

UNIVERSITY OF CALIFORNIA  
Los Angeles

Nahua and Spanish Concepts of Health and Disease in Colonial Mexico, 1519-1615

A dissertation submitted in partial satisfaction of the requirements for the degree Doctor of  
Philosophy in History

by

Rebecca Ann Dufendach

2017

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## ABSTRACT OF THE DISSERTATION

Nahua and Spanish Concepts of Health and Disease in Colonial Mexico, 1519-1615

by

Rebecca Ann Dufendach

Doctor of Philosophy in History

University of California, Los Angeles, 2017

Professor Kevin B. Terraciano, Chair

This dissertation uses a wide variety of original historical sources to examine Nahua (Aztec) and Spanish concepts of health and sickness in the sixteenth century, and how both cultures applied these concepts in their attempt to understand the widespread, devastating epidemics that plagued colonial Mexico or New Spain. The Nahuatl and Spanish texts of the *Florentine Codex* and the *Relaciones Geográficas*, in addition to several other pictorial and alphabetic writings, abound with information on a topic that is little explored and poorly understood: how did indigenous peoples comprehend and remember the terrible, recurring diseases that wiped out about 90% of their population over the course of a century? How did they associate disease with the arrival of the Spaniards, the conquest, Christianity, and colonial rule? How did they speak and write about these matters? And how did their words on these topics differ from what the Spaniards said? How did Spanish cultural concepts, based on Greek, Roman, and Christian understandings of the body, conform with and contradict Nahua beliefs and practices. What were the implications of the similarities and differences? How did the dominant group attempt to discredit native practices and beliefs regarding health and illness that they considered pagan or superstitious? Did Nahua concepts persevere and survive?

This dissertation addresses these questions for the Nahuas of central Mexico, focusing on the period from 1519 to 1615, a period in which at least three major epidemics ravaged the indigenous population of New Spain. But the findings are applicable to all parts of the Americas in the early modern or colonial period, up until the early nineteenth century, when nearly all indigenous peoples in the hemisphere came into contact with Europeans and Africans and the pathogens that they carried with them across the Atlantic Ocean. Many works have addressed the nature of the epidemics and the extent of the demographic decline, but few studies in the Latin American field of history and related disciplines have endeavored to recover indigenous voices on this topic.

This dissertation contributes to the research of ethnohistorians who seek to recover indigenous perspectives of history by reading numerous different types of historical sources, including native-language alphabetic documents and pictorial writing systems. By correlating historical evidence from the colonial period with ethnographic evidence from the modern period, I show how certain Nahua and Mesoamerican beliefs and practices about health, sickness and healing have endured in Mexico today, despite all odds. This dissertation also contributes to the history of science in the Spanish colonial world by examining texts on medicine produced by indigenous authors and healers, knowledge that was sought after by Europeans. Finally, this interdisciplinary study enhances our understanding of a deadly trans-Atlantic exchange from the perspective of indigenous peoples who managed to survive and record their experiences.

The dissertation of Rebecca Ann Dufendach is approved.

Pamela Munro

Teofilo Ruiz

Mary Terrall

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2017

For Das

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#### **LANGUAGES**

Spanish, fluent in speaking, reading, and writing  
Nahuatl, intermediate speaking, reading, and writing  
Latin, intermediate reading and writing  
Zapotec, elementary speaking, reading, and writing

## Introduction

In her exploration of the common diseases or *cocoliztli* experienced by the indigenous people of Veracruz, Mexico, Sabina Cruz de la Cruz describes her cultural concepts of illness. Her text is written in Nahuatl, the language of the indigenous people of central and eastern Mexico. She explains that *yacatzompilli*, what could be translated as the flu or *gripa*, occurs when people fail to bathe properly after being caught outside in the rain.<sup>1</sup> Cruzes' text indicates the healing power of bathing to maintain health, a perspective held by Nahuatl-speaking peoples living in the sixteenth century. Nahuas living in the early colonial period presented their views of health and illness in the writings that they produced in their native language of Nahuatl.<sup>2</sup> Like Cruzes' text, perceptions of illness in the colonial period were translated into terms and cultural concepts that could be understood by non-Nahuatl speakers, by Spaniards. This dissertation explores the process of translation of cultural concepts of illness and health, and how it influenced the different ways that people understood epidemic diseases in the period between 1520 and 1615. In colonial Mexico, or New Spain, Nahuas and Spaniards translated Nahuatl-language texts into Spanish, but the translation from Mesoamerican to Iberian worldviews was not a simple process. Early modern Iberian understandings of health and illness were based on cultural and religious traditions, recorded by physicians and priests. They approached the issue of health from a completely different perspective.

In his prologue to the first of twelve books on the society and culture of the Nahuas of central Mexico, a lengthy manuscript now known as the *Florentine Codex*, fray Bernardino de

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<sup>1</sup> Sabina Cruz de la Cruz, "Cocoliztli tlen ahachica techpano" *Yolitia: Revista en lengua Náhuatl* Num. 4, March (2017) 14.

<sup>2</sup> All translations from Nahuatl to English are my own. Regarding texts with previous translations, I used them to supplement my translation work. All translations from Spanish to English are my own.

Sahagún likened the work of the priest to that of the healer. On the first folio of his life's work, the Franciscan wrote that "The physician cannot advisedly administer medicines to the patient without first knowing from which humor or source the ailment derives...preachers and confessors are physicians of the souls for the curing of spiritual ailments."<sup>3</sup> This quote illustrates Sahagún's understanding of health as a matter of spiritual and bodily importance. His comparison between the physician and the priest reflected the Early Modern Iberian conviction of a separation between the body and the soul.<sup>4</sup> He viewed the work of doctors and priests as essentially the same; one expert focused on the body and the other on the soul. Sahagún's conception of the soul as separate from the body informed his judgment of health and the treatment of illnesses. The western understanding of the separation of body and soul differed from beliefs held by the many Nahuas who wrote the *Florentine Codex*. Although Sahagún began to organize the encyclopedic project in the 1540's and completed the manuscript by 1579, the authorship of the document is a complex matter. He certainly oversaw the translation of the text, he wrote the prologues to each book in Spanish, and he wrote several interpolations on Spanish throughout the work. But beyond those certainties, Sahagún's precise contribution to the source remains unclear. The Nahua scholars who gathered information from Nahua elders to create the text and images of the *Florentine Codex* were the primary authors who produced the Nahuatl text, which was written first and is longer than the Spanish translation. They explained

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<sup>3</sup> Bernardino de Sahagún, *El Códice Florentino de Bernardino de Sahagún* 3 vols. Mexico City: Secretaría de Gobernación. Facsimile (1979 [1575-79]) vol. I, fo. 1.

<sup>4</sup> Plato, *Plato in Twelve Volumes, Vol. 1* trans. Harold North Fowler (Cambridge, MA, Harvard University Press; London, William Heinemann Ltd. 1966) The earliest reference to the separation of the soul and the body is found in the Dialogues of Plato (428 B.C.E.-347 B.C.E.) His *Cyclical Argument* found in the Middle Dialogue *Phaedo* presents the body as perishable and the soul as eternal.

their concepts of illness in the Nahuatl-language text of the document, a major source of information on Nahua concepts of health and illness in this dissertation.

In contrast to Sahagún's prologue, the Nahua writers and artists described health as a responsibility vested in the individual and the community. Nahuas based their health beliefs on two concepts: the status of the community and the organization of the household. Nahuas closely identified with their specific *altepetl* or ethnic state. The health of the *altepetl* depended on environmental cleanliness and adherence to calendar rituals. For the Nahuas, the ordering of the physical and the spiritual world was imperative for the maintenance of health. They often expressed communal and household health in terms of equilibrium, order, and stability. To maintain household stability and cleanliness several daily chores were necessary, such as sweeping, feeding the hearth, and making offerings. They described individual health as a matter of personal cleanliness and mental wellbeing that influenced, and in turn was influenced by, the harmony of one's community. Individual health contributed to collective health but hinged upon physical cleanliness and moral rectitude. Moral codes were inscribed in daily activities and negative behaviors were associated with poor health. People washed their hair and participated in daily bathing, actions with moral, spiritual and physical ramifications for health. The polluting forces that infected negligent individuals and communities were described in Nahuatl-language documents as *tlazolli*. Things such as dust, mud, cobwebs, excrement, sweat, and any other substance with a foul odor or in disarray were evidence of a state of pollution or *tlazolli*. These substances were caused by immorality or deviance from socially prescribed behaviors. Ordinary indigenous people who became tainted by these activities could spread contagion to their family members or others in their vicinity. Polluting behaviors, such as the disorder following a violent invasion, caused disequilibrium and sickness that could spread

throughout the community. Many concepts of health and illness articulated in the Florentine Codex appear in other Nahuatl texts written during the colonial period.

This dissertation examines Nahua concepts of health and illness found in colonial texts, and then analyzes the same topic in the early modern Iberian world. Both Nahuas and Spaniards deployed their understandings of health and illness to comprehend the devastation wrought by epidemic diseases during the colonial period. I investigate the ways that Nahuas understood health and how their cultural concepts of illness affected their histories of the conquest and subsequent epidemics. Few scholars have identified how Nahuas understood health and illness, even fewer have connected these notions to the realities of disease in New Spain. The depopulation of indigenous communities, largely due to diseases, shaped colonial processes in New Spain.

Before the arrival of Europeans, the Mexica (often called Aztec) dominated and demanded tribute from most of their Nahuatl-speaking neighbors. The Nahua peoples, in general, experienced endemic gastro-intestinal and fever ailments before the conquest, but epidemics and zoonosis were not prevalent.<sup>5</sup> Before contact in 1519, the estimated population of central Mexico hovered between 15 and 30 million people; it plummeted to two million people by 1600.<sup>6</sup> Although scholars have acknowledged how warfare, colonial abuses, droughts, and famines contributed to this decline, most conclude that epidemic diseases caused the majority of deaths.<sup>7</sup>

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<sup>5</sup> Suzanne Austin Alchon, *A Pest in the Land: New World Epidemics in a Global Perspective*. Albuquerque: University of New Mexico Press, 2003; Sherburne F. Cook, "The Incidence and Significance of Disease among the Aztecs and Related Tribes" *Hispanic American Historical Review* Vol. 26, 3 (Aug. 1946) 329; Francisco A. Flores, *Historia de la medicina en México desde la época de los indios hasta el presente* (Mexico, 1886-1888) 3 vols., 151.

<sup>6</sup> Sherburne F. Cook, and L.B. Simpson, "The population of Central Mexico in the sixteenth century" *Ibero Americana* 31, (1948) 43-55; Sherburne F. Cook and Woodrow Borah, "The rate of population change in Central México 1550-1570: *Hispanic American Historical Review* 37 (1957) 460-470; Charles Gibson, *The Aztecs under Spanish Rule. A History of the Indians of the Valley of Mexico*. Stanford University Press, Stanford, 1964, 593.

<sup>7</sup> Rene Acuna-Soto, David W. Stahle, Malocom K. Cleaveland, and Mathew D. Therrell, "Megadrought and megadeath in 16th Century Mexico" *Emerging Infectious Disease* 8, (2002) 360-362; David W. Stahle, Edward R.

