Our knowledge of the impact of Spain in America has recently gone through important changes. These changes have led not only to reformulation of the kinds of questions scholars ask but, more significantly, have also increased public awareness that the arrival of Europeans on American shores unleashed on native peoples sustained and unprecedented destruction. It is not a pleasant story to tell or to hear. Everywhere one looks, disaster abounds.

That the causes of Indian demise were complex, myriad, and interwoven is indisputable, as indisputable as the fact that some native peoples fared much better than others in the face of European settlement and colonization. Consensus is finally emerging where dissent prevailed before. This consensus acknowledges not only that Amerindian numbers dropped precipitously following conquest by imperial Spain but also that native population decline may be attributed in large part to the introduction of Old World diseases against which New World inhabitants were immunologically defenseless.
While the disease factor is now widely recognized as a key variable in explaining patterns and processes of Indian survival, few attempts have been made thus far to devote an entire volume to its study. Our intent in this collection of essays, therefore, is to examine the role disease outbreaks played in shaping the colonial experience of native peoples throughout Spanish America.

The essays gathered here are the result of years if not decades of individual initiatives that took on a decidedly collective dimension when the contributors met in Amsterdam in July 1988 to present papers at the 46th International Congress of Americanists. The quality and range of the presentations, we think, warrant their being brought together in the present form. Most edited collections seem to suffer from a lack of focus born of frustrated efforts to relate disparate parts to an elusive whole. In an attempt to minimize this occurrence, we decided to select from the Amsterdam session only those contributions that deal primarily or exclusively with the impact of Old World disease on native peoples during the colonial period in Spanish America.

Woodrow Borah served to draw discussion to a close in Amsterdam by assessing the “state of the art” in our chosen field. It seems fitting, indeed something of a natural reversal, that what were first conceived as concluding remarks now serve as an opening statement. Borah’s original charge called for him to review pertinent research not just on Spanish America but for the entire New World. The hemispheric coverage of his first draft Borah then pruned to meet our revised terms of reference. In a letter to us, he rightly argued: “The difficulty is that disease does not politely conform to political boundaries. For that matter, in the sixteenth century and much of the rest of the colonial period, there were few political boundaries of importance anyway.”

While the analysis of available literature that forms the introduction to this volume sees Borah delimit his critical faculties at our request, he nonetheless evaluates
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"titles that fit into the Spanish period in the northern borderlands and those that relate to certain general phenomena that may have been detected north of the Río Grande but are of importance south of it as well." Other chapters also incorporate valid findings from various parts of the world, but the focus remains, in time and in space, colonial Spanish America.

After Borah sets the scene, several contributors present chronologies of the diseases that swept through different regions at different times. Hanns J. Prem pieces together an epidemic sequence for central Mexico in the sixteenth century. Of particular interest in Prem's reconstruction is his appraisal of Indian records that augment better-known, though not always fully utilized, Spanish texts. Prem scrutinizes his sources with caution before venturing an opinion as to what possible diseases match the symptoms and characteristics described. He delineates what may have been epidemic waves of measles and typhus occurring at roughly thirty-year intervals and contends that, following contact, the downward curve of population movement was not continuous, but jagged, and plummeted with each major bout of sickness. Elsewhere in Mesoamerica, W. George Lovell establishes a disease chronology for Guatemala which indicates that as many as eight pandemics struck Maya peoples there between 1519 and 1632, during which time dozens of other more localized outbreaks of sickness also occurred. The argument Prem makes for central Mexico is supported by Lovell's interpretation of the materials extant for Guatemala: because of inadequate, ambiguous, or contradictory evidence, it is often impossible to determine precisely what certain pandemics were, especially when more than one disease was present. Loss of life, however, was pronounced, as were the social and economic repercussions of disease outbreaks.

