MISSIONARY SCIENTISTS

Jesuit Science in Spanish South America, 1570–1810

Andrés I. Prieto

Vanderbilt University Press

NASHVILLE

CONTENTS

	Acknowledgments	ix
	Introduction: Science and the Jesuit Ways of Proceeding	1
	PART I: MISSIONARY ETHOS	
1	*Jesuit Struggles in Peru*	13
2	*Confessing the Power to Heal*	36
3	*Christianizing Demonic Knowledge*	62
	PART II: A COLLABORATIVE ENTERPRISE	
4	*Science and Expansion*	91
5	*Astronomy between Chiloe, Lima, and Rome*	116
	PART III: NATURA AD MAIOREM DEI GLORIAM	
6	*The Two Faces of Acosta's* Historia natural y moral de las Indias	143
7	*The Irreducible Difference of America*	169
8	*Local Nature, Local Histories*	195
	Epilogue: The Jesuit and the Armchair Philosopher	221
	Notes	229
	Bibliography	259
	Index	275

INTRODUCTION

Science and the Jesuit Ways of Proceeding

In 1663, the Genoese physician Sebastianus Badus set out to defend the curative properties of a Peruvian tree bark from the attacks of other European physicians skeptical of this new medicine. In the resulting treatise, *Anastasis corticis Peruviae, sive Chinae Chinae defensio*, Badus told the story of how in the city of Lima the Countess of Chinchón, wife of the viceroy, fell gravely ill with tertian fever. Undeterred by bloodletting and other customary treatments, the disease threatened the life of *La Chinchona*, as the countess was familiarly called. The viceroy was growing desperate, when an official from Loxa (in present-day Ecuador) suggested the use of a certain bark known to the natives in his district. The success was spectacular. Within a few days, the fully recovered Countess of Chinchón was making sure the miraculous drug was distributed for free among the poor people in Lima. She also took a large quantity with her upon her return to Spain, and the Jesuit cardinal Juan de Lugo subsequently introduced it to Italy. The tree and the drug distilled from its bark would both become known as *cinchona*.[1]

For all its romantic appeal, the story of the countess is, in all likelihood, false.[2] Besides the fact that the countess's cure is accounted for only in Badus's text, contemporary alternate versions of the discovery of the drug can be found in the texts of Gaspar Caldera de Heredia (1663) and Pedro Miguel de Heredia (1673). According to them, the Jesuit missionaries stationed in Loxa noticed that the natives who had to cross a river drank an infusion made from a tree bark to stop the shivering caused by the frigid Andean waters. After seeing that the relief was almost immediate, the Jesuits started to experiment with the bark to alleviate the chills and shivering of those suffering from tertian and quartan fevers.[3] The use of cinchona bark was then quickly disseminated throughout Peru. Already in 1653, the Jesuit chronicler Bernabé Cobo had commented in his *Historia del Nuevo Mundo* that what he simply called the "fever tree" was so "well-known and esteemed, not only in all of the Indies, but also in Europe, that shipments of it are insistently requested from Rome."[4]

These two stories about the discovery and popularization of *cinchona* are

illustrative of the historiographical fate of the contributions made by South American Jesuits to the knowledge of nature. As the work of Badus demonstrates, accounts of Jesuit agency in the European discovery of the drug were displaced by the countess's story very early on. The appellative "Jesuits' bark," which became popular in seventeenth-century Europe, referred not to its discovery by the Jesuits in Loxa but, rather, to the central role of the Roman College apothecaries in its distribution and particularly to Cardinal Lugo's interest in the drug.[5] The missionaries' active efforts to apply the bark to one of the most widespread diseases in early modern times were quickly forgotten.

This trend has been a constant in the historiography of early modern Jesuit science. Despite renewed interest in the scientific activity of the Society of Jesus during the sixteenth and seventeenth centuries, the contributions to the study of nature made by the Jesuits working in the Spanish American missions have received little attention.[6] In this sense, the intellectual activities of the South American Jesuits have had the same historiographical fate as that of early modern Iberian science in general.[7] With a few notable exceptions such as José de Acosta's *Historia natural y moral*, neither the investigative practices nor the natural histories written by the Jesuits who worked in the Spanish dominions in America have entered the current debates on early modern Jesuit science. This omission is all the more strange if one considers that the discovery and colonization of America decisively contributed to the methodological and epistemological changes of sixteenth- and seventeenth-century science by revealing a whole continent hitherto unknown to the Europeans, one populated by a vastly different flora and fauna. This book aims to fill this gap by concentrating on the careers and intellectual practices of the Jesuit naturalists who lived and worked in the seventeenth-century Peruvian viceroyalty. In the chapters that follow, I have tried to contextualize the discussion of their scientific practices against the backdrop of their historical circumstances and the specific challenges they faced. By doing so, I underscore the significance of their scientific endeavors to both the Jesuit order and the intellectual and political life of the Spanish colonies.

Missionary Scientists is predicated upon the premise that the scientific activities of Jesuits in South America were intimately linked to their missionary endeavors. Although they were to devote themselves originally to urban ministries such as pedagogy and preaching to the Spaniards, the Jesuits quickly realized that the colonial setting in which they had to work demanded changing their ways and methods and making the evangelization of native communities their priority. This emphasis on missionary activity became more marked as the Jesuits expanded throughout South America, particularly into areas such as Chile and Paraguay where urban development was not at the level of Peru's. The creation of the Jesuit reductions (Indian resettlements) in Paraguay resulted in closer contact with the nature and cultures of the continent, as did their attempts to pacify the warring Mapuche clans of southern Chile by means of Christian indoctrination. Jesuit authors in South America such as José de Acosta, Bernabé Cobo, Niccolò Mascardi, and Diego de Rosales, among several others, devoted most of their

careers to fulfilling missionary, pastoral, and administrative duties. In part, this situation arose from the Society's permanent lack of manpower for carrying out all of its ministries in South America. The scarce number of Jesuits in the Peruvian viceroyalty prevented those members of the order interested in the study of nature from devoting themselves fully to intellectual activities. But this situation was also a consequence of a genuine conviction among South American Jesuits that the salvation of the natives' souls was their more important and glorious ministry—a ministry that was to take preeminence over teaching and preaching. Unlike Christopher Clavius, Giovanni Battista Riccioli, Athanasius Kircher, and other Jesuit writers who worked in European colleges and saw themselves as mathematicians or natural philosophers, South American Jesuits defined themselves first and foremost as missionaries.

This difference between the professional identities of Jesuit writers in Europe and those working in the Viceroyalty of Peru arose from the two main forces operating within the early Society of Jesus; namely, the missionary and the pedagogical drives. Despite the fact that Ignatius had originally conceived the Society as primarily a missionary and preaching order to help reform the Catholic world, the Jesuits founded their first school in Messina, Italy, a mere decade after they gained official recognition from Pope Paul III in 1540. This fact profoundly altered the Society's approach to their mission. Already in 1560, Juan de Polanco wrote to all the Jesuit superiors to indicate that the schools had become the main ministry of the order.[8] The heavy involvement of the Jesuits in pedagogy forced them to systematize their relationship to culture and learning. Every aspiring Jesuit had to undergo rigorous training in theology and the humanities as well as in philosophy, mathematics, and the physical sciences. The Jesuits developed a conception of learning as deeply related to piety and spiritual life. Ignatius himself had articulated this view by noting that the study of philosophy and the research of the natural world were not only useful for helping students better understand theology; if the study of philosophy and the natural sciences was done piously and "to the greater glory of God," then it could be considered equivalent to prayer and divine contemplation: "Even if they never have occasion to employ the matter studied, their very labor in studying, taken up as it ought to be because of charity and obedience, is itself work highly meritorious in the sight of the Divine and Supreme Majesty."[9]

When the first six Jesuits arrived in Peru in 1568, the primacy of education over missionary ministries was explicitly stated in the instructions given to them by Francis Borgia, then general of the order. Upon their arrival in Lima, the Jesuits bought a plot of land where they immediately started building the College of San Pablo. This college would soon rival the state-sponsored University of San Marcos. Everard Mercurian, Borgia's successor as Jesuit general, expected San Pablo to equal or surpass the quality of the main Jesuit colleges in Europe.[10] However, pressed by Viceroy Francisco de Toledo, the Jesuits soon had to alter their ways and start taking care of *doctrinas de indios*, parochial posts in the newly founded towns into which the viceroy was gathering the native population, which

up to that point had been scattered throughout the numerous valleys traversing the Andes.

The decision to accept the parochial duties of the *doctrinas* was a difficult one for the Peruvian Jesuits. It involved an overhauling of their goals and methods in Peru, something Mercurian opposed. The intervention of a young, brilliant theologian recently arrived from Spain, José de Acosta, was instrumental in this decision. His able manipulation of Mercurian's envoy, Juan de la Plaza, and his measured and compelling address to the First Provincial Congregation of 1576 put the missionary ministry at the center of the South American Jesuits' agenda. His manual *De Procuranda Indorum Salute* (1588) would not only become the most influential treatise on missionary methods written in the sixteenth century, it would also provide a clear path for Jesuit priests—one that would be followed with different degrees of success in places as far apart as Paraguay and southern Chile up to the expulsion of the order in 1767.

This change in goals and methods brought on one of the main differences between South American Jesuits and their confrères in Europe. Whereas in Europe the Jesuit superiors quickly saw the advantages of diverting more resources and manpower to the schools and universities managed by the order, in America the Jesuit focus was on the evangelization of native communities. Although the South American Jesuits never forsook pedagogy, their difference in emphasis favored the emergence of a particular professional identity as missionaries. This fact yielded a different approach to the production and dissemination of knowledge about the physical world. Most of the texts on physics, mathematics, and natural history written by Jesuits in Europe were produced by the faculty members of the most important and prestigious Jesuit colleges and universities in Italy, Germany, and France.[11] Jesuit superiors encouraged the writing of scientific treatises not only in order to produce up-to-date and doctrinally sound textbooks for their students, but also to gain the patronage of Christian nobles and princes and, therefore, to help the reputation of the order among the ruling classes in Europe.[12] In America, in contrast, the emphasis on missionary activity defined different goals for the study of nature. The missionary strategy adopted by the Jesuits implied a prolonged contact between the priests and native communities. Both the practical and theological challenges presented by autochthonous cultures and the need to survive in what was often an aggressive and unfamiliar environment forced the missionaries to describe, explain, and utilize nature and the indigenous lore about it.