The first wave of epidemic disease (1520-1) began when Spaniards led an invasion of Mexico City, then called Mexico-Tenochtitlan. In addition to superior weapons and indigenous allies, Spaniards possessed the accidental biological advantage of epidemic disease, which undoubtedly contributed to the fall of the Mexica capital. Colonial sources document how the Mexica expelled the invaders after the outbreak of war in Tenochtitlan. As the Spaniards regrouped following their initial defeat, the first epidemic swept through the island city. This epidemic, like others that afflicted millions of people in the Caribbean, Andes, and other parts of the Americas, killed an untold number of people and dramatically changed the nature of the Spanish-led invasion and the ability of the Mexica to resist it. Following the death of the Mexica leader, Moteuczoma, who initially brokered peace with the invaders, disease spread rapidly through all the Nahuatl communities of central Mexico. The spread of the pestilential illness called *cocoliztli totomonaliztli*, which most scholars translate as smallpox, severely hindered Mexica abilities to defend their capital city. Warriors perished alongside men and women, young and old. The Mexica ruler, Cuitlahuac, who assumed power after Moteuczoma, died from the disease in the absence of the enemy, when the Spaniards had retreated from the city. It was at that time, when the *altepetl* reeled from the mysterious disease and its leadership was broken, that Hernando Cortés and his forces remounted an attack. Despite their weakened defenses, the Nahuatl fought off the Spanish-led forces, which included thousands of indigenous "allies." The invaders used a lengthy siege to destroy and capture the Nahuatl capital. Clearly, the devastation of the first smallpox epidemic aided the invading Europeans and impaired Mexica defenses. In 1521, the Spaniards asserted control of Tenochtitlan, renaming it Mexico City, and went about

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Cook, Malcolm K. Cleaveland, Matthew D. Therrell, et al. "Tree-Ring Data Document 16th Century Megadrought over North America." *Transactions American Geophysical Union* 81, no. 12 (2000): 121–25.



establishing their colonial government. According to some scholars, the first epidemic of 1520 caused five to eight million deaths, and the second in the 1540s killed an estimated five to fifteen million people, or up to eighty percent of the population.<sup>8</sup>

During the second major epidemic in central Mexico, what was likely a compound epidemic of influenza, measles, and typhus (*matlazahuatl*), the Nahuas and other indigenous groups of New Spain suffered massive destruction and loss.<sup>9</sup> The colonial government of New Spain was woefully unprepared for the first public health crisis of the second epidemic, which lasted from 1545 to 1548. Bewildered doctors and priests attempted to aid the indigenous population through palliative means but did little to stem the deaths. Nahua healers continued to create their own remedies to heal the sick. To some Spaniards, the second epidemic signaled the future extinction of indigenous peoples, the destruction was so widespread. In this apocalyptic setting, Nahua elders and younger men schooled in colonial ways participated in church-sponsored projects to document their society and culture, their flora and fauna. A few Spanish friars hoped to record Nahua traditions and language, while Spanish officials surveyed the population on numerous subjects. The European instinct to collect information on the new population led in part to the creation of sources that anchor my research on concepts of illness during the colonial period. Many of the projects were threatened by disease. The Florentine

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<sup>8</sup> Sherburne F. Cook, Woodrow Borah, *Essays in Population History* *Essays in Population History*. University of California Press, Berkeley, 1971-1979; Ibid, "Conquest and Population: A Demographic Approach to Mexican History" *Proceedings of the American Philosophical Society* Vol. 113, No. 2, (Apr. 17, 1969); Robert McCaa, "Spanish and Nahuatl Views on Smallpox and Demographic Catastrophe in Mexico" *Journal of Interdisciplinary History* (Winter 1995) 25 no. 3: 397-431.

<sup>9</sup> Hans J. Prem, "Disease outbreaks in central Mexico during the sixteenth century." in *Secret Judgments of God: Old World disease in Colonial Spanish America*, eds. Noble David Cook and W. George Lovell. Norman: University of Oklahoma Press, 1991, 20-48; Francisco Guerra. "El efecto demográfico de las epidemias tras el descubrimiento de America." *Revista de Indias* (1986) 46: 53

Codex was completed in the midst of a major epidemic, at the same time that colonial officials sought to survey communities throughout New Spain with detailed questionnaires.

The final major disease outbreak of the early colonial period began in 1576 and was recorded in many histories of the period. Scholars have used these records to identify the disease and to calculate population estimates. Scholars have shown that environmental factors such as drought contributed to the devastation from hemorrhagic fevers.<sup>10</sup> The epidemics that began in 1576 continued into the seventeenth century, causing the indigenous population of Mexico to drop by two thirds.<sup>11</sup> The steep depopulation made available to Spaniards lands that had been cultivated previously by Nahuas. During the period from 1590 to 1605 Spanish officials attempted another *congregación*, a process of consolidating indigenous settlements in order to facilitate easier administration. In some places, this forced movement of people and their houses to a designated center upset traditional Nahuatl *altepetl* organization and agriculture.<sup>12</sup> Another late sixteenth-century change involved the conscription of indigenous labor for Spanish enterprises, a coerced labor institution known as *repartimiento*. The shift from the *encomienda*, a grant of indigenous labor and tribute to a Spanish *encomendero*, to the *repartimiento* drew

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<sup>10</sup> Elsa Malvido, "Cronología de las Epidemias y Crisis Agrícolas de la Época Colonial" *Historia Mexicana* 89, (1973) 96–101; Fernando Ocaranza, "Las grandes epidemias del siglo XVI" ed. Ocaranza F. *Historia de la medicina en México*. México, Conaculta, 1995, 176–178; Elsa Malvido and C. E. Flores, *Ensayos Sobre la Historia de las Epidemias en México*. México: Instituto Mexicano del Seguro Social, 1985, 383–395; John S. Marr, and James B. Kiracofe, "Was the Huey Cocoliztli a hemorrhagic fever?" *Medical History*. 44 (2000) pp. 341-362; Rodolfo Acuna-Soto, Leticia Calderón-Romero, and James H. Maguire, "Large epidemics of hemorrhagic fevers in Mexico, 1545–1815" *The American Journal of Tropical Medicine and Hygiene* 62 (2000) pp.733–739.

<sup>11</sup> Hanns J. Prem, "Spanish Colonization and Indian Property in Central Mexico, 1521-1620" *Annals of the Association of American Geographers*, Vol. 82, No. 3, (Sep. 1992), pp. 444-459.

<sup>12</sup> Peter Gerhard "Congregaciones de indios en la Nueva España antes de 1570." *Historia Mexicana* 26:347-95 (1977); Jack A. Licate "Creation of a Mexican land- scape: Territorial organization and settlement in the eastern Puebla Basin, 1520-1605: Department of Geography Research Paper 201. (Chicago: University of Chicago, 1981): 88-98; The colonial administration began the process of *congregación* in the 1550's however it was not enforced in earnest until the 1590's.

Nahuas away from their own communities and increased contact between Spaniards and Nahuas. Changes in labor regimes and household organization continued into the seventeenth century. Population decline and cultural change were intertwined in this period; although the rate and extent of change varied from one region to the next, population decline affected all regions more or less simultaneously. Both phenomena were most pronounced in central Mexico, where indigenous peoples came into sustained, prolonged contact with Spaniards and ethnic others.

The three major waves of epidemics had a decisive impact on cultural change in Nahua society. As outlined in the conclusion to James Lockhart's seminal work on the Nahua, "the impact of a few thousand Spaniards among millions of Indians was inevitably heightened as the numbers of the Nahuas fell to half, then a quarter, then less than that."<sup>13</sup> Lockhart established three stages of cultural and linguistic change in the colonial period. The first stage lasted from the first epidemic during the conquest until 1545, in which Nahuas adapted to colonial systems of rule and adopted few Spanish-language loanwords into Nahuatl. During the first stage, Nahuas utilized their own language to express words for new objects, such as candles and cucumbers, and for new phenomena, such as surgeons or pirates.<sup>14</sup> A second stage, characterized by the adoption of many Spanish nouns, signaled broader cultural contact between Nahuas and Spanish-speakers. Following this logic, the depopulation of indigenous communities after 1545 debilitated indigenous traditions and accelerated the adoption of Spanish language and practices. Yet even during this period of widespread adoption of Spanish nouns, Lockhart demonstrated that there was no common loanword for disease.<sup>15</sup> Nahuas continued to use *cocoliztli*, among

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<sup>13</sup>James Lockhart, *Nahuas After the Conquest: A Social and Cultural History of the Indians of Central Mexico, Sixteenth through Eighteenth Centuries*. Palo Alto: Stanford University Press, 1992, 433.

<sup>14</sup> Lockhart, *Nahuas*, 266.

<sup>15</sup> *Ibid*, 291, see Table 7.14.

other Nahuatl terms, to refer to epidemics, a signal of the unchanged indigenous conceptualization of illness and health. It was only during the third stage, beginning in 1620 and becoming widespread by 1650, that Nahuas began to use Spanish terms for disease, but in a way that did not replace *cocoliztli*. In fact, Spaniards adopted the term *cocoliztle* in Mexican Spanish, assigning a final "e" to the term as they did with most loanwords adopted from Nahuatl.

Although this work focuses on only three major periods of epidemic disease, it should be noted that pestilential illnesses occurred with frequency in different parts of New Spain throughout the colonial period, into the nineteenth century.<sup>16</sup>

## **Methods**

My research examines Nahuatl- and Spanish-language sources and images to recover Nahua perspectives of the epidemics that transformed indigenous culture and society in the colonial period. The ramifications of the loss of life and rapid loss of knowledge continued well beyond the sixteenth century. Colonial societies that did not sustain such population losses, such as New Zealand or India, did not face the twin devastation of the forfeiture of political power and loss of cultural traditions through the deaths of elders, often the guardians of such traditions. And yet in the face of cultural devastation, Nahuas continued to write many types of texts, and to record their histories.

Nahua interpretations of the epidemics are elusive because they often appear indirectly in the texts. Lockhart found evidence of the impact of epidemics in records that documented short dynastic reigns and the rapid succession of local governors due to premature death. Evidence of changes in architecture suggest fewer people, and the rapid bequest of the same landholdings in

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<sup>16</sup> Peter Gerhard, *Guide to the Historical Geography of New Spain*. Cambridge: Cambridge University Press, 1972, 23, Gerhard used the *Relaciones Geograficas* to find 34 periods of pestilential disease from 1520 to 1798.

last wills and testaments reflects a quick turnover. Yet these facts do little to illuminate how Nahuas understood the diseases. In the case of another indigenous society, Kevin Terraciano, in his seminal work on the Mixtec people of south-western Mexico, states that "rapid and sustained population loss was surely a major shock, and yet it is mentioned only indirectly in the record."<sup>17</sup> To understand what appears only indirectly in the historical record, I locate discussions of Nahua cultural concepts of sickness in writings by Nahuas.

This dissertation seeks to identify the cultural concepts of illness, or what the anthropologist Marshall Sahlins called the "meaningful schemes" of the Nahua, found in the histories of the conquest and writings of the early colonial period. According to Sahlins, "an event is not simply a phenomenal happening, even though as a phenomenon it has reasons and forces of its own, apart from any given symbolic scheme. An event becomes as it is interpreted."<sup>18</sup> I explore the relationship between events, the three epidemics, and the symbolic structures of illness and health, which I call cultural concepts of medical frameworks. The first two chapters explore *thick descriptions* of Nahua and Spanish concepts of illness and health.<sup>19</sup> Nahuas communicated their cultural concepts of disease, which were easily mistranslated and often misunderstood by Spaniards.

In colonial texts, Nahuas identified diseases using their own vocabulary, grounded in their medical frameworks. If our positivist scholarly impulse demands that illnesses be defined according to modern classifications, this dissertation resists the impulse. Whereas I have used

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<sup>17</sup> Kevin Terraciano, *The Mixtecs of Colonial Oaxaca Ñudzahui History, Sixteenth Through Eighteenth Centuries* Stanford: Stanford University Press, 2002, 11.

