wise men and vain philosophers." The ancient scholars are representative of Acosta's intellectual formation in Old World philosophy. Acosta would have been influenced by the work of the sixteenth-century Spanish philosopher Francisco Suárez, who exemplified the Aristotelian roots of knowledge popular in the wake of the Council of Trent and the Counter-Reformation. This school of thought came under attack by the early seventeenth century in the writings of Francis Bacon. In the late sixteenth century, Acosta strove to reason and explain the quandaries faced by Europeans with the "discovery" of the New World, and, although the Bible served as the foundation of his theoretical path, he negotiated a trajectory between the texts of the ancients and his personal experiences in the Indies. Anthony Grafton charts this process whereby New World philosophers like Acosta chipped away at the block of paradigmatic ancient texts in the sixteenth and seventeenth centuries in *New Worlds, Ancient Texts: The Power of Tradition and the Shock of Discovery* (Cambridge: Belknap Press of Harvard University Press, 1992).

the midst of the air, which seems a thing devoid of all reason, and also that in every building we see that the foundations are in one place and the roof opposite them; and thus logically in this great edifice of the world, all the heavens must be in one place above and all the earth in a different place below. The glorious Chrysostom, as one who occupied himself more with sacred letters than the human sciences, shows himself to be of this opinion, for in his commentaries on the Epistle to the Hebrews he derides those who affirm that the heavens are round everywhere.[2] He believes that Holy Writ means to indicate something different when it calls the heavens a tabernacle and a tent or awning placed there by God.[3] And the saint goes even further, saying that it is not the heavens that move and progress but the sun and moon and stars that move in the heavens, just as birds move through the air and do not, as the philosophers believe, rotate with the heavens themselves like spokes in a wheel.[4] Theodoret, a weighty author, agrees with this opinion of Chrysostom's, as does Theophilactus in almost every case.[5] And more than all of these Lactantius Firmianus, believing as they do, constantly jeers and mocks at the opinion of the Peripatetics and academicians, who assign a round shape to the heavens and place the earth in the middle of the universe, for it seems laughable to him that the earth can hang in the air as described by them.[6] Hence, his opinion agrees more with that of Epicurus, who said that there is nothing beyond the earth but infinite chaos and abyss. And what Saint Jerome says seems to incline to this opinion, for when writing on the Epistle to the Ephesians he says, "The natural philosopher considers the

2. Saint John Chrysostom, *Homilies on the Letter to the Hebrews,* 14 and 27. Hereinafter, notes from the original annotations of Acosta's work, as printed in the 1962 Edmundo O'Gorman edition of *Historia natural y moral de las Indias* on which this translation is based, will be followed by the notation O'G. The distinction between "sacred letters" and "human sciences" had, at the end of the sixteenth century, a long history that could be traced back to the fourteenth century and the *studia humanitatis,* or *humaniora,* which indicates an intellectual attitude similar to philosophy. Grammar and rhetoric are the central disciplines of the human sciences, or *studia humanitatis,* and language is considered by the humanists as the basic principle of wisdom and instrument of knowledge. See Luis Gil Fernández, *Panorama social del humanismo español (1500–1800)* (Madrid: Alhambra, 1981); Gabriel González, *Dialéctica escolástica y lógica humanista de la edad media al renacimiento* (Salamanca: Ediciones Universidad de Salamanca, 1987); and H. I. Marrou, *A History of Education in Antiquity* translated by George Lamb (New York: Sheed and Ward, 1956).