The identification of the South American Jesuits primarily with their missionary ministry had a profound influence on their approaches to the study of nature. In this book I trace the development of this missionary ethos among the South American Jesuits in order to understand better how this professional identity defined both the corporate culture of the Society of Jesus in the Peruvian viceroyalty and the intellectual practices of its members. As the following chapters will make clear, the institutional settings of missionary practice and the spe-

cific challenges faced by the missionaries defined not only the Jesuits' research practices and goals in studying the natural world, they also influenced the Jesuits' explicative models, the organization of the information in their texts, and the contents of their natural histories.

The story I tell in this book is that of the emergence of a peculiar Jesuit scientific culture in early modern Spanish South America. The book is divided into three parts. Each chapter presents a specific problematic of colonial science by using a Jesuit figure as a case study. By repeatedly covering a similar chronology in each part, I attempt to build a multilayered narrative of the emergence of institutional and intellectual practices that fostered the study of nature, while highlighting the complexities of doing science in a colonial setting. Jesuit activities in sixteenth- and seventeenth-century Spanish America were not centered upon one particular aspect but, rather, formed a complex array of pastoral, intellectual, and political undertakings. Among these, evangelization and pedagogy were the most salient, and they were often inextricably linked to the interests of Crown and settlers. Each part of *Missionary Scientists* seeks to add another layer to the understanding of how the challenges and benefits of the different cultural, political, and ecological environments faced by the Jesuits in the vast expanses of the Peruvian viceroyalty affected their scientific practice.

Part I, "Missionary Ethos," discusses the development of a missionary professional identity among the South American Jesuits. The showdown between the first Jesuits who arrived in Peru and Viceroy Toledo forced the Jesuits to adopt a new missionary strategy. At first, the Jesuits dismissed Toledo's insistence that they take over *doctrinas de indios* on the basis that such a ministry was contrary to the Jesuit constitutions and the way of proceeding they had laid out. However, what the Jesuits usually referred to as "our way of proceeding" was not a rigid set of rules, but more a series of guidelines allowing for accommodation to specific circumstances. The Jesuits used the expression "our way of proceeding" (*nuestro modo de proceder*) as an umbrella term that denoted all the spiritual, intellectual, and institutional practices they thought gave the Society its peculiar character among other religious orders. John O'Malley has noted that in their effort to pinpoint this "way," the early members of the order multiplied the rules and regulations for different aspects of Jesuit life. These rules were, however, guidelines that allowed for a certain degree of flexibility in their application.[13] I argue that their final acceptance of the *doctrinas* and the success they proved to be in the evangelization of the native populations led the South American Jesuits to redefine what they understood as their own way of proceeding. As I already mentioned, this redefinition involved an overhauling of their goals and methods, and led them to the adoption of a fairly different missionary strategy than they originally intended, but one that was better suited to the colonial situation they encountered in the Peruvian viceroyalty.

The new missionary strategy adopted by the Jesuits in the late 1570s encour-

aged a sustained close contact with native communities. It was while performing their day-to-day chores among different groups of natives that the Jesuits developed their self-sense as missionaries. But it was also in these settings where they started to develop new intellectual tools to foster the evangelization of the members of these communities. Chief among these was the accommodation to native cultures advocated by Acosta in his *De Procuranda*. The preparation of brief and long catechisms in Quechua and Aymara (presumably by the Jesuit Alonso de Barzana, and officially sanctioned by the Third Council of Lima in 1583) and the use of the *doctrina* in Juli as a school for learning the Aymara language and culture tell us a lot about the extent to which the Jesuits were personally and institutionally invested in accommodating themselves to native cultures.[14]

Just like in Juli, in other areas of South America the Jesuits learned native languages and cultures from the Indians, and used this information to advance their own proselytizing efforts. In Chile and Paraguay, the missionaries used native informants to learn about indigenous healing practices, particularly local medicinal plants. This information was in turn re-semanticized by the missionaries in order to offer an alternative to shamanic practices and to control the recourse of the neophytes to native healers and shamans. The intellectual processes by which the Jesuits detached the medicinal use of plants from their native cultural contexts allowed them to expand greatly the number of medicinal plants available to the Spanish population in America. As it will become clear, just as in the *cinchona* case, most of the new plants described by the Jesuits in the Peruvian viceroyalty were studied first for missionary rather than scientific interest.

Part II concerns one of the most salient features of Jesuit scientific practice in South America and in the early modern period in general; namely, its collaborative character. As the Jesuits developed their institutional network of colleges and missions throughout South America, a tension arose between the mobility of members of the order, which the Jesuits still saw as a necessity for accomplishing their mission, and the long periods of residence required for the actual fulfillment of their duties as teachers and missionaries. This tension was resolved, in part, by a constant rotation of individual Jesuits among different posts and offices along their careers. A typical South American Jesuit in the seventeenth century would move among different colleges and missions, keeping a position for up to four years. If he was particularly successful, he would go up the ranks and take charge of administrative duties on top of his pastoral and pedagogical obligations. In extreme cases, such as those of José de Acosta, Luis de Valdivia, and Bernabé Cobo, he could even serve in places as far apart as Arequipa (in southern Peru), Mexico, and even Spain during the course of his career.

This feature of Jesuit careers, along with the institutional encouragement of exchanging information among the different Jesuit provinces (mainly by the constant circulation of letters and annual reports), facilitated the creation of a community of Jesuit naturalists in permanent contact with one another. The dynamic between mobility and sedentariness experienced by the members of the

order during their careers forged strong ties among them, which were maintained over time and space through epistolary exchanges; thus, for instance, after leaving Peru to work in Mexico, Cobo kept in contact with some of his Peruvian confrères, sending them reports of his observations while en route.[15] Mascardi corresponded all his life with his former master Athanasius Kircher. From remote areas of southern Chile and Argentina, Mascardi sent Kircher regular reports of his astronomical observations, while at the same time exchanging data with astronomers in Peru.

The collaborations extended beyond the Society of Jesus, as the case of Mascardi exemplifies. Jesuit naturalists used a wide range of informants, both in scientific and historical matters. These informants were drawn not only from the native communities in which they worked, but also from the soldiers, nobles, and aficionados they met at their different destinations. The accumulation of information regarding the natural world thus amassed was crystallized in the works of a handful of Jesuit writers who took the time to order and systematize the wealth of data obtained by numerous researchers and informants within and outside the Society.

Part III of this book takes issue precisely with the natural histories written by South American Jesuits. Although the description of American nature had enjoyed a long tradition since the publication of Gonzalo Fernández de Oviedo's *Sumario de la natural historia* in 1526, José de Acosta's *De Natura Novi Orbis* (1588) and especially his *Historia natural y moral de las Indias* (1590) inaugurated a series of Jesuit texts dealing with the natural history of the continent that lasted well into the eighteenth century. While the works of Jesuit writers such as Alonso de Ovalle (1646), Bernabé Cobo (1653), Diego de Rosales (ca. 1673), and Juan Ignacio de Molina (1776 and 1782) relied on the natural histories written by their non-Jesuit predecessors and contemporaries, their texts also reveal both the continuities and the transformations experienced by Jesuit approaches to the description and study of South American nature during the two hundred years of Jesuit presence on the continent.

Acosta was eager to note that his work did not merely describe the exotic nature of America. Instead, he attempted to explain philosophically the purported differences between the Old and New World. Despite his claims, however, Acosta gave way to mere description in the second third of his *Historia natural y moral*, explicitly renouncing philosophical investigation and even condemning such attempts as *vana curiositas*, or intellectual pride.[16] It is my contention that in this tension between the explicative and the descriptive, we can find evidence for a consistency between sixteenth-century Jesuit natural philosophy and the spiritual and pastoral goals of the Society of Jesus in South America.

The influence of Acosta's *Historia natural y moral de las Indias* was felt on both sides of the Atlantic. This does not mean that his work was universally acclaimed; dissatisfaction with Acosta's theories and methods, at least in part, motivated subsequent natural historians. Almost half a century later, Bernabé Cobo

carefully considered Acosta's theories and line of reasoning, only to find them wanting. His systematic rebuttal of the former Jesuit provincial's theories clearly reflects the competitive character of Cobo's *Historia del Nuevo Mundo* in relationship to Acosta's more famous book. While for Acosta the study of nature could and should yield a positive theology, making God's salvific plan for humankind explicit, for Cobo the marvels and wonders of nature were evidence of God's omnipotence as expressed in the astonishing variety of species, objects, and environments found in America. The specificity of American plants and animals when compared to those species found in the Old World presented Cobo with a taxonomical problem. Cobo's outlook on the natural world, best exemplified in his explanation of the animal population of the continent, involved a fundamental link between species and their habitats. However, a century and a half of Spanish rule over America had made it difficult to establish the provenance of numerous species. Cobo's attempt to distinguish between native and introduced plants and animals was an effort to work out the relationship between species and environment in a taxonomic system. His method (asking the oldest Indians he could find) presented a problem Acosta did not recognize: it was impossible to rely on the existence of a native word for a particular species or class to determine if it was autochthonous or not. Just like the natural world, the native languages were in this respect also a product of Spanish colonization; they expressed a knowledge that reflected not the traditional Andean natural space but, rather, the colonial landscape with its newly introduced plants and crops. It is ultimately in this colonial aspect of American nature that the differences between Acosta's and Cobo's treatments of nature can be explained. Cobo's emphasis on God's power and his recourse to miracles and occult properties as the only way to explain the peculiarities of America shifted the focus from the evangelization of the Amerindians that was at the center of Acosta's intellectual project to an emphasis on the irreducible difference of America. Cobo's lengthy explanations of the changes to the American landscape and the biological diversity brought about by European agriculture, which form the background for his description of America, emphasize human agency and dominion over nature rather than God's unfolding plan for humankind and the salvation of native souls.