Linda A. Newson then reconstructs the epidemic history of sixteenth-century Ecuador. She concludes that, in contrast to what some scholars maintain, disease out-
breaks had a major impact on the native population. At least five pandemics can be identified between 1524 and 1591, with, as in the case of Guatemala, numerous other outbreaks of sickness occurring at the local level. Newson also finds little evidence to support the unhealthy reputation of the coast of Ecuador earned in the minds of contemporary Spaniards. Similarly, she finds nothing of significance in the accounts of the expeditions of Francisco de Orellana or Pedro de Ursúa and Lope de Aguirre to indicate that diseases from Ecuador spread into the Amazon during the first half-century or so of Spanish movement. Farther north, for the Chibcha of the Sabana de Bogotá, Juan and Judith Villamarín chart the incidence and impact of epidemics for almost the entire colonial period, 1536 to 1810. The Villamarins, in addition, glean information from records relating to the parish of Chía to provide a more specific appreciation of what events might look like at the community as opposed to the regional level of analysis. Theirs is an investigative approach sensitive to the nuances, and connections, of locale.

If Chía serves as a community study whose case particulars both reflect and refine the larger context of which it forms part, so also does another Andean micro-history. Brian M. Evans traces mortality patterns in Aymaya, a community in Alto Perú, from 1580 to 1623, using as his data base court records arising from disputes about Indian tribe obligations. Called upon to furnish the baptismal and burial rolls of Aymaya in the course of legal proceedings, local clergymen submitted detailed accounts that enable Evans to document the crippling impact of smallpox in 1590 and again in 1608 and 1610.

A shift from countryside to town is marked by Suzanne Austin Alchon’s study of eighteenth-century Quito. Alchon, like Evans and the Villamarins, takes care to situate what happened in Quito in historical and geographical context. The population of Ecuador, follow-
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population. At the beginning of the sixteenth century, the population of Quito was estimated at 12,000 inhabitants. During the sixteenth century, Quito's population doubled, reaching approximately 24,000 by the end of the century. This growth was due to immigration and natural increase. However, the growth was short-lived as the city was hit by several disease outbreaks between 1692 and 1695, which prefigured a series of epidemics that struck throughout the eighteenth century. Quito did not escape these visitations and, as a result, declined in population during the 1740s and beyond. The city was particularly hard hit by an epidemic of measles in 1785-88. Also dealing with disease impact in the late colonial period, but in a natural and cultural setting quite unlike eighteenth-century Quito, is Fernando Casanueva's study of smallpox in the frontier zone along the Bio-Bio river in southern Chile in 1791. Significant here is the role of government policy, especially the question of imposing quarantine measures to curtail the spread of disease, and indigenous response to the ravages of smallpox. The weakened condition of native peoples in the wake of the epidemic enabled Spaniards to assert their authority over a region that had long eluded effective imperial control.

Following these essays, which reveal the benefits that accrue when historians, geographers, and anthropologists work together, our concluding essay outlines the evolution of a web of disease that developed in the New World in the wake of European expansion. Wave after wave of Old World disease swept the Americas, following well-established routes of trade and communication. Disease impact varied according to a number of factors, but by the seventeenth century aboriginal numbers had been massively reduced and native ways irreversibly altered. Sickness that had raged in epidemic form in the sixteenth century by the eighteenth had become endemic, occurring more sporadically among an Indian population that in most regions had begun to recover from the epidemiological shock of conquest. Important strands that mesh and connect are readily identifiable, but other features of the web of disease...
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await patient and rewarding research. If this volume accomplishes nothing more than to persuade readers that much of enduring worth and relevance remains to be done before the meaning of 1492 can properly be known, we will be well pleased.

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Every book, especially this, carries with it a debt. Every book identifies certain people with which they feel involved and responsible for the initiative or support which helped to fruition.

A special vote of thanks is due to Henry F. Dobyns, for without his initiative the editors first met each other. It was organized on Native American History held at the Newberry Library in 1983. Henry’s bringing together not just of an informal friendship that has sustained us as we approach scholarship and much and have benefitted immeasurably from understanding and...