3. Saint Paul, Letter to the Hebrews, 8, 2 (O'G).

4. Saint John Chrysostom, *Homilies on Genesis,* 6 and 13; *Homilies to the People of Antioch,* 12 (O'G).

5. Theodoretus and Theophilactus, *Commentary on the Letter to the Hebrews,* 8 (O'G).

6. Lactantius Firmianus, *Divinarum Institutionum,* book 3, chapter 24 (O'G).

heights of heaven, and, on the other hand, in the deepest part of the earth and its abysses he finds an immense void."[7] It is said of Procopius (though I have not seen it) that he states in connection with the Book of Genesis that Aristotle's opinion on the shape and circular movement of the heavens is contrary and repugnant to Holy Writ.[8] But we need not be astonished that the aforesaid authors believe and say things like these, for it is well known that they did not pay great heed to the sciences and demonstrations of philosophy, being engaged in more important studies. What seems more remarkable is the fact that Saint Augustine, who was so superior in all the natural sciences and knew so much about astronomy and physics, was yet always doubtful and unable to decide whether or not the heavens surround the earth on every side. "What matters it to me," he says, is "whether we believe that the heavens are like a ball and surround the earth on all sides, with the earth in the middle of the universe like the needle of a balance, or whether we say that it is not so, but rather that the heavens cover the earth only in part, like a large plate hanging above it."[9] In the same place where he says this he gives us to understand (and even states clearly) that there can be no proof, only conjectures to affirm that the heavens are round in shape. And there and elsewhere he considers that the circular motion of the heavens is a doubtful thing.[10] No one should be offended, or think less of the doctors of the Church, if on some point of philosophy and the natural sciences they hold opinions different from what is chiefly received and approved by sound philosophy; for their whole study was to know and serve and preach the Creator, and this they performed excellently. And because they were wholly employed in this, which is the important thing, it is of small concern that they were not always wholly correct in the study and knowledge of creaturely things. Certainly the wise men of our day, and vain philosophers, are more to be blamed, for, although they know and grasp the nature and order of these creatures and the course and movement of the heavens, these unfortunates have not come to know the Creator and Maker of all this. And while all of them were occupied in these excellent deeds and writings they did not rise with their thought to discover their sovereign Author, as divine wisdom

7. Saint Jerome, *Three Books on the Letter to the Ephesians,* book 2, chapter 4 (O'G).

8. Sixtus of Siena, *Biblioteca sancta ex praecipuis catholicae auctoribus collecta,* book 5, note 3 (O'G).

9. Saint Augustine, *De Genesi ad litteram imperfectus liber,* book 2, chapter 9 (O'G).

10. Saint Augustine, *Enarrationes in Psalmos,* 135 (O'G).

teaches;[11] or, even when they acknowledged the Creator and Lord of all, they did not serve and glorify him as they should have done, being vain in their thoughts, for which the Apostle justly blames and accuses them.[12]

CHAPTER 2 * HOW THE HEAVENS ARE ROUND EVERYWHERE AND ROTATE AROUND THEMSELVES

But to come to our purpose: there is no doubt that what Aristotle and the other Peripatetics believed, along with the Stoics,[1] as to the whole heaven being round in shape and moving circularly in its course, is so patently true that we who live in Peru see it with our own eyes, and it is made even more manifest by experience than it could be through any philosophical argument or demonstration. For in order to know that the heavens are round everywhere, and that they girdle and encircle the earth on every side, and to have no doubt of it, we need only observe from this hemisphere that part and region of the heavens that turns around the earth and that the ancients never saw.[2] We need only to have seen and noted the two poles on which the heavens turn as upon their axes: I mean the Arctic and northern pole that is

11. Book of Wisdom, 13, 1 (O'G).

12. Saint Paul to the Romans, 1, 21 (O'G).

1. Plutarch, *De Placitis Philosophorum,* book 2, chapter 2 (O'G).

2. Acosta believed, along with Aristotle and the Bible, that the earth is located at the center of the universe. While this view, based on the Ptolemaic system of astronomy, was widely held, it had been challenged by the work of Nicolaus Copernicus, who published *De revolutionibus orbium caelestium* in 1543. Copernicus's theory that the earth revolved around the sun on a yearly basis was significant because it placed the sun at the center of the universe and recognized that the earth was not singular but existed along with many celestial bodies. See Nicolaus Copernicus, *On the Revolutions,* translated by Edward Rosen, edited Jerzy Dobrzycki (Baltimore: Johns Hopkins University Press, 1978). For further analysis of the ideas of Copernicus during Acosta's lifetime, see Mignolo's "Commentary" in this volume.

In addition to ignoring Copernicus, Acosta omits references to alternative cosmologies, either Native American or African. Thus, he concluded that "we need only observe from this hemisphere" to prove inherited Western knowledge. At the same time he ignored the fact that the Incas, the Maya, and the Mexica (to name just the communities with sophisticated *calendaris* calculus) had themselves created knowledge through observations from this hemisphere. For a wide spectrum of Mesoamerican ancient and current cosmological knowledge, see the useful reader compiled by Johanna Broda, Stanislaw Iwaniszeski, and Lucrecia Maupome, *Arqueoastronomía y etnoastronomía en Mesoamérica* (Mexico City: Universidad Nacional Autónoma de México, 1991). For the Andes, see Gary Urton, *At the Cross-Road of the Earth and the Sky: An Andean Cosmology* (Austin: University of Texas Press, 1981).