The tendency to concentrate on local nature was accentuated as the seventeenth century came to an end. Due partly to the fact that more and more Jesuits were recruited from the ranks of the *criollos* (American-born persons of Spanish ancestry), resulting in a more patriotic bent in the histories produced by them, the growing number of local natural and general histories was also a function of the institutional developments of the Society of Jesus in South America during the seventeenth century. In Chapter 8, I examine the production of two members of the order, Alonso de Ovalle and Diego de Rosales. Unlike Acosta's book, Ovalle's *Histórica relación del reyno de Chile* (1646) and Rosales's *Historia general del reyno de Chile* (ca. 1673) were, like Cobo's, full-fledged histories of the Spanish conquest that included long sections on natural history. Unlike Cobo, however,

they did not aim to describe the nature and history of the whole continent; instead, they focused exclusively on Chile. In this sense, they are examples of what modern scholars have described as the emergence during the seventeenth century of a proto-national identity or Creole consciousness in Spanish America. Their description of Chilean nature can be read as a "rhetoric of praise" in which the comparisons between local nature and the Old World were not intended to highlight the fundamental unity of the world, as Acosta had done, or the difference between Europe and America. Instead, we find in both Ovalle and Rosales a narrative construction of the inherent superiority of the Chilean climate, flora, and fauna, vis-à-vis Europe and other regions of the New World. Using different methodologies, both writers focused on the local, forgoing the wider scope that was so important for Cobo and Acosta.

Ovalle published his *Histórica relación* in Rome, where he was attending the Eighth Jesuit General Congregation. The book was ostensibly written to promote the achievements of the first fifty years of the Jesuits in Chile, particularly their prominent political and evangelical presence in the land. Ovalle's treatment of nature was instrumental to his exposition of the success of the order in Chile. Distancing himself from the search for the causes of natural phenomena that had characterized Acosta and Cobo, Ovalle focused on descriptions of the marvelous and the unusual. He recorded, for instance, the finding of a tree that resembled Christ on the cross, and the appearance of monsters following a volcanic eruption in the Mapuche lands. Ovalle understood these marvels as manifestations of the Divine Will to pacify and convert the rebel Mapuche people; in fact, he claimed that they were hieroglyphs in which God's plans could and should be read—particularly, his approval of Jesuit political activities. Unlike Acosta, for whom philosophical speculation led to theological truths, Ovalle (in line with contemporary developments of Jesuit science in the Baroque era) attempted to read God's will not in the regularity of nature but, rather, in its wonders and marvels, which for him constituted the hieroglyphs with which God had written the Book of Nature.

Rosales's *Historia general del reyno de Chile*, although it did discuss some natural wonders (such as a fish that showed the cross and the crown of thorns on its skull), placed much more emphasis on the bounty of Chilean nature than on its marvels. Reacting against Juan de la Puente who in 1612 had stated that the nature of America was prone to produce effeminate men, be they natives or Spanish, Rosales focused his attention on the extreme fertility of the land, the massive height of the Andes, its mineral riches, and the evident favor granted to Chile by God. Drawing upon information accumulated through almost a century of Jesuit missionary practice in the country, Rosales provided detailed descriptions of the fauna and, especially, the medicinal plants of the realm, emphasizing their endemic character. This information was carefully compared to that presented by a dazzling array of European authors in order to highlight Chile's uniquely rich and benefic nature. Anticipating the Jesuit polemics with Cornelius de Paw by

almost a century, Rosales offered a passionate and thoroughly researched defense of Chilean nature and its inhabitants.

Although the study of nature was not formally a part of the goals or the ministries of the Society of Jesus in South America, the dedication of some of its members to the exploration and research of American nature was a constant during the two hundred years the order was present on the continent. Because of the peculiar relationship the order developed with culture and knowledge, as well as the usefulness that a deeper knowledge of nature had for the missionary enterprise, the superiors of the order in South America encouraged and stimulated these studies; however, despite this constant effort, neither their intellectual practices nor the contributions of South American Jesuit naturalists have gained them more than a marginal position at best in the current debates about early modern science. As I hope the following pages will clarify, both the importance of these contributions and the specific circumstances in which they carried out their studies deserve better attention if we are to understand the role played by the Society of Jesus in the development of scientific thought in the seventeenth century.

CHAPTER 1

Jesuit Struggles in Peru

On March 1, 1572, Francisco de Toledo sat down to write a long letter to King Philip II, reporting on the state of affairs in the Viceroyalty of Peru. Front and center in Toledo's report were his concerns about the spiritual situation in the realm, in particular the conversion of the Andean natives. After describing the overall ecclesiastical situation and his own efforts toward the evangelization of the native communities by relocating them into fewer towns to be put under one *doctrinero* (priest), Toledo complained to the king about what he saw as the contemptuous attitude of the religious orders, in particular the Jesuits: "The members of the Society of the Name of Jesus work in this kingdom with the fervor I have described to Your Majesty, and although I truly understand that they are useful in the cities among the Spaniards and the service Indians, they do not know if by their statutes they are allowed to go out to the *doctrinas* and work in the conversion of the Indians where they are most urgently needed."[1] During the previous four years, the Jesuits had in fact resisted almost every effort made by Toledo to coax them into accepting the newly created parochial posts among the Peruvian natives, claiming that such a practice was contrary both to their pastoral methods and to their internal legislation. Despite the diplomatic tone of Toledo's letter, the Jesuit refusal to take over the *doctrinas* quickly became a major source of tension between the order and the viceroy, who repeatedly made clear his disgust with what he took to be an open challenge to his authority and a blatant disregard on the part of the Jesuits toward what he saw as one of the most important responsibilities of the Crown in America. The escalation of this conflict between the Jesuits and Toledo during the first decade of Jesuit presence in Peru would force the newly arrived order into a process of soul-searching, the outcome of which led the Jesuits to refocus their goals and redefine their methods, thus changing the perception the Jesuits had of themselves and of their mission in Peru in the process. From the late 1570s onward, the Jesuits would gradually move away from seeing themselves as a primarily urban-based religious order (as Toledo complained they were) and start

to define themselves first and foremost as missionaries devoted to the salvation of native peoples. As we shall see throughout this book, this change in Jesuit self-perception had a profound impact not only in the subsequent expansion of the order on the continent, it also affected the content, methods, and objectives of Jesuit intellectual endeavors.

The conflict between the viceroy and the Jesuits arose from the different goals the Crown and the Jesuit hierarchy had in mind for the presence of the order in Peru. Unlike the monastic orders, the Jesuit ministries in Europe were characterized by active engagement with the secular life of the cities where they were established.[2] The order wanted to replicate this model in Peru. When the first group of six Jesuits arrived in Lima in 1568, their leader, Jerónimo Ruiz del Portillo, carried very specific instructions from General Borgia. They were to found a college in Lima and devote themselves to urban ministries such as preaching, confessing, and tending to the poor, leaving the city only to engage on itinerant missions among the population living in the countryside. In any case, Borgia insisted to Ruiz del Portillo, they would have to reside in the same city as the viceroy and always return to it. Their outings were to be only temporary and never last more than a few months; the less time they spent outside the cities, the better.[3] Following these directives as soon as they had established themselves in Lima, the Jesuits began preaching several times a week and they started ministering to the poor and the outcast, particularly the African slaves and the native communities living in the city. Following a general tendency of the Society of Jesus at the time, the Jesuits considered teaching at the College of Lima as their primary task.[4] Ruiz del Portillo, in fact, spent more money buying books for the planned college than on religious articles and sacred vestments, and the first official activity the Jesuits conducted upon their arrival in Lima was a visit to Governor Lope García de Castro to arrange the acquisition of a suitable lot in the city on which to build the College of San Pablo.[5] They soon opened their college, and alongside the regular courses on humanities and philosophy, they convoked the city's neighbors for an informal roundtable on practical moral problems once a week.[6]

A few months after the arrival of the first Jesuits, Francisco de Toledo had entered Lima to take possession of the office of viceroy. The younger brother of the Count of Oropesa, the fifty-three-year-old Toledo had had an unremarkable career as a government official up to that point; however, his stern personality, frugal habits, and above all his unquestionable loyalty and dedication to the Crown's service made him the ideal candidate for the task of putting Peru under the firm rule of the Spanish monarchy once and for all. Ravaged by decades of civil wars and weak government officials, and under the constant threat of native rebellion posed by the survival of the neo-Inca state of Vilcabamba, Peru was far from being the source of revenue so sorely needed by the Crown, in spite of its fabulous mining riches.[7] In order to remedy this situation, Toledo sailed to Peru in 1568 with a set of instructions issued by the *Junta Magna* (a group of notables and advisors assembled by King Philip II) that suggested a course of action for solving the most pressing problems of the colony and reorganizing its administra-

tive and productive apparatuses. Toledo was ordered to lead a general inspection of all Peruvian provinces, closely examine the situation on the field, and conduct measures toward the enforcement of the laws his predecessors had not implemented for fear of further social unrest.[8]

Toledo's general visitation lasted five years, from 1570 to 1575, during which the viceroy and his entourage conducted a thorough inspection of the cities and rural areas that surrounded them in the central Andes, southern Peru, and today's Bolivia. Toledo's visitation fundamentally altered the social structure of native Andean communities, which had already been shattered by the conquest, the *encomienda* system, and the long civil wars between the Spanish settlers. Chief among Toledo's concerns were the reassessment of tributes collected from the natives, the organization of native labor in order to bring the Peruvian mining industry to full production, and the fulfillment of the royal obligation to evangelize the Amerindians. In order to achieve these goals, the viceroy arranged for the relocation of the scattered native communities into Spanish-style towns and villages in more accessible areas, a process known as *reducción*. As Toledo saw it, the reduction was "the most important thing done during this visitation, both temporally and spiritually."[9] It was an enormous undertaking, involving a census and the relocation of well over a million individuals.[10] Toledo's reduction program seems to have been based on the proposal Juan de Matienzo, a Spanish magistrate from the *Audiencia* (appellate court) of Charcas, had sent to the Council of Castile in 1567.[11] Although Matienzo's main concern had been to stop natives from wandering from city to city and to turn them into a stable labor force, he claimed that the main goal of the reductions was to discharge the royal conscience, since the natives "cannot be evangelized nor become fully human if they are not living together in towns."[12] Following Matienzo's proposal, Toledo arranged for the relocation of native communities into towns organized around central squares. Each town's new inhabitants were recounted after their relocation, and careful records were made, noting the age, sex, and marital and social status of each of them. This information was then used to calculate the tributes owed by each town, as well as to organize the *mita*, which were forced labor shifts designed to ensure a constant number of workers for the Potosi silver mines.[13]