<sup>18</sup> Marshall Sahlins, *Islands of History*. Chicago: University of Chicago Press, 1985, xiv.

<sup>19</sup> Clifford Geertz, "Thick Description: Toward and Interpretative Theory of Culture," in *The Interpretation of Cultures*. New York: Basic Books, 1973, 3-30.

modern etiological agent names (smallpox) to label colonial sicknesses (*cocoliztli*, *viruela*) in this introduction, all other sections of the dissertation employ terminology used by Nahuas and Spaniards during the period studied. By relying primarily on sixteenth-century disease vocabulary, my study reveals how people conceived of illness in their own terms. This dissertation reflects their notions of illness, not our own. Colonial period texts recorded the events of the conquest and traditions of the Nahua people. Scholars rely on historical documents in native languages as an essential entry into the perspective of indigenous people. Only in Nahuatl-language studies can we glimpse pre-colonial concepts because, as Lockhart clarified, "only in the original language can the categories be detected, for in a translation one sees the categories of the translator's language instead."<sup>20</sup> Our modern systems of disease classification allow us to project notions of diagnosis and treatment. Instead, I evaluate how people wrote about and remembered a catastrophic loss of life in the early colonial period.

My research utilizes numerous visual texts, Mexican painted histories from the colonial period. Indigenous communities possessed long-standing traditions of recording histories in pictographic documents. They recorded images on stone, fig bark paper, or deer hides. The writing contained many layers of meaning, conveyed through and mnemonic devices that only a person with specialized knowledge could interpret. I consider images as explicit texts to read and to understand Nahua perspectives. Painted histories are essential to understand Nahua methods of recording history. In the field of pre-Columbian art history studies, Cecelia Klein's research reveals how conventions in sculpture and painted books are also found in colonial sources.<sup>21</sup> In

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<sup>20</sup> Lockhart, *Nahuas*, 8.

<sup>21</sup> Cecelia F. Klein, "Snares and Entrails: Mesoamerican Symbols of Sin and Punishment" *RES: Anthropology and Aesthetics*, No. 19/20 (1990/1991); 81-103; Ibid, "The Devin and the Skirt: An Iconographic Inquiry into the Pre-Hispanic Nature of the Tzitzimime" *Ancient Mesoamerica* 11(1) 2000, 1-16; Ibid, "A New Interpretation of the Aztec Statue Called Coatlicue, "Snakes-Her-Skirt" *Ethnohistory* 55:2 (Spring 2008) 231-250.

her pivotal study of Aztec and Mixtec codices, Elizabeth Hill Boone outlines the fundamental importance of visual histories to the people of Mesoamerica. Their texts follow the Nahuatl system of pictorial conventions, general laws of readings, and most contain glyphic and figural components.<sup>22</sup> These representational styles persisted through much of the colonial period and can be found in many sources, even those which contain alphabetic script and evidence of European art style. Therefore, images in Mesoamerica merit as much attention as alphabetic texts. Both Klein and Boone point the continuity between pre-Columbian and colonial conventions for the painting and recording of histories. They show that images offer different information from the alphabetic text, and therefore deserve recognition as separate texts. Following their research as a guide, I evaluate the meaning and importance of visual texts in conjunction with alphabetic writings.

## Sources

In an age characterized by widespread disease and depopulation, colonial authors recorded their views of health and illness in numerous texts. Indigenous *tlacuiloque* (singular *tlacuilo*) wrote and painted, many different types of pictorial and alphabetic texts, while Spaniards relied mainly on the alphabet to document what they witnessed. This dissertation examines multiple manuscripts associated with the magnificent *Florentine Codex* (1545-1579), the illustrated herbal called the *Codice Cruz Badiano* (1552), the painted histories of the *Codex Telleriano-Remensis* (1553-55), the *Tira de Tepechpan* (c.1550[3]-90), the *Codex Mexicanus* (c. 1550-70), the *Codex Aubin* (1576), and the *Relaciones Geograficas* (1577-86). These texts reveal

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<sup>22</sup> Elizabeth Hill Boone, *Stories in Red and Black: Pictorial Histories of the Aztecs and Mixtecs*. Austin: University of Texas Press, 2000, 10-17.

how Nahuas recorded and remembered the epidemics that affected each successive generation in the sixteenth century.

The *Florentine Codex* (FC) is the best source with which to investigate how Nahuas perceived of epidemics in the 16th century, because it describes the first major epidemic in 1520 and its production spans the years of second (1540s) and third (1570s). The manuscript consists of twelve books bound in three volumes that record a variety of information about Nahua culture, society, and history. Each of the books includes numerous images that contain indigenous modes of visual representation. The alphabetic text was written first in Nahuatl and then translated into Spanish. On some of the handwritten folios, the translation superficially summarizes and even omits information contained in the original Nahuatl.<sup>23</sup> Following Terraciano's idea of the *Florentine Codex* as three discrete texts, this dissertation examines the three texts of the manuscript: the Nahuatl-language text, the Spanish translation, and the images.<sup>24</sup> Grouped under the main title of the *Florentine Codex* are two additional drafts created before the final version. The first, dubbed the *Primeros Memoriales* (PM) appears as the first draft of what eventually became the FC. Nahua scholars working with Sahagún consulted with elders of Tepepolco to create the PM between 1559 and 1561. They wrote a second draft between 1561 and 1565 in consultation with elders from Tlatelolco--the Tlatelolco Manuscript. The visual text of the PM follows classical Nahua methods of recording history, but the style changed in later drafts. By the creation of the final draft in the 1570's, what we know as the FC, the visual text followed European conventions more closely but still contained many indigenous iconographic elements. Each of the three drafts--the FC, PM, and Tlatelolco manuscript--contain three texts: images,

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<sup>23</sup> Kevin Terraciano, "Three texts in one: Book XII of the Florentine Codex." *Ethnohistory*. 57, no. 1. (2010) 51-72.

<sup>24</sup> Ibid.



Nahuatl-language text, and Spanish language text. In total, the nine texts of the FC reveal a cohesive vision of how indigenous authors and elders interpreted health and disease, proceeding from an understanding of their cultural/medical frameworks.

The *Florentine Codex* was finished around the same time as another source, the *Relaciones Geográficas de Indias* (RG). The RG are a set of responses to a fifty-question survey sent by Philip II to the colonies, beginning in 1577. The RG required Spanish officials to obtain information about the geography and peoples of the empire. In New Spain, the Crown gathered information about the natural landscape and disease in the same question of the RG. The RG questionnaire includes topics such as political geography, indigenous governance, the population and health of indigenous communities, names of medicinal plants, etc. Colonial administrators asked Nahua elders to reflect on the consequences of disease in New Spain. Two questions from the RG ask indigenous people to recall the status of their communities before the arrival of Spaniards, and compare it to their current levels of health. Question five of the RG questionnaire asked about the numbers of inhabitants. It inquired “whether the district is inhabited by many or few Indians and whether in former times it had a greater or lesser population and the causes for the increase or diminution”<sup>25</sup> Another question inquired about the health of the communities. Question fifteen asked “whether they [indigenous people] used to live more or less healthy in ancient times than they do now and the reason for the change.”<sup>26</sup> The twelve responses from central Mexico, written mostly in Spanish but peppered with Nahuatl terms and names, throw light on how Nahuas and Spaniards interpreted the loss of life. The RG are valuable sources of information on the nature of health and curing in late sixteenth century Mexico. Yet their

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<sup>25</sup> René Acuña. *Relaciones Geográficas del siglo XVI*. México: Universidad Nacional Autónoma de México, 1985.

<sup>26</sup> Ibid.

production, so late in the colonial period and in the hands of Spanish officials, resulted in a few visual texts (*altepetl* maps) but no representations of illness or methods of healing.

At times, indigenous healers shared their medical knowledge and methods of healing with Colonial officials. The *Codice Cruz Badiano*, written in 1552 by indigenous physicians and scribes, documents indigenous plants and their medicinal uses.<sup>27</sup> Martín de la Cruz, a Nahuatl physician, composed an illustrated herbal in association with colleagues at the College of Santa Cruz, Tlatelolco. Intended for King Carlos I of Spain, the herbal was translated into Latin by another Indigenous scholar, Juan Badiano. Each page of the codex is illustrated with images of plants, whereas the text describes the therapeutic qualities of plants, animals, and minerals.

Several other visual sources reveal indigenous depictions of the sixteenth-century epidemics. Because Nahuas continued to produce pictorial texts throughout the sixteenth century, I utilize visual sources that address the epidemics. One such source, the *Codex Telleriano-Remensis* (TR) depicted the mid-century epidemic.<sup>28</sup> Although its precise origin is unknown, it is certain that the TR was produced in the mid-sixteenth century in the manner of traditional Nahuatl painted manuscripts. Eloise Quiñones Keber estimates that it was most likely created by one artist, though the notes in Spanish were written in several distinct hands. The TR displays a combination of text and images in a distinct indigenous style. It is unclear why the work was commissioned, where it was made, and when it was taken to Europe, according to Quiñones Keber.<sup>29</sup> Her studies suggest that it was made in Tlatelolco, was painted between 1553 and about 1555, and that the Spanish annotations were finalized by 1555. The content of the

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<sup>27</sup>Juan Badiano, Martín de la Cruz, *Codice de la Cruz-Badiano*. Carlos Viesca Treviño, ed. Consejo Nacional para la Cultura y las Artes and The National Institute of Anthropology and History, 2008.

<sup>28</sup> Eloise Quiñones Keber, *Codex Tellerianso-Remensis: Rituals, Divination, and History in a Pictorial Aztec Manuscript*. Austin: University of Texas Press, 1995, f. 46v, pp. 96 and 238.

<sup>29</sup> Quiñones Keber, *Telleriano-Remensis*, 115.

sections may have been copied from existing separate pictorial sources, or it may have been a copy of an existing manuscript. The TR depicts the second and perhaps the worst epidemic period in 1545.

Other sources, such as the *Tira de Tepechpan* and the *Codex Mexicanus*, show a visual version of the conquest. Nahua communities maintained visual annals of important events that affected their *altepetl*. The TR and *Codex Mexicanus* display different information about the conquest from the point of view of the author-artist or *tlacuilo*. *The Tira de Tepechpan* is a pictorial annal that arranges events along a linear time-line, revealing a local view from the perspective of Tepechpan, an *altepetl* in central Mexico. On the other side of Tepechpan's local time-line is one related to central Mexico, in general, focused on Mexico-Tenochtitlan, which runs from 1298 through 1596. The artist represented memorable events in pictorial form, painted on sheets of bark paper and glued together in a long and narrow strip (*tira*), with occasional explanatory Nahuatl-language glosses. *The Tira de Tepechpan* had no single period of creation; according to Lori Boornazian Diel, the work is "hybrid" in that "its contributors utilized the Mexica annals format and then Spanish alphabetic writing...they can be theorized in much the same way as language or alphabetic writing."<sup>30</sup> The Nahuatl-language text indicates that the intended audience was primarily indigenous, but as Diel acknowledges, the elites of Nahua society often commissioned such historical documents for multiple purposes. Her research uncovers four painters and two annotators. She supposes that the first painter died in 1553 and that the second painter abandoned "the indigenous tradition of identifying important historical figures with name glyphs."<sup>31</sup> The change of style, and later addition of annotations (estimated

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<sup>30</sup> Lori Boornazian Diel, *The Tira de Tepechpan: Negotiating Place under Aztec and Spanish Rule*. Austin: University of Texas Press, 2008, 8.