seen by those in Europe and this other Antarctic and southern pole (whose existence Augustine doubts).[3] Once the equator has been passed we exchange the south for the north here in Peru. Last, suffice it to say that I myself have sailed more than sixty degrees from north to south, forty on one side of the equator and twenty-three on the other, leaving aside for the moment the testimony of others who have sailed much farther and reached almost sixty degrees south. Who can claim that the ship Victoria, surely worthy of eternal memory, did not win victory and triumph over the roundness of the world, and still more over that illusory void and infinite chaos that the ancient philosophers placed under the earth, since she circumnavigated the globe and encompassed the great ocean's immensity? Who could not accept that by this deed she demonstrated that all the vastness of the earth, no matter how great it is represented to be, is subject to a man and under his feet, since he has succeeded in measuring it? Thus, there is no doubt that the heavens are of a round and perfect shape and that they and the earth, clasping the water, make a perfect globe or ball formed by the two elements, and that it has its boundaries and limits, its roundness and its vastness, which can be sufficiently proved and demonstrated by means of philosophy and astronomy, not to mention those subtle arguments, commonly heard, that the most perfect body (like the heavens) must have the most perfect shape, which is undoubtedly round, that circular motion cannot be equal and firm if it has a corner anywhere or if it bends, as it would have to do if the sun and moon and stars do not rotate around the earth. But leaving this aside, as I say, it seems to me that in this case the moon alone suffices to serve as a faithful witness in the heavens, for it darkens and suffers an eclipse only when the circumference of the earth comes between it and the sun, thus preventing passage of the sun's rays.[4] This would certainly not be true if the earth were not in the middle of the universe, surrounded on all sides by the celestial orbs (though some have questioned whether the moon's light is received from that of the sun). But this is to doubt excessively, for it is impossible to find any other rational cause for eclipses and the quarters and fullness of the moon except transmission of the sun's light. Also, if we think about it, we will see that night is nothing but the darkness caused by the earth's shadow because

3. Saint Augustine, *De Genesi ad litteram imperfectus liber,* book 2, chapter 10 (O'G).

4. Saint Augustine, *Letter 109 to Januarius,* chapter 4 (O'G).

the sun has passed to the other side. But if the sun does not pass to the other side of the earth except by turning at the moment of its setting, making an angle and bending, which would have to be conceded by the person who says that the heavens are not round but cover the face of the earth like a plate, it therefore clearly follows that there could not be the differences that we observe between day and night, which in some regions of the world are long and short at different times and in others are always equal. What the holy doctor Augustine writes[5] in the books of his *Genesi ad litteram* is that all the oppositions and conversions, and elevations and descents, and whatever other aspects and dispositions of the planets and stars, can be reconciled if we understand that they move while the heavens themselves are still and motionless. This is very easy for me to understand and should be easy for anyone who allows himself to give his imagination free rein. For if we assume that each star and planet is a body in itself, and that an angel moves it as an angel carried Habakkuk to Babylon,[6] who can be so blind as not to see that all the differences that appear in the aspects of the planets and stars may come from the diversity of motion given them by He who moves them by his will? Therefore, sound reason cannot admit that the space and region where it is supposed that the stars move, or fly, ceases to be elemental and corruptible, because it divides and withdraws when the stars pass, for certainly they do not pass through a vacuum; and, if the region in which the stars and planets move is corruptible, then they also must surely be so by their nature and consequently must change and alter and at last come to an end. For naturally what is contained is not more durable than the container. Therefore, to say that those celestial bodies are corruptible neither agrees with what Scripture tells us in the psalm, that God established them forever, nor is consistent with the order and preservation of this universe.[7] Moreover, to confirm this truth that the heavens themselves are what move, and that the stars rotate in them, I say that we can prove it with our own eyes, for we manifestly see that not only do the stars move but so do parts and entire regions of the heavens; I refer not only to the shining and resplendent parts, such as the so-called Milky Way, which in common parlance we call the Way of Santiago, but say it even more insistently about other dark and black parts that are in the