The creation of these towns was also seen by Toledo as an opportunity to strengthen the *patronato real*, the Crown's authority over the ecclesiastical affairs of the viceroyalty.[14] As he traveled through the country, Toledo realized the huge difficulties faced by the *doctrineros*, or parochial priests: "There were *doctrinas* in which only one priest was in charge [of] one thousand or more Indians living scattered across sixty leagues of land, in mountains and deserts. This [problem] has been remedied by reducing the Indians to large towns, and giving each priest only one town [as his parish]."[15] The reductions were simultaneously administrative and religious institutions, and as the king's representative, Toledo reserved the right to appoint the *doctrineros* himself.[16] Up to then, the priests had been either designated by the bishops or hired by the *encomenderos* (beneficiaries of a

grant of native labor tribute), a practice that according to Toledo had led to several abuses. Besides their religious duties, the priests held de facto police power, and had usually resorted to physical punishment of the natives under their care. Furthermore, the illegal collection of tribute by the *doctrineros*, either as labor or as local produce, had become a widespread practice.[17] Adding insult to injury, several *doctrineros* also kept native concubines, as the native chronicler Felipe Guaman Poma bitterly complained about early on in the seventeenth century.[18] Toledo sought to remedy these abuses and to apply the *patronato real* effectively by appointing friars and members of the religious orders as *doctrineros*: "It is convenient to use them in the evangelization of these Indians outside of the main Spanish cities because without a doubt [the friars] are more spiritual than the secular priests, and they are more diligent in teaching and indoctrinating these barbarians."[19] The bishops' complaints notwithstanding, Toledo insisted that the religious orders should furnish the missionaries needed to conduct religious instruction in the new Indian towns.[20]

Toledo's insistence on this point put a lot of pressure on the Society of Jesus to change its pastoral ways, based as they were on urban ministries. Finally, in 1570, Ruiz del Portillo gave in and provisionally accepted the *doctrinas* of Cercado on the outskirts of Lima and Huarochiri, located east of the city; however, Ruiz del Portillo was not happy with this situation, and wrote a letter to Rome to inform General Borgia of this issue and others the Jesuits regarded as instances of the viceroy's excessive meddling in the order's affairs. Borgia's answer clearly shows how the Jesuits were afraid that Toledo intended to use them for a wide variety of tasks, thus limiting the freedom the Jesuits felt was necessary to carry on with their own pastoral agenda.[21] Borgia ordered the Peruvian Jesuits to adhere strictly to the order's constitutions, and instructed them to minimize their involvement in tasks alien to their mission. He rejected the new colleges Toledo was pressing the Jesuits to found, since he wanted to ensure the economical viability of the two colleges the Jesuits already operated in Cuzco and Lima. In regard to Toledo's insistence on occupying some Jesuits in the general inspection of the viceroyalty, Borgia was explicit: the Jesuits could accompany him, but they should devote themselves only to pastoral duties, and under no circumstances should they be involved in the political decisions that would lead to reform of the viceroyalty.[22]

But the most controversial issue was, by far, the acceptance of the *doctrinas*. In his reply to Ruiz del Portillo, Borgia noted that for the time being, the two *doctrinas* already under Jesuit tutelage should be kept, but he forbade Ruiz del Portillo from accepting new ones. The main reason to reject the *doctrinas* was the explicit prohibition in the order's constitutions of undertaking the curacy of souls.[23] This provision, explained Borgia, had been adopted in order to avoid the subjection of individual members of the Society to the bishops or to state officials, allowing the Jesuit superiors the freedom they needed to appoint the members of the order to different offices as they saw fit.[24] The level of commitment

demanded by parochial posts, both at the administrative and personal level, was contrary to the Jesuit way of proceeding.

For the Jesuits, the superiors' ability to move the individual members of the order around freely was a fundamental aspect of their operational capability; on the other hand, for Toledo, taking care of the *doctrinas* was indispensable. The ambitious project of reduction required the presence of priests residing among the natives to ensure their effective evangelization, and there were simply too few secular priests in the land to cover all the newly created parishes. The Jesuit refusal to accept parochial duties, a fact aggravated by their abandonment of Huarochiri in 1572, was seen by Toledo as a clear violation of the Crown's authority in ecclesiastical matters. Toledo believed that the only reason Philip II had authorized the Jesuits' move to Peru was for them to go to the *doctrinas* and evangelize the native population. Any other ministry performed by the Jesuits, whether it be teaching, preaching, or evangelizing the African and native populations living in the Spanish cities, was for Toledo just a complement to what he considered their main duty. If for whatever reason the Jesuits—or any other religious order for that matter—could not take on parochial posts, their presence in Peru was not needed.[25]

The escalation of the conflict between Toledo and the Peruvian Jesuits motivated Borgia's successor, Everard Mercurian, to send Juan de la Plaza to Peru in 1573 as a special *visitador* (envoy) endowed with ample powers. Although publicly Plaza was sent to find a feasible solution to the *doctrinas* problem that would content the viceroy and be, at the same time, in accordance with Jesuit legislation, in practice his mission was to discourage Jesuit involvement in the curacy of souls as much as possible. Displaying the kind of political savvy that would fuel the negative stereotype of the Jesuits as cunning and treacherous, Mercurian gave Plaza three different sets of instructions. The first two were meant to be shown to Spanish officials and suggested proper answers for hypothetical questionings, where Plaza would promise that the Jesuits would take care of the *doctrinas* if certain conditions were met.[26] However, the third set of instructions (labeled *Instructio accuratior* and meant for Plaza's eyes only) left little room for doubt regarding Plaza's mission: "It is inconvenient for the Society to take charge of *repartimientos* or *doctrinas de indios* as it has been done by other orders, living among [the natives] as parish priests or vicars, and with a certain salary or wage."[27] Plaza's mission was to stop involvement in the *doctrinas* at all costs.

Despite all this secrecy, Plaza failed even before he could set sail. Unable to find a fleet to take him to Lima, he had to wait in Seville for almost a year. During that time, Plaza started to grow more and more uncomfortable with his mission, doubting the legitimacy of Spanish rule over America and therefore the legitimacy of the Jesuit presence in Peru.[28] Mercurian, realizing how dangerous these doubts were, suggested that Plaza discuss these and any other matters regarding his mission with a brilliant young theologian, José de Acosta, who was already in Peru. In practice, Mercurian limited the powers given to Plaza by effec-

tively putting him under the tutelage of Acosta, both regarding the administrative issues of the Peruvian Jesuits and his own problems of conscience.[29] Mercurian's decision to name Acosta as Plaza's counselor would, in time, prove to be a turning point for the Jesuits in Peru.

SEARCHING FOR SOLUTIONS

The young Jesuit whom Plaza was about to meet with was one of the most promising members of the order. José de Acosta was born in 1540 in Medina del Campo, a prosperous mercantile city in Castile.[30] The Acosta family had a deep involvement with the Society of Jesus. The father, Antonio, was a wealthy merchant who enthusiastically supported the order. In 1551, he gave the Jesuits land where they could build a college and a church, along with two thousand ducats to help defray the costs. The closeness of the Acosta family to the Jesuits was reinforced when four of Antonio Acosta's six sons joined the order. Inspired by the example of his brothers, young José ran away from home in 1552 to enter the order in Salamanca. His father initially protested this, mainly because of his young age, but did not raise any more objections once José was accepted into the Society. The family was pleased to see José return to Medina del Campo to finish his novitiate in the college his father had helped to build.

Acosta soon stood out as a brilliant student, and he was charged with the composition of several comedies and religious plays to be presented in the college to celebrate the main Catholic holy days. Upon graduating from Medina del Campo in 1557, Acosta was assigned to several Jesuit colleges in Spain and Portugal where he taught Latin. In 1559, the Jesuit superiors ordered him to enroll in the university at Alcala de Henares to continue his education. His intelligence and oratory skills gained him the respect of his classmates and the praise of his professors, particularly during the *Actos Generales Mayores* of 1563, in which Acosta publicly defended several philosophical theses with resounding success.[31] Acosta's talents did not go unnoticed by the Jesuit superiors. Contemporary reports about him all concur that Acosta was a brilliant student of "human letters, philosophy, and theology," and that he would "be able to lecture in [these subjects] with total satisfaction; he is also well suited for preaching and for administrative duties."[32] These reports show the remarkable accuracy with which the Jesuit superiors evaluated their charges. In time, Acosta would excel as a writer, philosopher, and theologian. His tenure as superior of the Jesuit Peruvian province would also prove to be a momentous period for the Society of Jesus: a period that would define the subsequent activities of the order in South America.

In 1566, at age twenty-six, Acosta was ordained as a priest. His meteoric career continued with appointments as a professor of theology at the Jesuit college at Ocaña and later in Plasencia. Although Acosta had requested to be sent to the overseas missions as early as 1561, Francis Borgia considered him better suited to become a faculty member of the most prestigious Jesuit institution of higher

learning, the Roman College than a missionary. Acosta repeated his requests to be sent to the New World in 1568 and again in 1569. After several vacillations, Borgia obliged, selecting him to reinforce the nascent Peruvian province in 1571, along with two other Jesuits. His intellectual activity during the seventeen years of his stay in the New World would mark a watershed in the history of Jesuit missionary and scientific enterprises in South America.

When Plaza met with Acosta in the cloisters of San Pablo in May 1575, the young Jesuit profoundly impressed him. Acosta helped him solve his most pressing doubts, reassuring him of the usefulness and importance of the Jesuit presence in Peru to help save the souls of the wretched Andean natives. Barely three months after their first meeting, Plaza appointed Acosta rector of San Pablo, only to promote him to the office of provincial on January 1576. Acosta promptly used the privileged position granted to him by the *visitador* to advance the missionary agenda of the Peruvian Jesuits in spite of the orders from Rome.[33] His mission notwithstanding, Plaza played but a secondary role in the Jesuit decision to officially accept more *doctrinas*.