<sup>31</sup> Diel, *Tira*, 17.

between 1590 and 1650), points to a gradual shift in communication styles from the visual to the alphabetic.

The shift from pictorial to alphabetic writing is also evident in the *Codex Mexicanus*. This source was most likely created by an indigenous author during the latter part of the sixteenth century.<sup>32</sup> The *Codex Mexicanus* covers a broad period of time, from the Mexica migration story through the year 1590. The indigenous *tlacuiloque* offered a visual representation of the fall of Tenochtitlan and concurrent epidemic diseases. The artist's association of epidemic diseases with the defeat of the Mexica is telling. The overwhelming force of the epidemic seems to have contributed to a decline in the quality of the *Mexicanus* by the 1570's. A similar decline appears in the *Codex Aubin*.

The *Codex Aubin* is a pictorial and alphabetic history of the Nahua, from their migration from Aztlan through the early colonial period, ending in 1607. The unknown indigenous authors and painters likely created the images and text in 1576 during a period of major epidemic disease. The *tlacuiloque* illustrated a timeline with Nahua year signs. They depicted several natural disasters, including epidemic diseases. Each page of the codex contains indigenous methods to record time, persons, and places alongside Nahuatl-language text.<sup>33</sup> The general quality of the text declined in the late 1570's, when the epidemic of 1576 began. In addition to pictorial writings, many Nahuatl-language alphabetic texts recorded epidemics around the turn of the century.

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<sup>32</sup>*Codex Mexicanus* Library of Congress: World Digital Library, <https://www.wdl.org/en/item/15284/manifest>. fs. 76-77; D.G. Brinton, "The Boturini-Aubin-Goupil Collection of Mexicana," *Science* 21, no. 527 (March 10, 1893): 127-28.

<sup>33</sup> *Codex Aubin* [Código Aubin 1576, Código de 1576, Historia de la nación Mexicana, Histoire mexicaine] Manuscript in the British Museum, Ms, 31219; Elizabeth Hill Boone. *Stories in Red and Black: Pictorial Histories of the Aztecs and Mixtecs*. Austin: University of Texas Press, 2000, 199-205; Federico Navarrete. "The Path from Aztlan to Mexico: On Visual Narration in Mesoamerican Codices" *RES: Anthropology and Aesthetics* No. 37, Spring 2000, 31-48.

The Nahuatl-language record of yearly events called "annals" are valuable sources for information on disease. One source, written by Nahua author, Don Domingo de San Antón Muñón Chimalpahin Quauhtlehuanitzin, reveals his interpretation of the epidemics.<sup>34</sup> Chimalpahin compiled his annals in the early seventeenth century, but he covers events from a much earlier period up to the year 1615. His text show how discussions of disease evolved over the final decades of the sixteenth century and the first 15 years of the seventeenth. These sources provide the basis for my investigation into how indigenous communities remembered epidemics at the turn of the century.

This dissertation also examines how Spaniards, both those born in Spain and the Americas, understood disease in New Spain. Spanish perspectives on the first epidemic can be found in many Spanish chronicles, including the works of Motolinia, Francisco López de Gómara, and Bernal Díaz del Castillo, who all comment on the terrible consequences of epidemics in the 16th century.<sup>35</sup> Fray Bernardino de Sahagún wrote at length about the epidemics, sometimes inserting interpolations in the column intended for the Spanish translation of the Nahuatl text of the Florentine Codex. His notes, written near the end of the project and during his poor health from 1575 to 1578, reveal his good will towards the Nahua scholars and his fear that they might all die from the epidemics. In addition to the writings of Spanish soldiers, historians, and friars, the treatise of a Spanish doctor, Augustín Farfán (1579), sheds light on

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<sup>34</sup> Domingo de San Antón Muñón Chimalpahin Quauhtlehuanitzin, *Codex Chimalpahin* Arthur J.O. Anderson and Susan Schroeder, eds. and trans., Susan Schroeder, ed. Norman: University of Oklahoma Press, 1997.

<sup>35</sup> Fray Toribio de Benavente o Motolinia, *Memoriales o Libro de las Cosas de la Nueva España y de los Naturales de Ella* (Mexico: UNAM, 1971); Francisco López de Gómara, *La Historia General de las Indias*. ed. Pedro Robredo 1943; Bernal Díaz del Castillo, *Historia Verdadera de la Conquista de la Nueva España*. facsimile of 1939 edition.

western medical and cultural concepts of illness.<sup>36</sup> Also, a surgeon practicing in New Spain, Alonso López de Hinojosos, wrote a surgical treatise in 1578 that shows how a middling medical professional viewed the epidemics after working firsthand with patients who succumbed to the diseases.<sup>37</sup> These distinctly Spanish sources also reveal a great deal about how Europeans and Creoles in New Spain interpreted the epidemics. My dissertation on how Spaniards and Nahuas applied their respective cultural concepts to the conquest and the repeated epidemics of the sixteenth and early seventeenth centuries follows the thread of scholarship through three bodies of research.

### **Relevant Works**

My dissertation is informed by three separate bodies of secondary literature. The first is the work of ethnohistorians, ethnographers, and anthropologists whose research focuses on health and the body in Mesoamerica from pre-conquest times to the present day. I primarily consult the work of scholars who examined the production, the Nahuatl-language texts, and the images of the FC. Secondly, I locate my research in the history of science that focuses on indigenous knowledge as fundamental to the development of medical knowledge in the Americas. Finally, this research contributes to scholarship on the Atlantic world by examining one of the deadliest biological exchanges of disease from the perspective of those who suffered most from the illnesses brought by Europeans. My dissertation contributes to these three bodies

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<sup>36</sup> Augustin Farfán, *Tractado breve de anothomia y chirurgia: y de algvnas enfermedades que mas comunmente suelen hauer en esta Nueva España*. México: Casa de Antonio Rodrigo, 1579. See also *Tratado breve de medicina y de todas las enfermedades*. Mexico City: Geronymo Balli, 1592.

<sup>37</sup> Alonso López de Hinojosos, *Summa, y recopilacion de chirugia, con vn arte para sa[n]grar muy vtil y prouechosa. Compuesta por maestro Alonso Lopez, natural de los Inojosos. Chirujano y enfermero del Ospital de S. Ioseph de los Yndios, desta muy insigne Ciudad de Mexico. Dirigido al ill. y R. S. Don P. Moya de Contreras, Arçobispo de Mexico y del co[n]cejo de su magest*. Antonio Ricarco: 1578.

of literature through an in-depth understanding of Nahua concepts of illness and health, in comparison with Spanish writers and their texts on the epidemics in New Spain.

Scholars who have written on indigenous idea of health and disease in the pre-Conquest period tend to rely on colonial documents to extrapolate pre-conquest notions of the human body and cures. Their work suggests that purely indigenous modes of thinking about the body and healing can be disentangled from European influences on indigenous practices and beliefs. Authors such as Carlos Viesca Treviño and Alfredo López Austin focus on how Nahuas referred to the body and medicine in early colonial writings.<sup>38</sup> Viesca Treviño detailed the role of physicians in pre-Columbian society, and how their healing and spiritual powers made them important members of their communities. López Austin explores the Nahua cosmovision, or how Nahuas saw themselves and their bodies within a physical and spiritual world order. He examines the animistic entities that might be termed “souls”, and links them to specific body sites. Although no single source represents Nahua medical theory and classification, evidence from multiple sources indicate that disease was centered on the concept of disequilibrium related to the behavior of individuals and to the collective actions of the society. This disequilibrium resulted in what the Nahuas called *cocoliztli*.<sup>39</sup> Cocoliztli, or sickness, was attributed to a complex array of causes that López Austin separates into three categories: natural, magical, and supernatural.<sup>40</sup> However, many types of contagion do not fit neatly into one of these categories.

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<sup>38</sup> Carlos Viesca Treviño, *Medicina Prehispánica de México: El Conocimiento Médico de los Nahuas*. México, D.F.: Panorama Editorial, 1986; Alfredo López Austin, *Cuerpo Humano e Ideología: Las Concepciones de los Antiguos Nahuas*. Vols. 1 and 2. México, D.F.: UNAM, 1980.

<sup>39</sup> Alonso de Molina, *Vocabulario en Lengua Castellana y Mexicana: y Mexicana y Castellana*. México, D.F.: Porrúa, 2008 [1555] 23v.

<sup>40</sup>López Austin. *Cuerpo Humano*, 197.

Later scholarship on colonial-era documents do not attribute disease to one single factor, but rather to multiple causes that include natural and magical factors.

Scholarship based on colonial texts has focused attention on the ways that Nahuas and Spaniards described the causes of illness. In her recent article, Amara Solari analyzes the rhetoric of disease and its connection to traditional indigenous religion in Spanish-language texts. She concludes that in texts from Mexico City and Yucatán “epidemic disease and ongoing idolatries—appear to have operated in a conceptual sphere that conflated the two distinct phenomena.”<sup>41</sup> Her work also highlights an important indigenous concept, the polluting nature of stench and its ability to spread disease. The natural and magical causes of disease and poor health can be found in the excellent scholarship of Louise M. Burkhart. For the Nahuas, natural elements, such as dirt or dust, were connected to the health of the individual and the overall wellbeing of the community. Burkhart applies Mary Douglas’ work on cultural taboos of purity and pollution to her study of Nahua dialogues with priests in the sixteenth century. Her research is indispensable to understanding the moral and physical implications of disease in Nahua society. In *The Slippery Earth*, Burkhart first draws attention to the negative behavior and polluting objects associated with the *tlazolli* complex.<sup>42</sup> Yet Burkhart clearly distinguishes this moral/cleanliness complex from any Christian moral education, and demonstrates *tlazolli* to be a uniquely Nahua cultural concept. In another essay on the meaning of dirt in Nahua society, Burkhart uses a variety of colonial Nahuatl-language sources to show how Nahua women’s

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<sup>41</sup> Amara Solari, “The ‘Contagious Stench’ of Idolatry: The Rhetoric of Disease and Sacrilegious Acts in Colonial New Spain” *Hispanic American Historical Review* 96:3 (2016) 509.

<sup>42</sup> Louise M Burkhart, *The Slippery Earth: Nahua-Christian Moral Dialogue in Sixteenth-Century Mexico*. Tucson: University of Arizona Press, 1989, 89.



duties of sweeping defended the home against intrusion and contagion.<sup>43</sup> Fending off contagion, according to Nahua sources, required a daily struggle against filth, but also represented a larger battle against social disequilibrium, the harbinger of disease.

Scholars find similar concepts among modern-day Nahua communities in their field research. Several fairly recent ethnographies examine how people view health and illness in indigenous communities of contemporary Mexico. Alan Sandstrom examines the importance of rituals to protect against the spirits of filth, which can decrease the levels of soul within a person in the Nahuatl-speaking communities of the Huasteca in Veracruz. His research on Nahua religious and medical practices confirms that Nahuas continue to believe that disruptive human actions are transformed into agents of disease, which appear in the guise of attacking wind spirits. Only through ritual and offerings are humans able to restore equilibrium to themselves and their communities.<sup>44</sup> In her field work centered in Hueyapan, Morelos, Laurencia Alvarez Heydenreich, finds evidence of the contaminating nature of winds or *aires*. These aires “can emanate from trash heaps...they can be sources of malignant spirits.”<sup>45</sup> Similar concepts about sudden fright, or *susto*, according to Laura Elena Romero López, are found in Nahua communities of Tlacotepec de Díaz in Puebla. She observed that “disease is never a coincidence; its existence is notice of social disorder, of interpersonal conflict, of transgressions, and interaction with another world.”<sup>46</sup> In their collection on colonial and modern Mesoamerican

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<sup>43</sup> Louise M. Burkhart, "Mexica Women on the Home Front: Housework and Religion in Aztec Mexico." in *Indian Women of Early Mexico*. Susan Schroeder, Stephanie Wood, and Robert Stephen Haskett, eds. Norman: University of Oklahoma Press, 1997.