5. Saint Augustine, *De Genesi ad litteram imperfectus liber,* book 2, chapter 10 (O'G).

6. Daniel, 14, 35 (O'G).

7. Psalms, 148, 6 (O'G).

heavens. For really we see in the heavens some areas like spots that are very noticeable, that I never remember having seen in the sky when I was in Europe, yet here in this hemisphere I have seen them very clearly. These spots are like the eclipsed part of the moon in color and form and resemble it in their blackness and gloom. They are very close to the stars themselves and are always of the same appearance and size, as we have observed and seen very clearly. Someone may perchance think them a new thing and will ask from where such spots in the heavens may come. Indeed, for now I can only speculate that, according to what the philosophers say, parts of the heavens, like the galaxy or Milky Way, are denser and more opaque, and hence receive more light, and that on the other hand there are other, very diaphanous or transparent parts with low density and, because they receive less light, seem to be blacker parts. Whether or not this is the cause (and I cannot affirm a certain cause), at least the fact that those spots do exist in the sky, and that they move in unison at the same rate as the stars, is an absolutely certain phenomenon and has been observed many times. It may be inferred from everything we have said that there is no doubt that the heavens enclose all parts of the earth within themselves, always moving around it, and there will be no need to question this again.

CHAPTER 3 * HOW HOLY WRIT GIVES US TO UNDERSTAND THAT THE EARTH IS IN THE MIDST OF THE UNIVERSE

And, although Procopius of Gaza and others of his opinion believe that it is contrary to Holy Writ to place the earth in the middle of the universe and make all the heavens round, in truth this doctrine is not only not false, but agrees very well with what sacred letters teach us. For, apart from the fact that Scripture itself often uses the expression "the roundness (or fullness) of the earth" and in another place tells us that everything corporeal is surrounded by the heavens and as it were included in its roundness,[1] at least the verses in Ecclesiastes cannot be considered as anything but very clear, where he says, "The sun riseth, and goeth down, and returneth to his place: and there rising again, maketh his round by the south, and turneth again to the north: the

1. Esther, 13, 2, and 4; Book of Wisdom, 1, 2, 7, 11, 18; Psalms, 9, 17, 23, 39, 97; Job, 37; Ecclesiastes, 1, 5 and 6 (O'G).

spirit goeth forward, surveying all places round about, and returneth to his circuits."[2] The paraphrase and exegesis of Gregory the Neocaesarian, or Gregorius Nazianzenus, says of this point: "The sun, having run through the whole earth, returns to his same term and place." This, which Solomon says and Gregory repeats, could not be true if some part of the earth were not surrounded by the heavens. And Saint Jerome understands it thus, writing in these words on the Epistle to the Ephesians: "Common opinion affirms, agreeing with Ecclesiastes, that the heavens are round and move circularly like a ball. And it is perfectly clear that no round shape has width or length, or height or depth, because it is everywhere like and equal, etc."[3] Therefore, according to Saint Jerome, what most authorities think about the heavens is that they are round, and this is not only not contrary to Scripture but very much in agreement with it, for Saint Basil and Saint Ambrose, who usually follows the former in his books entitled *Hexameron,* although they appear to be a trifle doubtful on this point, eventually incline to concede the earth's roundness.[4] The truth is that Saint Ambrose is not in agreement about the fifth essence that Aristotle attributes to the heavens.[5] As for the place of the earth and its unshakable nature, it is truly a wonderful thing to see how elegantly and gracefully Holy Writ speaks, to cause us great admiration and no less pleasure in the Creator's ineffable power and wisdom. For there is a place in Scripture where God tells us that it was he who established the pillars that bear up the earth,[6] giving us to understand, as Saint Ambrose clearly declares, that the immense weight of the whole earth is sustained by the hands of the Divine Power;[7] for this is what Scripture calls the pillars of heaven and earth.[8] Surely these pillars are not those of Atlas, which the poets feigned, but others worthy of God's eternal Word, which by its power upholds heaven and earth.[9] But elsewhere that same Divine Scripture,[10] to show us that the earth is joined to and in large part encompassed by the

2. Ecclesiastes, 1, 5 and 6 (O'G).
3. Saint Jerome, *Three Books on the Letter to the Ephesians,* chapter 3 (O'G).
4. Saint Basil, *Homily on Hexameron,* 1 (O'G).
5. Saint Ambrose, *Hexameron,* book 1, chapter 6 (O'G).
6. Psalms, 74, 4 (O'G).
7. Saint Ambrose, *Hexameron,* book 1, chapter 6 (O'G).
8. Job, 9, 6 and 26, 11 (O'G).
9. Saint Paul, Letter to the Hebrews, 1, 3 (O'G).
10. Psalms, 135, 6, 23, 2 (O'G).