Acosta's first measure in office was to call the First Provincial Congregation to meet in Lima during January 1576 and in Cuzco during October 1576. Prominent on the table was the problem of the *doctrinas* and the effectiveness of the missionary methods employed so far by the Jesuits. Acosta had had an opportunity to form a firsthand opinion on the missionary problems in Peru in 1573, when Ruiz del Portillo sent him on a long journey through central and southern Peru to inspect the various colleges and houses the Jesuits were establishing there. During this trip, which included the cities of Cuzco, Arequipa, La Paz, Potosi, and Chuquisaca, Acosta had had time to get acquainted with the deplorable situation of the Andean natives under Spanish rule, and also with the difficulties both the rugged terrain and the dispersion of the native communities presented to the itinerant missions favored by the Jesuits. In 1574, Toledo (who was by then conducting his administrative visitation) had called Acosta to Chuquisaca to consult with him on these matters. While there, Acosta had had the opportunity to meet with two of the realm's foremost experts on Andean affairs, Juan de Matienzo and Polo de Ondegardo, both of them acting as the viceroy's counselors. Their views, although not always coincident, would shape not only the Toledan enterprise but also Acosta's own perceptions about the utility of the reduction process and his understanding of Andean culture.[34]

Based on these experiences, Acosta proposed to the Jesuit assembly four ways to increase their presence among the native communities. The first and most important was to take on parochial duties, accepting the *doctrinas*. The second was to increase the itinerant missions to the countryside, going deeper and for longer periods of time into the lands inhabited by the Andean communities. The third possibility was to establish Jesuit residences in the provinces populated mainly by the natives in order to evangelize them without taking on the curacy of souls. The fourth way to increase the Jesuit influence among the Peruvian natives was to "establish colleges and seminars where piously and reasonably the sons of the ca-

ciques—that is, the Indian nobles—could be educated."[35] Acosta's proposal was an attempt to reconcile the Jesuit operational methods sanctioned in the *Constitutions* with the demands of Toledo. Regarding the *doctrinas*, Acosta emphasized the fact that the Jesuits were the only religious order in Peru unwilling to accept them.[36] His intervention was cautiously tailored to favor the viceroy's ideas regarding the government and evangelization of the Peruvian natives.

The debate focused on Acosta's first proposal. The Peruvian Jesuits saw several problems that could arise from their involvement in the *doctrinas*. Almost all of these problems derived from the fact the missionaries would be isolated from their communities and, therefore, from the supervision of their superiors. This situation could lead—as it had already among secular priests and some friars—to the moral dissolution of the members of the order, and to the temptation to exploit the Indians economically for personal material gain. Furthermore, the Jesuits were greatly concerned about the legal implications of their acceptance of the *doctrinas*, particularly in regard to their subjection to the bishops and the viceroy, about which General Borgia had already warned them.[37] The assembly, however, agreed that all these difficulties could be overcome, particularly within the frame of the Toledan reduction already under way, and brainstormed for feasible solutions.

But the biggest problem of all was still the internal legislation of the order. The Jesuits felt that the acceptance of the *doctrinas* was an essential step toward achieving the true evangelization of the Peruvian natives. Based on the precedents set by the Jesuit missions in India and Japan (where members of the order were engaged in parochial duties), they thought if the potential problems foreseen by the Jesuit superiors could be avoided, the general should grant them a dispensation to undertake the curacy of souls.[38] While they waited for General Mercurian's answer, the Jesuits decided to accept the *doctrina* of Juli, on the shores of Lake Titicaca, for a probationary period of three years in order to see if the difficulties they anticipated could be avoided.[39] In November 1576, six Jesuits—two lay brothers and four priests—entered the *doctrina*. The experience proved to be a fruitful one for the order; two years later, there were eight Jesuits working there. In time, the *doctrina* of Juli would become the training center for the Jesuits assigned to work in Peru, and the standard on which the missionary strategy of the Jesuits in South America would be modeled.[40]

THE CONTROVERSY OVER NATIVE EVANGELIZATION

The assembly's rationale for accepting the *doctrinas* was thoroughly spelled out in Acosta's first book, *De Procuranda Indorum Salute*, which he finished a year after the closing session of the Jesuit congregation.[41] The book, intended as a guide to missionary work in Peru, was based on the experience already gained by the Jesuits in the *doctrinas* of Cercado and Huarochiri. The main lines of action and

the general orientations it proposed would be the ones followed by the Jesuits in Juli, and in their reductions and missions elsewhere in South America later on.

In *De Procuranda*, Acosta attempted to lay down a general missionary method suited to the colonial situation of the Peruvian natives. Hence, the book dealt not only with the technicalities of teaching Christianity, but also with the anthropological, political, and social considerations that were the foundation of Acosta's missionary model. This model was based on a critical outlook of the current Peruvian situation, which Acosta had had ample opportunity to assess during his 1573 *visita*. In fact, in *De Procuranda*, Acosta discussed at length some of the administrative reforms undertaken by Toledo and listed the moral, political, and religious obligations that should be fulfilled by colonial officers and priests alike in order to facilitate the evangelization process. In Acosta's view, the conversion of the Peruvian natives was truly a colonial enterprise—one that required the concerted efforts of all members of society and the institutional support of both church and state to ensure its success.[42]

Overall, the book reflected Acosta's deep-seated conviction in the ability of the Andean natives to truly understand and embrace Christianity and to achieve salvation. At the time, many priests and secular officers were voicing their concerns about what they perceived as the natives' lack of the intellectual capabilities needed to grasp the basics of Christian doctrine.[43] This harsh judgment, usually expressed by priests who did not speak the native languages, was based on what appeared to be a stubborn cultural resistance on the part of the natives. At least since the 1550s, the missionaries working among the Andean peoples had complained that although the natives seemed to readily accept the Christian faith, they nonetheless secretly maintained their ancestral beliefs and practices.[44] Although outrageous to the Spaniards, this custom probably seemed only natural to the Andean peoples. The Incas had enforced the official imperial cult among their newly conquered subjects by sending Inca state settlers to teach the official language and religious beliefs, as well as by sequestering the local idols as a way to ensure allegiance. But the Incas had also allowed the continued worship of the *huacas*—local deities who inhabited places of adoration such as springs, rocks, mountaintops, and rivers—as long as the tributes due to the state cult were paid.[45] The arrival of the Spaniards meant the substitution of one type of colonial rule for another for most Andean peoples. Under these circumstances, they embraced the new official religion while at the same time maintaining their old tribal cults, just as they had in Inca times.[46]

To be sure, there were some fundamental differences between Inca and Spanish rule, most noticeably in the brutal exploitation of the native communities by their new masters, but also in the claims of exclusivity by the new imperial religion. Furthermore, the survival of an independent Inca state in the remote mountain area of Vilcabamba, ruled by the descendants of the Cuzco royal family, kept hopes alive among the native population for a general insurrection that would get rid of the dreaded invaders and their religion. Probably encouraged by the

Inca Titu Cusi Yupanqui, third ruler of Vilcabamba, in the late 1560s a messianic movement started to spread among the Andean communities. The movement was known as *Taqui Onkoy* or dance sickness since it was preached by itinerant dancers who entered an ecstatic state. The movement asserted the belief that the ease with which the Spaniards had conquered the mighty Inca Empire was due to the superior strength of the Christian god. The *Taqui Onkoy* prophets proclaimed the return of the main *huacas*, who would wage war against the Christian god and expel him from the land. Apparently, this godly war was to be accompanied by a native rebellion that would drive the Spaniards out of the land this time. In 1565, the discovery of clandestine weapon factories in the city of Jauja frightened the Spanish authorities.[47] A campaign to extirpate the idolatries ensued, and it was followed in 1571 by the invasion and destruction of the Inca stronghold of Vilcabamba and the subsequent execution of the last Inca emperor, Topa Amaru. As a result, missionaries and government officials realized that, although voluntary, the natives' conversion to Christianity could not be trusted to be wholehearted, much less long-lasting. As Ondegardo attested in 1571, "Even those who are regularly preached to and well taught [in Christian doctrine] defend themselves from the accusation of performing their rites and keeping their idols after being baptized by saying that they understood these practices to be compatible with [Christian] teachings."[48] The local cults, tied as they were to the communities' myths of origin and therefore to their sense of identity, proved to be extremely difficult to eradicate.[49]

The obstinate survival of ancient religious beliefs despite decades of Christian indoctrination led several priests and secular officials to believe that the Indians were congenitally incapable of comprehending Catholic dogma. Some, such as the Dominican friar Francisco de la Cruz, went as far as to maintain that mere belief in God was enough for the Indians to be saved, an opinion that appears to have been widespread.[50] In 1583, the bishops and theologians of the Third Council of Lima, among whom was José de Acosta, felt the need to specify what constituted the bare minimum parish priests had to teach their charges. According to the council, before being baptized, every native should know by heart the Creed, the Paternoster, the Ten Commandments, and all the sacraments. Besides that, they should demonstrate sincere belief in a single God that rewarded the faithful in heaven and punished the wicked in hell, know the mystery of the Trinity, reject their idols as false and devilish, believe in the dogma of the Immaculate Conception of Mary, and understand that Jesus died on the cross and was resurrected after three days.[51] The fact that the bishops saw fit to legislate this matter in detail suggests that views similar to those maintained by de la Cruz regarding Amerindian indoctrination were not uncommon among parish priests.

Faced with these concerns, Acosta (who had been one of the judges in the inquisitorial process against de la Cruz) resolutely affirmed the capacity of the Andean peoples to understand and embrace the Christian message. Acosta identified four main arguments used by those who denied the Indians' ability to con-

vert to Christianity: the Indians were deprived of divine grace; their nature and customs were too depraved and primitive for them to understand and accept Christian morality; most of them seemed unable to understand Spanish; and their dwellings were too inaccessible for preachers to reach.[52] The last two objections were easy to dismiss: it would suffice for the missionaries to learn the native tongues, and the Toledan reduction would solve the problem of their dispersion (*De Procuranda* [1596], 155–57). But the supposedly depraved nature of the natives and, above all, their purported lack of grace presented a more serious challenge since they seemed to imply that the natives could be a different kind of humanity, one not included in God's plan for human redemption. The long time God had let pass between the death of Christ and the arrival of the first preachers in America seemed to some to lend plausibility to this view (116–17). Acosta spent most of the first part of *De Procuranda* arguing that the divine salvific plan did include the Amerindians, as well as all other races, multiplying to that end his quotations and glosses of scripture and the fathers of the church. "There is not a race of men," argued Acosta, "no matter how abject or bestial, alien to the medicine of the Gospels, for God does not call anyone whom he has not given the intelligence and grace needed to obtain that for which he calls him" (139).