<sup>44</sup> Alan R. Sandstrom, *Corn is Our Blood: Culture and Ethnic Identity in Contemporary Aztec Indian Village*. Norman: University of Oklahoma Press, 1991.

<sup>45</sup> Laurencia Alvarez Heydenreich, *La Enfermedad y la Cosmovisión en Hueyapan, Morelos*. México, D.F.: Instituto Nacional Indigenista, 1987. 126.

<sup>46</sup> Laura Elena Romero López. *Cosmovisión, Cuerpo y Enfermedad: el Espanto entre los Nahuas de Tlacotepec de Díaz, Puebla*. México, D.F.: Instituto Nacional de Antropología e Historia, 2006, 155-156.

healers, Brad R. Huber and Sandstrom present essays that address a range of topics, from curers in New Spain to the training of indigenous midwives in modern-day border regions of Mexico and the United States.<sup>47</sup> The essays explore the blurred boundary between the secular and sacred in Mesoamerican ideology. Healers routinely combine spiritual and physical remedies because they consider the causes of the illnesses to be mixed, or one and the same. The intertwined nature of the physical and spiritual realms in Nahuatl thought is corroborated in historical studies of Nahuatl-language documents. The main Nahuatl text for my research is the FC, but I rely on the research of many other scholars.

Investigators have begun only recently to access the ethnographic information available in the Nahuatl-language text of the FC, thanks to the translation efforts of multiple scholars. Arthur Anderson and Charles Dibble began their English-language translation of the Nahuatl in 1950 and completed the project in 1982.<sup>48</sup> Their study includes valuable essays on the origins and history of the FC.<sup>49</sup> Previously, Ángel María Garibay and Jay I. Kislak reprinted only the Spanish-language column in their 1956 edition of the FC, which they titled the *Historia general de las cosas de Nueva España*.<sup>50</sup> Anderson and Dibble took a giant step towards understanding many of the original concepts that are embedded in the language by translating the original Nahuatl. Lockhart provided the next step to understanding the complex nature of the text with his publication of a collection of indigenous language sources on the conquest of Mexico in *We*

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<sup>47</sup> *Mesoamerican Healers*. Brad R. Huber and Alan R. Sandstrom, eds. Austin: University of Texas Press, 2001.

<sup>48</sup> Bernardino de Sahagún, *Florentine Codex: General History of the Things of New Spain*. Arthur J. O Anderson, and Charles E Dibble, trans and eds. Santa Fe, N.M.; Salt Lake City, Utah: University of Utah, 1985.

<sup>49</sup> *Ibid* (1975) Vol. 1.

<sup>50</sup> Bernardino de Sahagún, *Historia General de las Cosas de Nueva España*. Angel María Garibay K., and Jay I. Kislak, eds. México: Porrúa, 1956.

*People Here*.<sup>51</sup> The book presented the Nahuatl and the Spanish text of Book XII side by side, with translations of both to allow for a fuller understanding of the difference between the two texts of the FC. Kevin Terraciano argues that the three sets of information, the two columns of alphabetic text and the illustrations, are three separate texts on one page, each at times offering different information.<sup>52</sup> My scholarship builds on this scholarship by locating cultural concepts embedded in the language of the FC and comparing them to ethnographic descriptions and explanations of the same concepts, revealing many continuities and using multiple sources to illuminate cultural beliefs and practices, past and present. Of course, Sahagún was in many ways the first ethnographer in Mexico.

One of the first publications on the work of Sahagún appeared in 1974, titled *Sixteenth Century Mexico: The Work of Sahagún*.<sup>53</sup> This anthology, edited by Munro S. Edmonson, contains notable essays from Alfredo López Austin on the research method employed by Sahagún and potential sources for the study of Nahuatl medicine.<sup>54</sup> Another collection edited by J. Jorge Klor de Alva, H. B. Nicholson, and Eloise Quiñones Keber, published in 1988, studies the work of Sahagún as an ethnographer and examines his writings as linguistic and lexical sources.<sup>55</sup> Another volume of essays on Sahagún celebrated the five hundredth anniversary of the

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<sup>51</sup> Bernardino de Sahagún and James Lockhart, *We People Here: Nahuatl Accounts of the Conquest of Mexico*. Berkeley: University of California Press, 1993.

<sup>52</sup> Terraciano “Three Texts” 51–72.

<sup>53</sup> *Sixteenth-Century Mexico: The Work of Sahagún*. Munro Edmonson, ed. Albuquerque: University of New Mexico Press, 1974.

<sup>54</sup> Alfredo López Austin, “The Research Method of Fray Bernardino de Sahagún: The Questionnaires,” and “Sahagún’s Work and the Medicine of the Ancient Nahuas: Possibilities for Study,” in *Sixteenth-Century Mexico*. Edmonson, 1974.

<sup>55</sup> *The Work of Bernardino de Sahagún: Pioneer Ethnographer of Sixteenth-Century Aztec Mexico*. Klor de Alva, José Jorge, H. B. Nicholson, Eloise Quiñones Keber Albany: Institute for Mesoamerican Studies, University at Albany, State University of New York, 1988.

birth of Sahagún in 1999.<sup>56</sup> Scholars who participated in two colloquia at UNAM published their findings on the organization and translation of Sahagún's works.<sup>57</sup> Pilar Máynez and José Rubén Galván explain their methods in translating the Nahuatl of the FC into Spanish.<sup>58</sup> These works focus almost exclusively on the alphabetic text of the FC.<sup>59</sup>

In contrast, surprisingly few scholars have focused on the images of the FC. This neglect may be attributed to the fact that the images were considered too Europeanized in style. Donald Robertson, in his famous *Mexican Manuscript Painting of the Early Colonial Period* praised the illustrators of the FC for their mastery of linear perspective, an aspect of European art style that was acquired by the artists of the manuscript.<sup>60</sup> Robertson's work follows a traditional visual analysis that focuses on the figural and compositional styles of the paintings. In a collection of essays on the Sahaguntine corpus, Ellen Taylor Baird explores the inclusion of European styles and motifs.<sup>61</sup> A second essay in the collection on images from Jeanette Favrot Peterson focuses

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<sup>56</sup> John Frederick Schwaller. *Sahagún at 500: Essays on the Quincentenary of the Birth of Fray Bernardino de Sahagún*. Berkeley, Calif.: Academy of American Franciscan History, 2003.

<sup>57</sup> José Rubén Romero Galván, Pilar Máynez. *El Universo de Sahagún, Pasado y Presente: Coloquio 2005*. Mexico: Universidad Nacional Autónoma de México, Instituto de Investigaciones Históricas, 2007; José Rubén Romero Galván, Pilar Máynez *Segundo Coloquio El Universo de Sahagún: Pasado y Presente, 2008*. México: Universidad Nacional Autónoma de México: Instituto de Investigaciones Bibliográficas: Instituto de Investigaciones Históricas, 2011.

<sup>58</sup> Pilar Máynez and José Rubén Galván, "El Códice Florentino. Su transcripción y traducción" in Galván, Máynez, *Coloquio 2005*; see also Pilar Máynez "Problemas de traducción en el Libro del Arte Adivinatoria" Galván, Máynez *Segundo Coloquio, 2008*.

<sup>59</sup> Salvador Reyes Equiguas, "Las Representaciones de los Seres Vivos en el Códice Florentino y Otras Obras Españoles de su época" in Galván, Máynez *Segundo Coloquio, 2008* Patrick Johansson K. and Guilhem Olivier contribute essays on the proverbs and models for writing on animals in the FC, respectively. One essay from Salvador Reyes Equiguas explores representations of nature in the FC and the European models for them

<sup>60</sup> Donald Robertson, *Mexican Manuscript Painting of the Early Colonial Period*. Norman: University of Oklahoma Press, 1994.

<sup>61</sup> Ellen Taylor Baird, "The Artists of Sahagún's *Primeros Memoriales*: A Question of Identity." in *The Work of Bernardino de Sahagún*, Klor de Alva, Nicholson, Quiñones Keber eds., 1988.

on the training of the indigenous scribe-painter or *tlacuilo*.<sup>62</sup> Although Peterson highlights the involvement of the indigenous *tlacuilo*, she finds that the images of the artists/writers followed the alphabetic text, unlike the indigenous tradition in which the image constitutes a separate text. Her work concludes that the creators followed mainly European methods and prototypes.

A later collection of essays, published in 2003, delves further into the issues of indigenous and European artistic influences. Ellen T. Baird draws attention to the *tlacuiloque* use of classical and biblical allusions as a strategy to gain favor from the Spanish Crown for the project of the FC. In another essay, Elizabeth Hill Boone highlights the blend of indigenous and European graphic systems.<sup>63</sup> Pablo Escalante calls the new form *hypercorrection* in that the image has a forced emphasis made by “someone whose natural form of expression is different; hypercorrection expresses the wish to change in someone who has not yet, however, interiorized this change.”<sup>64</sup> He uses the term to refer to the replacement of Mesoamerican motifs with European ones, a conversion that ultimately resulted in the Christianization of the Indian world. Diana Magaloni Kerpel echoes this sentiment by arguing that the images of Moteuczoma in Book XII transformed him into another Christ. Throughout her research she relies heavily on European exemplars, such as Biblical and humanist models, to show the European elements of the images.<sup>65</sup> José Luis Martínez points to the importance of both European Renaissance styles

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<sup>62</sup> Jeanette Favrot Peterson, “The *Florentine Codex* Imagery and the Colonial *Tlacuilo*” in *The Work of Bernardino de Sahagún*, in Klor de Alva, Nicholson, Quiñones Keber eds., 1988.

<sup>63</sup> Elizabeth Hill Boone, “The Multilingual Bivisual World of Sahagún’s Mexico.” in *Sahagún at 500*, Schwaller, 2003.

<sup>64</sup> Pablo Escalante Gonzalbo, “The Painters of Sahagún’s Manuscripts: Mediators Between Two Worlds.” in *Sahagún at 500*, Schwaller, 2003. 171.

<sup>65</sup> Diana Magaloni Kerpel, *Images of the Beginning: The Painted Story of the Conquest of Mexico in Book XII of the Florentine Codex*, Ph.D diss. 2004.

and pre-Hispanic elements in the images.<sup>66</sup> These scholars struggle to balance the goals of the *tlacuiloque* and the European models forced upon them.