element of water, says elegantly that God founded the earth upon the seas and in another place that he established the earth above the waters. And, although Saint Augustine does not wish to have this passage interpreted as an article of faith,[11] that earth and sea form a globe in the midst of the universe, and hence tries to give another explanation of the words of the Psalm, their plain meaning is doubtless what I have stated and that is to give us to understand that we need imagine no other foundations or supports of the earth but water, which, because it is so ductile and changeable, is caused by the wisdom of the Supreme Maker to uphold and enclose this immense machine of the earth. And we say that the earth is established and held above the waters and above the sea, although it is true that the earth is rather more under the water than above it; for in our imagination and thoughts what is on the other side of the earth where we dwell seems to us to be under the earth, and thus we imagine that the sea and the waters that bind the earth on the other side are below and the earth above them. But the truth is that what is actually below is always that which is more nearly in the middle of the universe. But Scripture speaks according to our way of imagining and speaking. Someone will ask, since the earth is above the waters according to Scripture, upon what are the waters and what support do they have? And if earth and sea make a round ball where can this terrible machine be supported? Holy Writ answers this question in another place, causing even greater admiration for the Creator's power.[12] It says, "He stretcheth out the north over the empty space and hangeth the earth upon nothing." It is certainly marvelously expressed, for it really seems that the mass of earth and sea is hung over nothing when it is imagined as being in the midst of the air, and so indeed it is. This marvel, so much admired by men, is emphasized even more by God in speaking to Job: "Who hath laid the measures thereof, if thou knowest? Or who hath stretched the line upon it? Upon what are its bases grounded?"[13] Finally, so that we may fully understand the plan of this wonderful edifice that is the world, the prophet David, a great extoller and singer of the works of God, says this in a psalm that he composed for the purpose: "Who hast founded the earth upon its own bases: it shall not be moved forever and ever."[14] This

11. Saint Augustine, *Enarrationes in Psalmos,* 135 (O'G).
12. Job, 26, 7 (O'G).
13. Job 38, 4, 5 and 6 (O'G).
14. Psalms 103, 5 (O'G).

means that the reason why the earth, being set in the middle of the air, does not fall or falter is because it has sure foundations for its natural stability given it by the infinitely wise Creator so that it is sustained by itself without the need for other supports or buttresses. Therefore, human imagination is deceived if it seeks other foundations for the earth and commits the error of measuring divine works by human standards. Thus, there is nothing to fear, no matter how much it appears that this great machine is hanging in the air or that it may fall or be shaken, for it will not be shaken, as the Psalm says, forever and ever.[15] So David was right when, after having contemplated and sung of the wonderful works of God, he added: "The Lord shall rejoice in his works," and then, "Oh Lord, how great are thy works! Thy thoughts are exceeding deep." Certainly, if I am to give my opinion on this point, I will say that on the occasions when I have passed through those great gulfs of the Ocean Sea and traveled through regions of strange lands and have looked upon and considered the greatness and strangeness of these works of God I could not help feeling great pleasure in the contemplation of the Maker's sovereign wisdom and greatness, which shines through all his works, so much so that in comparison with them all the kings' palaces and all human works seem insignificant and vile. Oh, how often that passage from the psalms came from my thoughts into my mouth: "For thou hast given me, O Lord, a delight in thy doings: and in the works of thy hands I shall rejoice."[16] Indeed, the works of divine art have an indescribable grace and freshness that are as it were hidden and secret, and although they are regarded once and again and many times again they always cause new pleasure. Unlike human works, which even though they are built with great skill after one has grown accustomed to seeing them they appear worthless and almost arouse distaste, be they pleasant gardens, elegant palaces and churches, splendidly constructed fortresses, paintings or sculptures, or gems of exquisite skill and workmanship, although these possess all possible beauty, it is a proved and certain thing that after they are looked at two or three times it is hard to keep one's eye on them, for soon they turn away to look at other things, as if sated by the sight of them. But if one contemplates the sea, or turns one's eyes to a high crag that emerges from it strangely, or the fields when they are clothed

15. Psalms, 103, 31 (O'G).
16. Psalms, 91, 5 (O'G).

in their natural verdure and flowers, or the torrent of a river that flows furiously and ceaselessly strikes against the rocks and seems to roar in combat: in a word, any works of nature whatsoever, no matter how many times viewed, always cause new delight and never tire the eyes, for there seems no doubt that they are like an abundant and magnificent feast offered by Divine Wisdom, which quietly and untiringly soothes and delights our contemplation.