For Acosta, what seemed to be a lack of intellectual capabilities in the Peruvian peoples was not due to natural causes, such as place of birth or the influence of the Andean air, or to some racial deficiency; instead, it was the result of the prevalence "of their ancient customs, and their way of life, not unlike that of the beasts. . . . It is a commonly known fact that upbringing has a bigger influence on a man's character than birth" (149–50). In fact, the Andean peoples were not at all incapable of learning, as was clear from their mastery of European music and manual crafts, as well as their skill in legal issues. The problem was, instead, the lack of religious instruction in the native languages and the general ignorance of all things sacred among the parish priests. "For a bad teacher," Acosta stated rather harshly, "all disciples are stupid" (360). Effective evangelization was certainly more than just making the natives memorize the catechism and a few prayers in Spanish. It required a sustained effort on the part of the missionaries. Acosta argued that since the natives' poor grasp of the Christian doctrine was due to their upbringing in their traditional culture, their acculturation must be emphasized in order to give them the intellectual tools and moral codes needed to understand Christianity. The missionaries would have to educate the Peruvian natives in the European political and moral ways of living before starting the evangelization program proper: "First we must make sure that the barbarians learn to be humans, and then teach them how to be Christians" (324). For Acosta, learning the ways of what he saw as the superior European culture would render the truth of the Christian message self-evident to the Andean peoples.

The evangelization of the Andean peoples as Acosta envisaged it demanded a slow and constant effort on the part of the *doctrineros*. In fact, any attempt to discourage the worship of idols by violent means, whether by forcibly seizing and

destroying the *huacas* or by physically punishing the idolatrous Indians, would be counterproductive since it would only instill hate and resentment in the natives. Instead, Acosta recommended "educating the Indians little by little in Christian behavior and discipline, silently rooting out the superstitious and sacrilegious rites, and reforming their barbaric ways" (346). This process required the constant attention of the missionary, who would have to reside among the neophytes to "teach them, reprimand them, encourage them, reassure them, defend them, and carry them in his arms" until they changed their ways (492).

Acosta's view of acculturation as a necessary first step toward achieving the true conversion of the Andean peoples was in consonance with Toledo's initiative to reduce the native population into settlements, with a Spanish *corregidor* (judge) and *doctrinero* in residence at each settlement. As already noted, Toledo's reduction plan closely resembled the one Matienzo outlined in *Gobierno del Perú*, where the reductions were seen as the only way in which the Spanish king could discharge his obligation to care for the spiritual and material well-being of the Amerindians: "Among other things that His Majesty is obliged [to do]. . . is to teach [the natives] the human way of life, so that they can be more easily taught our holy Catholic faith, which is the principal end to which we should all strive. So that this end can be met, Your Majesty has saintly provided . . . that the *Audiencia*, in accord with the bishops, little by little see that the Indians be reduced into towns."[53] For Matienzo, the reduction into towns would allow the Spanish authorities not only to catechize the indigenous population but also to force them more effectively to learn and speak Spanish, to abandon their ancestral ways in favor of Spanish customs, and to replace what he saw as a subsistence economy for the monetary one in use among Europeans.[54] Despite his support for the general model of the reductions, Acosta never went as far as Matienzo in his dismissal of native culture. Instead, following Ondegardo, he maintained that the social, political, and economical structures of the natives' societies should be preserved as much as possible as long as they did not contradict Christian doctrine or were against natural law.[55] Despite this claim in favor of protecting native culture, Acosta's attitude toward indigenous communities was certainly more paternalistic than that of Ondegardo, and deeply rooted in a conviction of the superiority of European culture and its right to rule and direct the Amerindians. Unlike the colonial officials who believed in the congenital inferiority of the native peoples—including Matienzo, who claimed their natural tendency to laziness and depravity could only be corrected through strict vigilance and coercion—Acosta contended that their inferiority was the product of historical processes that could be rationally explained and used as the foundation of a new and more effective missionary method.

NARRATIVES OF MIGRATION AND A NEW MISSIONARY METHOD

In Acosta's proposed missionary method, the grassroots work of the *doctrineros* was of paramount importance since the burden of teaching the Andean natives was on them. Therefore, Acosta needed to convince parish priests and reluctant colonial officials that the intellectual inferiority they attributed to the Andean peoples was the result of historic processes and not of any constitutional deficiency. This was not an easy enterprise, since any argument put forward by the Jesuits in favor of the ability of the Andean peoples to embrace Christianity was quickly dismissed by the more seasoned secular priests as mere ignorance of the realities of the land.[56] If *De Procuranda* was to be of any use not only to the Jesuit missionaries but also to the secular *doctrineros*, as was Acosta's declared goal, he would have to convince them of the feasibility of his project.[57]

In early 1577, following standard procedure for writers in the Society of Jesus, Acosta sent his treatise to Rome to obtain the general's approval for publication. Although the book greatly pleased Mercurian, who thought it was a most necessary and long-overdue work, its publication was delayed by the current conflicts between the Society and the Spanish Crown.[58] Aware of the delay, Acosta set to work on a brief Latin treatise on the natural history of America, *De Natura Novi Orbis*, which he sent to Rome in 1583 with precise instructions to print it alongside *De Procuranda* as a sort of introduction to the missionary manual.[59] Claudio Aquaviva, Mercurian's successor as Jesuit general, manifested his delight with the brief text and reassured Acosta that he would personally see it through publication. Aquaviva, repeating an analogy set forward by Acosta in the letter that accompanied the manuscript, considered *De Natura* to be to *De Procuranda* like a sauce that enhances the taste of a meal.[60]

Acosta hoped that the brief philosophical discussion of the American nature he now presented to regular and secular priests going to Peru would help convince them not only of the usefulness of missionary work among Andean communities, but also that the method he was advocating was suitable to the stage of cultural evolution of the Peruvian natives. In fact, Acosta strove in *De Natura* to endow his thesis of the inclusion of all races in God's plan for human salvation with a plausible—if highly conjectural—historical narrative.

De Natura was a very different book in tone and methodology than *De Procuranda*. The introductory treatise dealt neither with technical missionary nor theological points nor with the particularities of colonial rule in Peru; instead, Acosta discussed broader issues of New World nature and cosmography. In particular, he set himself up to refute some of the classical and patristic conceptions of the world that had already been superseded by the Spanish experience in America. Thus, Acosta took issue with such topical problems as the inhabitability of the Torrid Zone and whether or not the skies surrounded the globe of the earth. But if these matters were easily dismissed on logical grounds in light of

the Spanish experience in America, the mere existence of entire nations populating a continent not foreseen by the ancients posed more fundamental questions. Acosta could easily disprove most of the arguments against the existence of the antipodeans, such as Lactantius's mocking remark that since the inhabitants of the Southern Hemisphere would be forced to live upside-down, they could not be real.[61] But arguments such as the one put forward by Augustine in the fourth century were much more serious from a dogmatic point of view. Augustine had denied the existence of inhabited lands outside the known Greco-Roman world because such an idea could not be reconciled with scriptural teachings. His argument was that since the book of Genesis clearly states all human beings descend from Adam, any hypothetical population living on the other side of the world must have come from Europe, Asia, or Africa. Given that human beings lacked the capability of crossing "the boundless tracts of ocean," Augustine had concluded any mass of land in the Southern Hemisphere must be uninhabited.[62]

The Spanish experience in America made answering the basic question posed by the argument of the African bishop all the more urgent: how to explain the existence of the native inhabitants of America without contradicting the scriptures? The fundamental unity of the human species could not be doubted; all men and women must descend from Adam and Eve. If it was impossible for the ancients to have crossed from the Old World to the New, then America and every other piece of land in the Western Hemisphere must have been empty, as Augustine argued. But, since the Spaniards had found a flourishing native population upon their arrival, the only logical conclusions were that either the American peoples were the product of a parallel act of creation or they simply were a different kind of humanity, one not included in sacred history.[63] The first corollary was inadmissible from a Christian standpoint. The second one, however, was the very point Acosta had wrestled with in his missionary treatise.

As a complement to the theological arguments developed in *De Procuranda*, Acosta set out in *De Natura* to create a plausible historical narrative that would include the Amerindians within God's plan for human redemption. In order to do this, Augustine's underlying question needed to be met with rational and historical arguments explaining the descent of the New World population from those peopling the Old: "Certainly, we are not to think that there was a second ark of Noah in which men could have arrived to the Indies, much less that some angel brought the first settlers carrying them by the hair, as they did with the prophet Habakkuk," Acosta noted rather humorously. In fact, he was not to discuss what God could or could not do. Any solution had to be "in accord to reason, and to the order and style of human affairs."[64] Given this requirement, Acosta saw very few possible answers: the first inhabitants had arrived by sea, either in an organized transatlantic expedition (as the Spaniards had done) or accidentally, as the result of a sudden tempest; or, they had arrived long ago by foot.

Acosta concurred with Augustine about safely discarding the idea of an organized maritime voyage from the Old World, since the technical advances that allowed transoceanic navigation, such as the invention of the compass, were too

recent to have been used by the original settlers. No evidence of their use could be found in any of the ancient writers, so it was implausible to think that any ancient nation could have accomplished such a feat. An accidental landing due to a maritime storm that had pushed the helpless sailors away from African or European coasts, on the other hand, could hold as a working hypothesis, especially since modern examples of such wrecks had been documented (48–49). However, this option raised more questions than answers upon closer examination. An accidental arrival, Acosta observed, would explain the human population of the continent but not the presence of animals on it. Since the Universal Deluge had to have flooded the whole world, including America, all its native animals should have perished and the continent repopulated by the offspring of those saved by Noah. Acosta conceded that useful species could have been on board the hypothetical wrecked ship, but it was inconceivable that the sailors would have willingly embarked such noxious animals as foxes, mountain lions, or even skunks that were nonetheless fairly abundant in America. Any theory explaining the arrival of the first human beings onto the continent had to explain at the same time its fauna.

Acosta solved this conundrum by postulating the existence of a land bridge between Asia and America, located somewhere near the north or the south end of the continent. After the Flood, both animals and humans could have then populated the empty continent "gradually by ground travel, arriving in some places and wanting to be in new ones, and moving to different regions for convenience, [so that] all the peoples and nations resulted" (58). Although Acosta admitted to the speculative nature of his reasoning, given that nobody had explored either tip of America up to then, he accepted it as an adequate explanation, at least until experience showed otherwise. In the meantime, Acosta remarked, there was no logical or empirical objection to his conclusion that all of the land masses were continuous, or at least were close enough to each other to allow for human and animal migrations (58). His theory satisfactorily explained the origins of the American peoples within the received frame of sacred history.