In her consideration of the balance between indigenous and European influences, Quiñones Keber evaluates the images of the FC as a product of European and indigenous modes of communication.<sup>67</sup> She gives equal attention to the artistic training and memories of the artists in the manuscripts they created. In a later, more detailed study, Quiñones Keber reveals that many of the artists were conversant in Pre-Hispanic visual forms of representing information. She notes that some FC artists were “more than acculturated copyists and sometimes produced acceptable, even more correct, variations and deviations.”<sup>68</sup> Magaloni Kerpel contributed to a collection of essays entitled *Color Between Two Worlds*, in which she shows how artists used paints and pigments selectively to convey meaning through the images.<sup>69</sup> This new focus on the material nature of the FC will certainly lead to further insight on the construction of the physical text, but does little to connect the images to the alphabetic text. Boone insisted that even after three generations of living under Spanish rule, “the Nahuas continued to think in visual terms and to express ideas pictorially.”<sup>70</sup> In a similar manner, Peterson acknowledges that the images

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<sup>66</sup> José Luis Martínez, *El “Codice Florentino” y la “Historia General de Sahagún”* Mexico: Archivo General de la Nación, 1982.

<sup>67</sup> Eloise Quiñones Keber. “Reading Images: The Making and Meaning of the Sahaguntine Illustrations.” in *The Work of Bernardino de Sahagún*, Klor de Alva, Nicholson, Quiñones Keber, 1988.

<sup>68</sup> Eloise Quiñones Keber, “Deity Images and Texts in the *Primeros Memoriales* and *Florentine Codex*. in *The Work of Bernardino de Sahagún*, Klor de Alva, Nicholson, Quiñones Keber, 1988, 269.

<sup>69</sup> Diana Magaloni Kerpel, “Painters of the New World: The Process of Making the *Florentine Codex*” Peiro Baglioni, Rodrico Giorgi, Marcia Carolina Arroyo, David Chelazzi, Francesca Ridi, and Diana Magaloni Kerpel “On the Nature of the Pigments of the *General History of the Things of New Spain: The Florentine Codex*”; Salvador Reyes Equiguas “Plants and Colors in the *Florentine Codex*” in *Colors Between Two Worlds: The Florentine Codex of Bernardino de Sahagún*. Gerhard Wolf, Joseph Connors, and Louis Alexander Waldman, eds. Cambridge: Harvard University Press, 2011.

<sup>70</sup> Elizabeth Boone, “Pictorial Documents and Visual Thinking in Post conquest Mexico.” *Native Traditions in the Postconquest World*. Elizabeth Boone, Tom Cummins, eds. Washington D.C.: Dumbarton Oaks: 1998, 158.

were indeed a new hybrid product of two traditions. She cautions that reading the images as a battle between indigenous and European modes of visual expression sets up false dichotomies, and claims that Nahua artists were well-versed in European representations but chose to use them selectively. Her approach anticipates the will and desire of the indigenous *tlacuilo*, while considering both indigenous and European influences. It is useful to evaluate the exchange of information across the Atlantic that also involved many groups of people and produced multivalent texts. Much of the scholarship on the medical knowledge of the Atlantic world used images as evidence to understand how people in the sixteenth and seventeenth centuries viewed humans and the natural world.

European scholars in the sixteenth and seventeenth centuries attempted to understand the new world by drawing and categorizing new phenomena in the form of treatises or encyclopedias. In the sixteenth century, Spain occupied a central role in the exchange and production of scientific knowledge in the Americas and the Iberian Peninsula. The creation of the FC was one such manuscript, but it was written primarily by Nahua scholars. Even the fact-finding mission of the RG inevitably relied on indigenous understandings of the natural world and the nature of illness. The importance of the RG as a source for European science and indigenous perspectives appears in a recent essay by Barry L. Isaac.<sup>71</sup> José Pardo-Tomás uses the RG texts to explain mortalities in New Spain.<sup>72</sup> My research contributes to the history of science in the Spanish Empire by acknowledging the importance of scientific expeditions, but with a new

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<sup>71</sup> Barry L. Isaac, "Witness to Demographic Catastrophe: Indigenous Testimony in the Relaciones Geográficas of 1577-86 for Central Mexico" *Ethnohistory* 62:2 (April 2015)

<sup>72</sup> José Pardo-Tomás, "Antiguamente vivían más sanos que ahora": Explanations of Native Mortality in the Relaciones Geográficas de Indias" in *Medical Cultures of the Early Modern Spanish Empire* John Slater, et. al. eds. Burlington VT.: Ashgate, 2014.

focus on indigenous scholars, elders, and healers as creators and recorders of knowledge.<sup>73</sup>

Many scholars approach texts written in the sixteenth century from the medical perspective of Europeans, focusing on works such as that of the sixteenth-century naturalist of New Spain, Francisco Hernández de Toledo.<sup>74</sup> The history of colonial botany is a relatively new development in the history of science. Londa Schiebinger explores the exploitative policies of colonial powers and their veritable monopoly on natural knowledge extracted from indigenous people. Intent on defending what they view as Spanish medical knowledge, Antonio Barrera and Jorge Cañizares-Esguerra challenge the notion that Spain and the exploration of its colonies lacked scientific rigor and was therefore a backward nation that lagged behind the imminent (northern) European Enlightenment. Barrera contends that Spanish merchants, settlers, artisans, and entrepreneurs were forced to rely on first-hand experiences of nature due to the novelty of the flora and fauna of New Spain. Cañizares-Esguerra demonstrates how Spaniards and Creoles abandoned the notion of classical texts as the only source of knowledge in the face of new realities. He shows how American-born Spaniards or Creoles used the proof of new constellations, such as the Southern Cross, to develop a “patriotic astrology.” In this work and much of the new research on science in the Iberian Empires, however, indigenous people are passive recipients of the scientific knowledge “created” by Europeans. Even Alix Cooper’s *Inventing the Indigenous*,

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<sup>73</sup> Londa Schiebinger, *Plants and Empire: Colonial Bioprospecting in the Atlantic World* I. Cambridge: Harvard University Press, 2004; Antonio Barrera. *Experiencing Nature: The Spanish American Empire and the Early Scientific Revolution*. Austin: University of Texas Press, 2006; Jorge Cañizares-Esguerra. *Nature, Empire, and Nation: Explorations of the History of Science in the Iberian World*. Stanford: Stanford University Press, 2006; Xavier Lozoya. “Natural History and Herbal Medicine in Sixteenth-century America” in Juan Saldaña. *Science in Latin America: A History*. Austin: University of Texas Press, 2006.

<sup>74</sup> Maximino Martínez, *Las plantas medicinales de México*. Mexico City: Ediciones Botas 1989; Germán Somolinos d’Ardois and Francisco Hernández, *El doctor Francisco Hernández: Y la primera expedición científica en América*. Mexico City: Secretaria de Educación Pública, 1971.



despite its title, focuses on Europeans as the sole producers of knowledge, with only a passing interest in New World curiosities.<sup>75</sup>

More recent scholarship from Paula De Vos and Martha Few focuses on late eighteenth-century science in the Spanish Enlightenment, but introduces indigenous actors.<sup>76</sup> De Vos explores how herbal knowledge in the form of new medicines and the commercial quest for spices were among the driving forces of Spanish exploration. They relied largely on the expertise of local (read indigenous) people. Martha Few reports that colonial-era medicine and practice responded to and relied on indigenous, gendered, religious, and hybrid methods of treatment.<sup>77</sup> I find that this analysis of the logistics and methods of collecting should be applied also to the early history of the Spanish Empire. As early as 1570, Spanish clerics and merchants were sending texts and specimens across the Atlantic. Europeans relied greatly on indigenous scientific and cultural knowledge and, despite the lack of indigenous names as authors of scientific tracts, new research should expand on their roles as producers of knowledge within a colonial system. The work of Daniela Bleichmar celebrates the fact that local people (indigenous) contributed to the construction of Atlantic world systems of knowledge.<sup>78</sup>

According to Bleichmar, the colonial system enabled several methods of exchange of scientific

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<sup>75</sup> Alix Cooper, *Inventing the Indigenous: Local Knowledge and Natural History in Early Modern Europe*. Cambridge; New York: Cambridge University Press, 2007.

<sup>76</sup> Paula De Vos, "The Art of Pharmacy in Seventeenth- and Eighteenth-Century Mexico" University of California, Berkeley, Phd diss, (2001); Ibid, "The Science of Spices: Empiricism and Economic Botany in the Early Spanish Empire" *Journal of World History*, Vol. 17, No. 4. (Dec. 2006); Ibid, "Natural History and the Pursuit of Empire in Eighteenth-Century Spain." *Eighteenth-Century Studies* 40, no. 2. (December 1, 2007)

<sup>77</sup> Martha Few, *Women Who Live Evil Lives: Gender, Religion, and the Politics of Power in Colonial Guatemala*. Austin: University of Texas Press, 2002; Ibid, *For All of Humanity: Mesoamerican and Colonial Medicine in Enlightenment Guatemala*. Tucson: The University of Arizona Press, 2015; Ibid, "Medical Mestizaje and the Politics of Pregnancy in Colonial Guatemala, 1660-1730" in *Science in the Spanish and Portuguese Empires, 1500-1800*. Daniela Bleichmar, ed. Stanford, Calif.: Stanford University Press, 2009.

<sup>78</sup> Daniela Bleichmar and Peter C. Mancall, *Collecting Across Cultures: Material Exchanges in the Early Modern Atlantic World*. Philadelphia: University of Pennsylvania Press, 2011; Daniela Bleichmar, *Visible Empire: Botanical Expeditions and Visual Culture in the Hispanic Enlightenment*. London: The University of Chicago Press, 2012.

knowledge.<sup>79</sup> Her work explores the scientific expeditions of Francisco Hernández sponsored by King Philip II. This expedition set out in 1569 to collect Indigenous scientific knowledge and bring it back to Europe. The authors and compilers were rarely naturalists or scientists; rather they were clerics, settlers, merchants, and indigenous elites.<sup>80</sup> This collaboration produced written records of scientific and botanical knowledge that were often intended for shipment to the Iberian Peninsula. Bleichmar describes the visual epistemology used by the Spanish Empire as “a way of knowing based on visibility, encompassing both observation and representation.”<sup>81</sup> Her focus on visual information is especially useful for my research, in which illustrations are treated as historical sources. Even more important for my argument, she acknowledges that even though the images under examination never achieved wide circulation in print, they are given importance through the labor-intensive process of creation. The labor-intensive process of creating the FC, and some of the more detailed RG reports, reflect the great importance of these texts to their authors and artists.

Finally, my dissertation contributes broadly to scholarship that examines the exchange of peoples, goods, and pathogens in the Atlantic world. The standard histories of the exchange of pathogens written by Alfred W. Crosby, Jared Diamond, Noble David Cook, Charles C. Mann, and J. R. McNeill rely on European texts to describe the devastation of disease.<sup>82</sup> Epidemics

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<sup>79</sup> Francisco Hernández, *The Mexican Treasury: The Writings of Dr. Francisco Hernández*. Simon Varey; Rafael Chabrán; Cynthia L. Chamberlin, eds. Stanrod: Stanford University Press, 2000; *Searching for the Secrets of Nature: The Life and Works of Dr. Francisco Hernández* by Simon Varey; Rafael Chabrán; Dora B. Weiner, eds. Stanford: Stanford University Press, 2000.

<sup>80</sup> Daniela Bleichmar, “Books, Bodies, and Fields: Sixteenth-Century Transatlantic Encounters with New World *Materia Medica*” in *Colonial Botany*, Londa Schiebinger and Claudia Swan, eds. Philadelphia: University of Pennsylvania Press, 2005, 83.

<sup>81</sup> Daniela Bleichmar, *Visible Empire: Botanical Expeditions and Visual Culture in the Hispanic Enlightenment*. Chicago; London: The University of Chicago Press, 2012, 8.