CHAPTER 4 * IN WHICH A RESPONSE IS GIVEN TO WHAT IS ALLEGED IN SCRIPTURE AGAINST THE HEAVENS BEING ROUND

But, to return to the shape of the heavens, I do not know from what scriptural authorities the conclusion has been drawn that they are not round and their movement circular.[1] For when Saint Paul calls the heavens a tabernacle or tent pitched by God and not by man I fail to see that it fits the case,[2] for, although they tell us that it is a tabernacle pitched by God, this does not mean that we must understand that, like an awning, it covers only a part of the earth and that it stays there unmoving, as some have apparently tried to believe. The Apostle was referring to the appearance of the old tabernacle of the law, and for this reason he said that the tabernacle of the new law of grace is heaven, into which the high priest Jesus Christ entered once and for all by his blood. And from there he infers that the new one is equally greater than the old tabernacle since God, the author of the new one, is greater than the maker of the old tabernacle, who was a man, although it is true that the old tabernacle was made by God's wisdom, which he taught to his master craftsman Bezaleel.[3] Nor is there any need to search in similarities or parables or allegories, to make them agree in every respect, as the blessed Chrysostom so wisely tells us in another context.[4] The other authority cited by Saint Au-

1. Acosta's overwhelming concern with sacred knowledge being challenged is paradoxical if we think of what such insistence is hiding: the superb and sophisticated cosmological knowledge of the *amautas* and *tlamatinimes* (men of wisdom) of pre-Hispanic Peru and Mexico, which is denied in the anti-idolatry missionary practices of Acosta and many of his colleagues. On the *amautas,* see Tom Zuidema, *Inca Civilization in Cuzco* (Austin: University of Texas Press, 1986); and on the *tlamatinimes* see Miguel León-Portilla, *La Filosofía Nahuatl* (Mexico City: Universidad Nacional Autónoma de México, 1956).

2. Saint Paul, *Letter to the Hebrews,* 8, 2 and 5 (O'G).

3. Exodus, 36, 1 (O'G).

4. Saint John Chrysostom, *Homily on Saint Matthew,* chapter 20 (O'G).

gustine, which is alleged by some to prove that the heavens are not round, says "Who stretchest out the heaven like a hide," from which it is inferred that the heavens are not round, but flat above.[5] This same holy doctor replies easily and correctly that in these words of the Psalm it is not the shape of the heavens that is to be understood but rather the ease with which God created so large a heaven, for it was no more difficult for God to provide so immense a cover for the heavens than it would be for us to spread a folded hide.[6] Or perhaps his intent was to make us understand God's great majesty, for whom the heavens, beautiful and great as they are, serve him just as in the countryside we are served by an awning or tent made of hides. This a poet splendidly declared, saying, "The tent of the bright heavens." And there is also what Isaiah says, that "Heaven is my throne, and the earth my footstool."[7] If we shared the error of the anthropomorphites, who assigned corporeal members to God in accordance with his divinity, we might succeed in declaring how it was possible for the earth to be God's footstool, being in the middle of the universe. If God fills the whole world, why would he have to have feet in one place or another and many heads all around, which is an absurd and ridiculous notion. We require only to know, therefore, that in Holy Writ we need not follow the letter that killeth but the spirit that quickeneth, as Saint Paul says.[8]

CHAPTER 5 * OF THE SHAPE AND APPEARANCE OF THE HEAVENS IN THE NEW WORLD

Many folk in Europe ask what the appearance and aspect of the heavens on the southern side of the equator can be, since they cannot read anything reliable in the ancients, although they prove reliably that there is a heaven in this part of the world; but they could not discover what shape and size it had,

5. Psalms, 103, 2 (O'G).

6. Saint Augustine, *De Genesi ad litteram imperfectus liber,* book 2, chapter 9 (O'G).

7. Isaiah, 66, 1 (O'G).

8. Saint Paul, 2 Corinthians, 3, 6. Acosta's conclusion in chapter IV, from Saint Paul, that "we need not follow the letter that killeth but the spirit that quickeneth" justifies his metaphorical use of the scripture on the shape of the heavens and prepares readers for his reasoning throughout the *Historia*. In Acosta's quest for the "causes and reasons" of New World discoveries, he must often make leaps of reason that are similar to those required to move from a literal to a metaphorical reading of the Bible. The biggest of these logistical leaps is perhaps in answer to one of the most vexing questions for Acosta, the repopulation of the Indies from Noah's Ark following the Flood, discussed in book I, chapters 16, 18, 19, and 20.