At the same time, the land bridge hypothesis allowed Acosta to give a historical—if conjectural—ground to the claim he had argued theologically in *De Procuranda*: that the apparent differences in the intellectual capabilities among different peoples were due to historical reasons, and not to any constitutional deficiency on the part of the American natives. As human populations moved away from the original cultural centers—which Acosta located in the Mediterranean shores for historical and biblical reasons—they gradually lost the main features that defined civilized cultures in the European view, such as the use of alphabetic writing, urban life, political organization, and the existence of organized religious cults. In *De Procuranda*, Acosta had in fact used these features to postulate a descending classification into which every non-European society could be fitted.[65] In the first tier, he located nations that fulfilled all of the requisites described above but had a non-alphabetic writing, such as the Chinese and the Japanese. In the intermediate level, Acosta placed peoples who presented a political organiza-

tion but lacked writing. According to him, the Aztec and Inca empires belonged to this category.[66] Finally, the lowest tier was reserved for groups with no discernible political organization and who usually led a nomadic way of life—the groups the Spaniards referred to as *behetrías*. Using the idea of the Asian origins of the native peoples, Acosta could explain the different degrees of barbarism he had identified in his missionary treatise simply as a consequence of successive migratory waves from an original point. His three-tiered classification could now be read spatially as an eastward move away from the limits of the Judeo-Christian ancient world. Chinese and Japanese cultures, being closer to the original center, retained more of its features than Amerindian civilizations did. The apparent incapacity of the latter to comprehend the truth of the Christian message was, for Acosta, a consequence of human history—a function of what he perceived as a cultural involution resulting from a long migration and the Amerindians' subsequent isolation from the Mediterranean centers of culture.

The cultural differences at the base of this threefold classification of non-Christian, non-European peoples called for different missionary approaches. For those who belonged to the first tier, the best method was to emulate the apostles who had converted the Jews, Greeks, and Romans; that is to say, rationally convincing them of the superiority of the Christian truth without the need of any state support. The two other tiers required a colonial setting or at least the protection of a Christian army in order to preach the Gospels effectively and safely.[67] Although Acosta acknowledged that the Society of Jesus had used the first method in Asia—where he located the cultures belonging to the first tier—with considerable success, he was certain that this method would be impossible to apply to the American peoples given their level of cultural development. They needed to learn the basics of European civilization before any level of Christianization could be taught to them, and this would be possible only in a colonial setting under the rule of a Christian prince.[68]

Thus, in Acosta's view, the constant relapse of Andean neophytes into their traditional ways was due neither to any constitutional deficiency nor to their exclusion from the unfolding drama of human struggle for salvation as recounted in the Judeo-Christian historical narratives. Instead, Acosta identified both the incompetence of the secular priests and the strong presence of a native cultural tradition that needed to be overcome through education as the most probable causes of missionary failure. It was for these reasons that the evangelization program he proposed put several demands on *doctrineros* for its success: They were not only to be intimately acquainted with the official doctrine of the Catholic Church, they would also need to learn the native languages before taking up their parish posts. Furthermore, they would be expected to teach not only with words but also by means of example, leading modest and honest lives that would serve as models of Christian behavior to the Indians. The evangelization of native communities would be a slow and difficult process requiring the constant attention of the priest. To prevent their all-too-common relapse into their ancestral beliefs, the priests would have to constantly "teach them, reprehend them, exhort them,

reassure them, defend them, and guide them." In order to achieve this, it would be absolutely necessary "that the fathers and spiritual masters persevere immobile among them."[69] The indoctrination of the Indians would be a gradual process in which both Christian doctrine and European codes of behavior were to replace Andean traditions and practices slowly.[70] As Acosta clearly specified in *De Procuranda*, this would mean a concerted and sustained effort involving government officials, the church hierarchy, and parochial priests.[71] As presented in *De Procuranda*, it was also a very strong argument in favor of Jesuit acceptance of the *doctrinas*.

JESUIT MISSIONS AS CONTACT ZONES

Acosta's method of evangelization was put to test in the newly accepted *doctrina* of Juli. Located some sixty leagues east of Cuzco, Juli was in a thickly populated area on the shores of Lake Titicaca. When the six Jesuits arrived in Juli in 1576, there were sixteen thousand natives living there, all of them charges of the Crown who were not part of any *encomienda*. Juli was composed of three closely related parishes: San Pedro, Asunción, and San Juan, San Pedro being the administrative center of the *doctrina*.[72] Later on, the Jesuits would add a fourth parish, Santa Cruz. The priests collectively received an annual salary of three thousand ducats paid by the viceroy.[73] Juli proved to be the perfect place for the Jesuits to test the *doctrinas* as a missionary method. Despite his opposition, even Plaza admitted in his report to Mercurian that "here there are almost none of the difficulties that we feared about our people taking up the *doctrinas*; regarding seclusion, they live as if they were in a college; regarding the burden to the Indians in supporting the priests, they receive what I have told you from the royal treasury; regarding the physical punishments of the Indians, they have a vicar and a *corregidor*, who take care of the punishments." If the Society had to take up any *doctrinas*, Juli was the most suitable, "because there is no difference with a college except in the obligations of the curacy of souls, and in its administration being subject to the bishop's inspection."[74] With all certainty, Juli was the place to apply Acosta's missionary ideas.

This positive impression was furthered by the spectacular reception the Juli parishioners gave to Acosta when he visited the *doctrina* on December 21, 1576, on the occasion of the feast of Saint Thomas Apostle. Although Acosta had not informed them of his arrival, the Jesuits at Juli organized in "two or three hours a most solemn reception" that Acosta took pleasure in describing in detail:

> The schoolboys walked a long way ahead, singing in their language and in their way. Then came the men in great numbers, dancing two kinds of dances, wearing silk clothes in the Indian manner, and dancing in the Spanish style, and another dance performed by children who could barely walk; next came the *pingollos* or flutes, and some twenty-five or thirty crosses with their banners, and the leaders

> of the town with our fathers, and there was such a multitude of people on the roads, on the streets, and on top of the walls and roofs as if we were the pope's envoys.[75]

Acosta was pleasantly surprised to see such discipline and organization, a feeling that only grew when he saw the religious progress the community had made in barely a month of Jesuit teaching. In the eight days of his stay in Juli, Acosta witnessed the baptism of over thirty adults and the marriage ceremonies of well over one hundred couples who had until then lived out of wedlock.[76] Juli was certainly a success.

Of course this success could not be completely credited to a couple weeks of Jesuit efforts, no matter how hard they had labored. The Dominicans had worked in the area for about thirty years, and only left Juli in 1573, unwilling to fulfill the conditions demanded from them by Toledo to remain in the *doctrina*.[77] But when the Jesuits arrived, they conducted a complete reorganization of the parish. According to Diego Martínez (one of the first Jesuits in Juli), a week after their arrival, the Jesuits summoned all the parishioners, and Alonso de Barzana, the best linguist of the order in Peru, delivered a sermon in Aymara, the tongue spoken by most of the native population in the region. This fact stunned the native audience, who apparently had never been preached to in their own language before. That night, the Jesuits invited the *curacas* (community leaders) to dinner, where they discussed and agreed on the formal aspects of religious indoctrination so that the daily activities of the community would not be severely disrupted.[78] In a practice that would be repeated in other places in South America, the Jesuits would oversee and organize the communal work—mainly shepherding—in order to ensure the economical viability of the *doctrina* and to prevent idleness among the parishioners. The missionaries and the *curacas* also agreed on a method of distributing the population among the four parishes, respecting the ties between the different *ayllus* (the basic units of Andean social structure) as much as possible. The dinner marked one of the most notable differences between the Jesuits and other *doctrineros*; namely, their disposition to adapt themselves to local conditions. Although the missionaries held the effective power in the *doctrina*, they delegated some of their authority to the *curacas*, respecting and engaging the local leadership. The *curacas* were made responsible for the behavior of the individual members of their *ayllus*, and among their duties they were to make sure everybody attended Mass, catechism, and every other relevant ceremony. They were also in charge of preventing drunkenness during communal celebrations and denouncing anyone who relapsed to native beliefs.[79] The collaboration between missionaries and local leaders proved to be a fruitful one; Juli prospered under their joint guidance, and by the end of the eighteenth century, the community owned some five thousand sheep and over sixteen thousand llamas.[80]

Administrative duties aside, the Jesuits' main task was the indoctrination of the natives, and they devoted most of their time to that end. Given what was at stake for Acosta, the first Jesuits sent to Juli had been handpicked for this mis-

sion. In addition to Alonso de Barzana, who spoke both Quechua and Aymara fluently, two other fully ordained priests, Diego Martínez and Francisco de Medina, spoke Quechua, the lingua franca of the former Inca Empire; they could therefore preach and hear confession from at least some of their spiritual charges. Although the fourth priest sent to Juli, Diego de Bracamonte, seems to have had little talent for languages in general (Plaza noted that the three years of Latin he had taken as a student did not serve him at all), he was known as a natural mediator, a good administrator, and a pious man who prayed daily and who was well versed in the letter and the spirit of Jesuit legislation—all features well suited for the office of superior he was to occupy in Juli.[81]

The religious life of the *doctrina* was promptly organized to follow a very intense schedule. On Sundays, the community gathered in the square in front of the church where men and women were split up into groups of twelve or fifteen. One person in each group was designated to lead the prayers and the recitation of the catechism. In order to facilitate the memorization of these texts, the priests encouraged the use of *quipus*, the knotted strings used as a recording device by the Andean peoples up to this day. A sermon followed, and then Mass was celebrated, accompanied by music performed by native musicians. In the afternoon, the community went in procession to the main square, carrying silver crosses and reciting the catechism in Aymara. The children were also catechized in the afternoon, and a group answered the questions asked by others. Sometimes, instead of a sermon, the Jesuits staged a dialogue based on sacred history, an event that greatly delighted the natives. On weekdays, the children and the elders studied the catechism every day; the adults had to attend only every other day for a couple hours.[82]

Perhaps the most important and distinctive feature of Juli was the language school established there. Even though most of the Jesuits sent as *doctrineros* in 1576 spoke at least Quechua, they soon realized that they needed to learn Aymara as well if the evangelization was to be as effective as possible. Francisco de Medina admitted to Acosta that when he first learned of his selection as a missionary in Juli, he had felt "repugnance and feared for my own salvation, seeing how little I know of my own tongue, let alone theirs."[83] Diego Martínez was more optimistic, and affirmed that he wouldn't change his position for that of the king of Spain, despite the fact that he knew how to say only the Paternoster, the Salve Regina, and the Creed in Aymara. Still, he admitted that they needed someone else to help Barzana confess so many people, for the latter was to the point of feeling ill from lack of rest. The situation would only get worse now that the Jesuits were planning to open a primary school for about two hundred children, and Martínez suggested that lay brother Martín Picón, who also spoke Aymara, could be of the greatest help there.[84]