<sup>82</sup> Alfred W. Crosby, *The Columbian Exchange: Biological and Cultural Consequences of 1492*. Westport, Conn: Praeger, 1972; Jared Diamond, *Guns, Germs, and Steel: The Fates of Human Societies*. New York: W. W. Norton & Company, 1997; Noble David Cook, *Born to Die: Disease and New World Conquest, 1492–1650*. Cambridge:

affected indigenous people in the extended Spanish and British Atlantic World.<sup>83</sup> Excellent studies of the Black Atlantic World abound.<sup>84</sup> In an inquiry on the label of “Red Atlantic,” Jace Weaver emphasizes the importance of North American Indian interactions with Europeans. Weaver forces Atlanticists to acknowledge that “from the earliest moments of European/ Native contact in the Americas to 1800 and beyond, Indians, far from being marginal to the Atlantic experience, were, in fact, as central as Africans. Native resources, ideas, and peoples themselves traveled the Atlantic with regularity and became among the most basic defining components of Atlantic cultural exchange.”<sup>85</sup> Following Weaver’s lead, I seek to recover Native American voices from Mesoamerica on the epidemic diseases that made European conquest possible. Disease was as common as warfare, migration, and trade across the Atlantic.<sup>86</sup> I focus on how

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Cambridge University Press, 1998; Charles C. Mann, *1491: New Revelations of the Americas before Columbus*. New York: Vintage Books, 2005; J. R. McNeill, *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620–1914*. Cambridge: Cambridge University Press, 2010.

<sup>83</sup> *The British Atlantic World, 1500-1800*. David Armitage and Michael J. Braddick eds. Basingstoke and New York: Palgrave, 2002; Anthony Pagden, *Spanish Imperialism and the Political Imagination: Studies in European and Spanish-American Social and Political Theory, 1513-1830*. New Haven, Conn.: Yale University Press, 1990; D. A. Brading, *The First America: The Spanish Monarchy, Creole Patriots, and the Liberal State 1492-1867*. Cambridge: Cambridge University Press, 1991; *The Atlantic World in the Age of Empire* Thomas Benjamin, Timothy Hall, and David Rutherford, eds. Boston: Houghton Mifflin Company, 2001; Jorge Cañizares-Esguerra, *How to Write the History of the New World: Historiographies, Epistemologies, and Identities in the Eighteenth-Century Atlantic World*. Stanford, Calif.: Stanford University Press, 2001; *The Age of Revolutions in Global Context, c. 1760–1840* Armitage and Sanjay Subrahmanyam, eds., New York, 2010.

<sup>84</sup> W. E. Du Bois, *The Suppression of the African Slave-Trade to the United States of America, 1638-1870*. New York, 1896; C. L. R. James, *The Black Jacobins: Toussaint L'Ouverture and the San Domingo Revolution*. London, 1938; Eric Williams, *Capitalism and Slavery*. London: 1944; Paul Gilroy *The Black Atlantic: Modernity and Double-Consciousness* Cambridge, MA: Harvard University Press, 1993; Trevor Burnard and Richard Follett “Caribbean Slavery, British Anti-Slavery, and the Cultural Politics of Venereal Disease.” *The Historical Journal* Vol. 55, No. 2 (June 2012); Matthew J. Clavin, *Aiming for Pensacola: Fugitive Slaves on the Atlantic and Southern Frontiers*. Cambridge, MA: Harvard University Press, 2015.

<sup>85</sup> Jace Weaver “The Red Atlantic: Transoceanic Cultural Exchanges” *American Indian Quarterly*, Vol. 35, No. 3 (Summer 2011) pp. 422; see also David Armitage, “The Red Atlantic,” *Reviews in American History* 29, no. 4 (2001): 479.

<sup>86</sup> *Disease, Medicine, and Empire: Perspectives on Western Medicine and the Experience of European Expansion* Roy MacLeod and Milton Lewis, eds., London, 1988; Sheldon Watts, *Epidemics and History: Disease, Power and Imperialism*. New Haven, Conn., 1997; Philip D. Curtin, *Disease and Empire: The Health of European Troops in*

Nahuas interpreted disease within the Atlantic context of disease exchanges.<sup>87</sup> To engage these issues, I examine how cultures on both sides of the Atlantic World thought and about sickness and health. My focus on sickness and health reveals conceptions of illness from the perspective of the sufferer.<sup>88</sup> I seek to bring a cultural dimension to the study of epidemics in the Atlantic World.

### **Chapter Organization**

The first two chapters of this dissertation examine the conceptual basis of health and sickness in Mesoamerica and Iberia, and the following two chapters locate those concepts in the written histories of the conquest and early colonial period. The first chapter analyzes the Nahuatl text of the FC for Nahua concepts of illness and health. It focuses on Nahua practices to ensure moral and physical cleanliness, such as sweeping and bathing. In addition to practices, it examines Nahua beliefs in the life force of breath or wind and the fright illness that affected the heart.

The second chapter presents Iberian cultural understandings of sickness and their Greco-Roman-Arabic origins. It explores ancient influences on Spanish physicians' writings about health and illness in the Americas. The writings of a doctor, Agustín Farfán, and the surgeon, López de Hinojosos, in particular, reveal how medical professionals trained in Spain proceeded in New Spain when confronted with epidemic diseases of epic proportions. I also examine the

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*the Conquest of Africa*. Cambridge, 1998; Elizabeth A. Fenn, *Pox Americana: The Great Smallpox Epidemic of 1775-82*. New York: Hill and Wang, 2001.

<sup>87</sup> David Armitage "Three Concepts of Atlantic History," in *The British Atlantic World, 1500-1800*, ed. David Armitage and Michael J. Braddick (Basingstoke, UK: Palgrave, 2002), 15.

<sup>88</sup> Roy Porter, "The Patient's View: Doing Medical History from Below," *Theory and Society* 14, no. 2 (March 1985): 175–98, 181. See also the work in Porter, ed., *Patients and Practitioners: Lay Perceptions of Medicine in Pre-Industrial Society*. Cambridge: Cambridge University Press, 1985.

writings of Sahagún and other Spanish chroniclers to explore the complex relationship between Christian ideology and actual practice in treating disease.

The third chapter, titled “Epidemic Invasions: Illness during First Contact and the Early Colonial Period,” examines the war in Mexico-Tenochtitlan (1519-1521) in terms of concepts of health, pollution and disease discussed in chapter one. This chapter also examines how the Nahua authors of the FC described and remembered the first epidemic outbreak of 1520. The chapter concludes with a close analysis of how the three drafts of the FC (1545-79) reveal the importance of communicating Nahua methods of identifying illness and treatments.

The fourth and final substantive chapter explores indigenous descriptions and memories of epidemics beyond the first encounter, analyzing a variety of pictorial and alphabetic sources, written in Nahuatl and Spanish, that address the period from 1535 to 1615. I examine dozens of reports of the *Relaciones Geográficas* for information on Nahua and Spanish perspectives on the major epidemics of 1545 and 1576. Whereas Nahuas associated epidemics with the arrival of Europeans, Spaniards tended to attribute the disease to God's will. Nahuas blamed their unhealthy status on colonial changes, such as changes in bathing habits, clothing, and work traditions. In keeping with their Hippocratic beliefs, Spaniards attributed the Indians' poor health to vapors, winds, rains, and the mountainous settlements of New Spain--not to mention their ancient religion. Chapter four concludes with the texts of the Nahua historian Chimalpahin, who chronicled the epidemics in central Mexico from 1577 to 1615.

A concluding chapter summarizes the main findings of the dissertation and places them in the context of several historiographies. I also indicate how modern Nahua cultural concepts of illness and health resonate with what I have found in the early colonial period, and the implications of these findings.



## **Chapter One: Filth and Purification: Nahua Concepts of Illness and Health**

### **Introduction**

#### **Cleanliness: Sweeping out Danger**

*The Broom as a Physical and Moral Weapon*

*Twisted and Straight Objects and Fates*

*Tlazolteotl: Goddess of Purity, Goddess of Filth*

*The Sweeping the Way Ceremony of Ochpaniztli*

#### **Good Health found in Divination and Day signs**

*The Good and the many Mediocre Day signs*

#### **Purification by Water: Healing Baths in Many Forms**

*Medicinal Plant Knowledge and Natural Soaps*

*Hierarchies of Purity: Those Who Bathe Others and those Who Are Bathed*

*A Sweat Bath for Every Ill*

*The Bath as a Tool to Influence Fate*

#### **Susto or Fright Illness**

*Remedies for Susto*

#### **Breath and Life**

*Winds in Nahua Culture*

### **Conclusion**

## Introduction

In the city of Tulum, a popular destination for the New Age set on the Riviera Maya of the Yucatan Peninsula, tourists flock to yoga retreats in search of enlightenment and healing. Alongside such therapies quietly persists an ancient tradition followed by indigenous people of the Americas that may appear to be less soothing to many westerners. The *temazcal* or sweat bath can be endured but is not always enjoyed. The custom varies but it frequently consists of heating a dome- or square-shaped stone structure herb-infused water on the baked rocks to create a steam-choked atmosphere while the bathers sit inside. Upon closing the entrance, the presiding authority often chants and performs a *limpia* or cleansing of the patients by brushing their entire bodies with bunches of herbs intending to cure them of troubles or illnesses. Once the door is closed the participants are not permitted to leave the stone bathhouse for the duration of the ceremony. In June of 2014, *CNN México* published an article that admonished those “susceptible to claustrophobia or skepticism to think twice” about participating in the ceremony.<sup>89</sup> Despite the arduous process of the sweat bath, people flock to it in search of its healing qualities. A former reporter for the *Los Angeles Times*, Daniel Hernandez, best summarized the practice in his 2011 account. Hernandez explains that the practice of the sweat bath is a recovered indigenous practice for leftist *indigenistas* coming from universities but “they still speak Spanish, not Nahuatl. They are not indigenous people in the way we understand indigenous people to be—those who speak native Mexican languages and who generally follow the customs of those fundamentally untouched by *mestizaje*, not postmodern participants from Mexico City on a

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<sup>89</sup> Savita Iyer Ahrestani, “La experiencia de sudar el 'odio' en un Temazcal en México: El baño de vapor se realiza con diversas hierbas mientras un chamán de la comunidad maya canta” *CNN México*. June 10, 2014. Sweat baths gained notoriety in the U.S. Press in 2009 when the ceremony was abused by an American self-help guru James Arthur Ray resulting in the deaths of three of his followers. See “Self-Help Author Imprisoned for Sweat Lodge Deaths Is Making a Comeback” by Matt Stroud. *Bloomberg Business* March 3, 2015.



weekend retreat.”<sup>90</sup> The sweat bath is just one of many pre-conquest indigenous healing methods found in Mexico today.

A curious aspect of the fascination with this type of cleansing is that it supports indigenous healers. In the Yucatan region, the people from local Mayan towns build and maintain *temazcal* facilities and through their connections with tourist services gain income from providing sweat-bath ceremonies for curious foreigners. The names for the sweat bath ceremony and bath house structure, the *temazcal* and the *temazcalli*, are not terms from a Mayan language but instead comes from Nahuatl, an indigenous language of central Mexico.<sup>91</sup> A sixteenth-century dictionary defines *temazcalli* as “a small house like a stove, where one can bath and sweat.”<sup>92</sup> The author of the dictionary, Franciscan Friar Alonso de Molina, compared the structure to an oven, a familiar object for a bread-nourished Spaniard. For the Nahua, the indigenous people who spoke the Nahuatl language, the structure and its associated ceremonies signified more than simply heating and hygiene.