The learning of native languages as a precondition for any missionary work was emphasized several times by Acosta in *De Procuranda*. The 1576 Provincial Congregation had concurred with this view and agreed that the best place to learn Quechua and Aymara would be in the *doctrinas*, since there the Jesuits

could get enough practice to master the languages.[85] Barzana started to instruct his confrères in Aymara almost as soon as they arrived in Juli. In a couple years, these lectures became a full-fledged school where Jesuit missionaries were taught the Puquina language in addition to the more geographically extended Quechua and Aymara. As the 1579 annual letter to Rome reported, the Jesuit priests in Juli "exercise intensely on the language, and every day get together for one or two hours to make different exercises, compositions, translations, etc. We now have experienced that with this method they can learn enough of the Indian language in four or five months to confess and catechize, and in a year they can preach."[86]

This practice received institutional sanction in 1583 when General Aquaviva ordered every individual who entered the Society in Peru to take native language lessons.[87] In 1594, the Fifth General Congregation of the Society, among whose participants was Acosta, made the knowledge of native languages compulsory for Jesuits working in America.[88] To that end, Juli was designated as a residence for young Jesuits finishing their formation in Peru (a process known as the third probation) in order to ensure that every member of the order was sufficiently exposed to Quechua and Aymara so he could function as a missionary.

The special place that language teaching quickly acquired in Juli is amply visible in the anonymous Jesuit chronicle of 1600. In 1576, Acosta's and the Provincial Congregation's main motivation to accept Juli was their conviction that the *doctrinas* were the missionary vehicle that would best cater to the spiritual needs and cultural level of the Andean neophytes. In the annual letter corresponding to 1576, Acosta squarely reported that "the main reason that the fathers of the Society of Jesus had to go there was that the viceroy and His Majesty adamantly insisted on it. Also, it seemed that we ought to experiment with this method of indoctrination, which in this kingdom seems to be the most efficacious for the conversion and salvation of the natives."[89] Barely twenty-four years later, the anonymous Jesuit chronicler unambiguously asserted that the principal consideration that had motivated the Peruvian Jesuits to accept and later keep Juli was because they could establish there "something like a language school for the sons of the Society, who, being away from the commerce with other Spaniards and having no truck with them, dedicated to working only with the Indians, could in a brief time learn the [native] language in order to be sufficiently wholesome workers, able to confess and preach to the Indians."[90]

Although formally a mission, the Juli *doctrina* also functioned as a college in practice, as Plaza had been keen to notice. In spite of the pride with which the anonymous chronicler of 1600 publicized Jesuit success in teaching the natives European ways, the Jesuits were also willing to learn as much as they could from native culture and traditions.[91] In fact, constant conversation with the natives in their own language was recommended in the rules Provincial Juan de Atienza wrote for Juli in 1586.[92] This practice produced more than just Jesuit missionaries more or less fluent in native languages. In a memorandum written in 1595 by Juan Sebastián, Atienza's successor as provincial, he reported that "the fathers of Juli have started to write a book of sermons and another of moral examples in

the Aymara tongue, and they have also written a vocabulary [of the same language]."[93] In 1612, an Aymara grammar and dictionary compiled by the Italian Jesuit Ludovico Bertonio was published by the printing press the Jesuits had in Juli.[94] These works were the product of a close collaboration between Jesuit linguists and native informants. Bertonio asked the people of Juli, who had been taught to read and write by the Jesuits, to translate into Aymara sample texts based on the life of Christ, the lives of the saints, and moral examples. This exercise had, of course, an evangelizing purpose that was not lost on Bertonio, but these translations, along with his daily experience of talking to the Indians and carefully listening to what they had to say, also formed the basic *corpus* on which the Italian Jesuit based his grammatical and lexicographical research. As Sabine MacCormack has aptly summarized, when it came down to Andean languages and cultures, in Juli the Jesuit teachers became the students and the native students became their teachers.[95] As we shall see in the following chapters, this intellectual interaction between missionaries and natives would become one of the staples of Jesuit scientific activity in South America.

Juli became the model for other Jesuit missions in South America, most famously in Paraguay. Here, as in other places of the continent, the cohabitation of the missionaries with the native communities stimulated the intellectual pursuits of the Jesuits. During the seventeenth century, the Jesuit missionaries published a flurry of grammars and vocabularies of native languages—in some cases the only ones ever written. Languages like the Millcayac and the Allentillac spoken in the Cuyo region of present-day Argentina, or the Mapudungun, spoken by the Chilean Mapuche, were systematized for the first time by Luis de Valdivia during the first decade of the seventeenth century.[96] In 1595 in Coimbra, Joseph de Anchieta published a grammar of the Tupi language, and in 1639, Antonio Ruiz de Montoya's *Tesoro de la lengua guaraní* appeared.[97] But the collaboration between Jesuit missionaries and native informers was not limited only to lexicographical and linguistic research. As we will see in the next two chapters, the use of native informants from the missions was an important aspect of Jesuit botanical and medical activity in South America.

It is in this regard that the Jesuit missions can be conceptualized as contact zones—as privileged spaces where individuals belonging to different cultural and historical traditions came together in unequal power positions under which both parties exchanged information relevant to their respective cultures.[98] The fact Juli was organized following the model of Jesuit colleges, as Plaza informed his superiors, only accentuated this feature. Although evangelization was the Jesuits' main concern in the missions and *doctrinas*, it shared their attention with more scholarly pursuits. In his 1586 rules, Atienza recommended that the *doctrineros* use any spare time they had to devote themselves to the study of native languages "and other subjects" so they could regain the strength they needed for the strenuous task of converting the natives to Christianity.[99] As in the European colleges envisioned by Ignatius Loyola, in places like Juli and the Paraguayan missions, quiet dedication to one's studies was not seen as opposed to the more active pastoral

duties of a missionary, but as a valid means of achieving spiritual ends, not unlike prayer or divine contemplation.[100]

This combination of pastoral goals and scholarly interest would mark one of the most peculiar features of the activity of the Society of Jesus in South America. As in the case of Bertonio (for whom grammatical and lexicographical study was an indispensable tool for advancing the order's missionary agenda), other Jesuits saw a similar function for the study of nature. At any rate, as we will see in the remainder of this first part, Jesuit missions and *doctrinas* were places where intellectual activity and scientific research were actively pursued, and information about natural phenomena was constantly being exchanged through the order's epistolary networks. And, just as in Bertonio's case, the collaboration of native informants was directed—and sometimes enforced—by Jesuit priests taking advantage of their superior position in the mission's hierarchy. This fact marks one of the fundamental differences between Jesuit intellectual activity in the American Spanish possessions and the work members of the order carried out in the colleges and universities in Europe. Unlike the studies of Christopher Clavius, Giambattista Riccioli, and Juan Eusebio Nieremberg, to name just a few European Jesuit writers, the scientific research pursued by the Jesuits in seventeenth-century South America was truly a colonial enterprise, both in methods and objectives.

When José de Acosta returned to Spain in 1586, Juli was solidly established as a model reduction that embodied his vision for the evangelization of native Andeans, and the relationships between Crown officials and the Peruvian Jesuits were on a better foot. Juan de la Plaza, who always opposed the *doctrinas*, had finished his *visita* in 1579. In 1581, Francisco de Toledo had been called back to Spain and was succeeded as viceroy by Martín Enríquez de Almansa. By the end of the sixteenth century, the acceptance of the *doctrinas* had ceased to be an issue for the Jesuits. With the creation of the Paraguayan province in 1607, the Juli model of reduction replaced the itinerant missions that had been used to evangelize the Guarani groups up to that point. The same model was used when, in the middle of the seventeenth century, the Jesuits started to evangelize the tribes that inhabited Moxos in the Bolivian Amazon.[101] In fact, in 1603, Claudio Aquaviva sent to the Peruvian province an instruction intended to foster and improve the missionary activities of the viceroyalty—activities that he now dubbed "the main objective of our mission in those lands."[102] Although the Jesuits still practiced urban ministries and led successful and thriving colleges for the offspring of the colonial elite in almost every Spanish American city in which they were present, their priorities had changed since the time of their arrival in Peru: as Aquaviva recognized, missionary enterprises were now at the forefront of Jesuit activity in South America.

Acosta's tenure as provincial had been instrumental to this change. He had not only pushed for the Jesuit acceptance of the *doctrinas* at the 1576 Provincial Congregation, he had managed to quench Plaza's opposition to the project at the

same time. His manual gave the Jesuit missionaries a set of guidelines to follow when confronted with the diversity of cultures, environments, and local conditions in which they would have to make do. Acosta's work, with its combination of missionary concerns and scientific curiosity (represented in the simultaneous publication of *De Natura* and *De Procuranda* as a single volume), also marked a path to be followed by other Jesuits during the seventeenth century. Acosta, in fact, translated *De Natura* into Spanish and greatly expanded it, turning it into a full-fledged natural history of America that included the results of his research in the history and mores of the Aztec and Inca cultures. The resulting *Historia natural y moral de las Indias*, published in 1590, became one of the most popular and influential natural histories of the New World until the eighteenth century, with translations into all the major European languages. But even this book—an ostensibly philosophical treatise that sought to describe American nature and to explain the causes of its natural phenomena—was written with the evangelization of the Amerindians in mind.[103] Acosta's view of scientific research as a spiritual enterprise to inform and foster the missionary endeavors of the Society of Jesus in South America was clearly articulated in his 1588 dedication of the joint edition of *De Natura* and *De Procuranda* to King Philip II: "If, as befits God's ministers, we can achieve a faithful and prudent treatment of [the matters of natural philosophy and the propagation of the Gospel], without a doubt big advances will be made in the knowledge and veneration of Christ." The project was embraced by several Jesuit missionaries who followed in Acosta's footsteps during the seventeenth century. As we will see in the next two chapters, both the opportunities and the challenges presented by the missions pursued by the Society of Jesus in different parts of the continent allowed some of its members to combine their interests in natural research with their apostolic goal of bringing the native Americans into the flock of the Catholic Church.