Contemporary indigenous healers or *curanderos* in Mexico and the United States may recommend the sweat bath therapy for a variety of reasons. According to Alfonso J. Aparicio Mena the process of cleansing in the sweat bath “is not exclusively a medical practice, instead it is a method to return the person to a state of general well-being (an equilibrium with the natural-biological, the social-organizational, and the cultural-religious-ideological); that is, the ability to

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<sup>90</sup> Daniel Hernandez, *Down and Delirious in Mexico City: The Aztec Metropolis in the Twenty-First Century*. New York: Scribner, 2011, 184.

<sup>91</sup> Terms in Nahuatl are italicized at their first use but not thereafter.

<sup>92</sup> Fray Alonso de Molina, *Vocabulario en Lengua Castellana y Mexicana y Mexicana y Castellana*. México: Editorial Porrúa, 1571, sixth edition 2008. [second numeration] f. 97v

function in daily life.”<sup>93</sup> Working with Mixe and Chatino people in Oaxaca and Nahuatl-speakers in central Mexico, Aparicio Mena found that the concept of maintaining equilibrium defined the way many indigenous groups viewed health. Shared traditions such as the sweat bath and common worldviews on the nature of health reinforce the vitality of Pan-Mesoamerican healing traditions. Although these traditions can be found throughout Mexico today, the following chapter focuses on Nahua traditions from the 16th century to the present.

The Pan-Mesoamerican tradition of the steam bath or *temazcalli* exemplifies traditional methods to identify poor health and ways to treat illnesses. Nahua people interpreted health and illness according to their own cultural concepts that existed alongside and in conjunction with ideas brought by Spaniards. In the stressful interior of the modern-day steam bath, the ceremonial leader of the *temezcalli* uses a bunch of herbs to brush the participants' bodies. The bunch of herbs, or broom, and the power of the broom or brush to cleanse physical, moral, and spiritual spaces is the focus of the first section. The broom or brush exerted a cleansing force because it gathered polluting things such as dirt and dust. The Nahua also considered it an effective tool against filth because of the process of its construction. To make the broom a person wove together a loose tangle of dried straws, instilling order onto chaos. The cleansing of filth was not solely a domestic matter, filth influenced supernatural spheres as well. Specific gods and goddesses washed away physical and moral filth through personal interrogations and calendar ceremonies. Several ceremonies bestowed a person with their personal fate or *tonalli*. The following section explains the many indifferent predictions, neither good nor bad, for a person's fate. Mediocre expectations present an extensive gray area that the Nahua considered as

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<sup>93</sup> Alfonso J. Aparicio Mena, “La limpia en las etnomedicinas mesoamericanas” *Gazeta de Antropología*, 2009, 25 (1), Article 21, 4.

a normal part of life, an area quite foreign to friars who were obsessed with a rigid line between good and evil. The next section of this chapter explores the properties of the healing bath and its waters in Nahua culture. Nahuas considered baths with soap to be integral to healing ceremonies. They used their cleansing methods to improve the negative fates assigned to newborns. Nahuas viewed frightening experiences and bad smells as causes of illness, manifested in the notions of fright-illness or *susto* and winds. I apply Nahua concepts of illness and health to interpret Nahuatl-language histories of the Spanish-led invasion, and to investigate how Mesoamericans may have viewed the epidemics of the colonial period.

### **Cleanliness: Sweeping out Danger**

The Nahuatl-language text of the *Florentine Codex* (FC) tells us that good health was closely associated with cleanliness and purification. Modern readers will rightly associate these ideas with corporeal hygiene. Yet for the Nahua corporeal hygiene and moral decency were inextricably linked. The verb 'clean' or 'purify,' *chipaua*, was used both for sweeping the home and for removing filth associated with a person who committed bad deeds.<sup>94</sup> The Nahuatl word for filth, *tlazolli* or *tlaçulli*, was used for any dirty object as well as for dangerous acts such as adultery or trickery that created chaos in Nahua society.<sup>95</sup> Louise Burkhart's research on the Nahuatization of Christian concepts, in *Slippery Earth* concludes that "for the Nahua, the link between the moral and physical, normative and sensory, idea and emotion, was more direct than in Christian ideology."<sup>96</sup> Her scholarship follows the theoretical frameworks explained by Turner on the sensory poles of meaning and by Durkheim on the obligatory and favorable nature of

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<sup>94</sup> Molina, 2008 [1571]: 21r [second numeration].

<sup>95</sup> Molina, 2008 [1571]: 118r-120v [second numeration] *tlaçulli*.

<sup>96</sup> Burkhart, 1989: 101.

moral rules.<sup>97</sup> The work of Mary Douglas on ritual uncleanness is also useful for understanding Nahua categories of pure and impure. She writes that "dirt is essentially disorder...it exists in the eye of the beholder...eliminating it is not a negative movement, but a positive effort to organize the environment."<sup>98</sup> Nahua categories of dirt and cleanliness reveal efforts to sort out the environment and combat the dangerous forces of tlazolli as causes of sickness. Alan Sandstrom, an anthropologist who has worked in Nahua communities in the Huasteca region of Veracruz, observes that "Nahua beliefs about disease derive from their life situation and... cannot be understood apart from it."<sup>99</sup> Many beliefs observed today can be traced directly to the sixteenth century, when they were first recorded in alphabetic writing, or depicted in pictorial writings.

The "life situation" of the Nahua, as Sandstrom put it, their ordered environment, revolved around three main themes: cleanliness, healthiness, and purification. Nahuas living in the sixteenth century maintained their ideas about health and cleanliness alongside introduced European ideas. Burkhart writes that the Nahua preoccupation with cleanliness and filth is too common and appears in far too many sources "to be a product of Christian moral education."<sup>100</sup> Their ideas on cleanliness can be found in their focus on the broom as a physical and moral weapon. The broom not only cleansed the home but it also cleansed the body of impurities through ceremonial use. The broom also attracted and neutralized pollutants because it was made

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<sup>97</sup> Burkhart, 1989: 88; Victor Turner. *The Forest of Symbols: Aspects of Ndembu Ritual*. Ithaca: Cornell University Press, 1967, 28 and 54; Emile Durkheim. *Sociology and Philosophy*. D. F. Pocock, trans. Glencoe, Illinois: The Free Press, 1953, 36.

<sup>98</sup> Mary Douglas, *Purity and Danger: An Analysis of Concept of Pollution and Taboo*. London; New York: Routledge, 2005, 2.

<sup>99</sup> Alan R. Sandstrom, *The Image of Disease: Medical Practices of Nahua Indians of the Huasteca*. Monographs in Anthropology #3, University of Missouri, 1978, 28.

<sup>100</sup> Burkhart, 1989, 89

from the filthy material of tangled dry straw. Nahuas used brooms as cleansers in the home and in public ceremonies.

### *The Broom as a Physical and Moral Weapon*

One of the ways that Nahuas maintained spiritual and material cleanliness was by sweeping with a broom. Burkhart characterizes this duty as mainly the responsibility of women but acknowledges that both men and women swept.<sup>101</sup> My analysis shows that both men and women were expected to sweep and that it was a symbol of strength and defense in the home and on the battlefield. Burkhart identifies sweeping as the method to remove physical and spiritual pollution or tlazolli.<sup>102</sup> She writes that brooms removed tlazolli, but because they collect dust, cobwebs, and other impurities in the act of sweeping, they were also considered dangerous repositories of filth.<sup>103</sup> Brooms, or in plain terms, bundles of dried twisted grasses, were weapons against invasive forces. The Nahua considered the control of the powerful substance tlazolli through sweeping as "women's work" but Burkhart reminds us that "it cannot be assumed a priori that these activities were considered in any way trivial or marginal in relation to the male domain."<sup>104</sup> She shows that the Nahua conceptualized the domestic sphere in a complementary manner that symbolically and directly linked the fate of men on the battlefield to household work of women. The ritualized sweeping protected the home and its inhabitants.

The act of sweeping with a broom was a ritual of purification and an important element of offerings to the gods. Sacred buildings such as courts for the ritual ball game and temples

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<sup>101</sup> Louise Burkhart, "Mexica Women on the Home Front: Housework and Religion in Aztec Mexico" in *Indian Women of Early Mexico*. Susan Schroeder, Stephanie Wood, Robert Haskett, eds. Norman: University of Oklahoma Press, 1997: 34; Burkhart, 1989, 117.

<sup>102</sup> Burkhart, 1989: 87.

<sup>103</sup> Burkhart, 1989: 95.

<sup>104</sup> Burkhart, 1997: 26.

were swept before their use in ceremonial acts.<sup>105</sup> The authors of the FC state in Book II that children were obligated, whether male or female, to sweep their homes and courtyards.<sup>106</sup> Sweeping was a daily ritual that was carried out just before the dawn of each new day. Once the sweeping was done, people could lay down their offerings and take up their incense ladles before the gods. The FC emphasized the necessity of this task by using the phrase or "much did they constrain, much were constrained the children."<sup>107</sup> Sweeping was placed in the same section and therefore perhaps at the same level as all-night vigils, letting blood from ear lobes, and drawing straws through body parts to offer blood to deities. These sweeping practices were so vital that the scholars who illustrated the FC chose to depict these duties above all others (fig. 1).<sup>108</sup> The illustration shows a temple official or priest holding a bundle of grass, a broom, and gesturing to three younger students. One of the students is boy and points to the broom in his hand while two girls behind him appear attentive. One of the two girls is a younger one who gazes at the broom in her hand as an older girl behind her watches the temple priest. The image, depicting three brooms in the hands of young and older people, reaffirms not only the importance of sweeping as a duty but also the responsibility of both genders to safeguard cleanliness against impending disorder. Later in Book II of the FC, the sweeping of the temples is described as an offering and essential for the young priests within the temple or *calmecac*.<sup>109</sup> The brooms of dried grass or straw served to mitigate moral and physical filth.

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<sup>105</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VIII, f. 41v.

<sup>106</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VIII, f. 41v in *aço cihoa, anoço oqujchtin*.

<sup>107</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 123v *cenca qujnucuitlaviltiaia, cenca cujtlaviltioia*; Molina 2008 [1571]: 27v [second numeration] *cuitlauiltia*.

<sup>108</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 123v.

<sup>109</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 135v.

The fact that Nahua used straw in ceremonies and offerings reinforced the power and significance of brooms. One way to make offerings to the gods was by spreading out bed straw. The FC relates that it was necessary to pull up the straw from the earth, shake it out, and place it before the god. The text describes a similar ceremony when people followed the road to war. The gathering of grass along the road or during battle was a supplication made to the sun so that one would take captives.<sup>110</sup> The image that accompanies the text displays three warriors with shields on the bottom right, with their weapons raised for battle. They advance on their enemy, located on the bottom left, with the intent to take captives. Above these figures is a man holding an armful of grass or straw, offering it towards the sun. Small blades of the straw are strewn before the sun, located in the upper left (fig. 2).<sup>111</sup> This image illustrates the importance of straw in making offerings, and in taking captives on the battlefield.

Modern Nahua communities continue to use palm brooms as an integral part of curing ceremonies. Alan Sandstrom's ethnographic research in the 1970s and 80s demonstrates the duties of village healers using brooms in rituals (fig. 3).<sup>112</sup> Among the Nahua of the Huasteca in Veracruz, Sandstrom observed that "curing rituals are called *ochpantli* in Nahuatl, meaning 'sweeping' (as in 'sweep clean'), or *limpia* in Spanish, which means 'cleansing.'"<sup>113</sup> This apparent continuity of the use and meaning of brooms from the 16th century demonstrates their enduring role in the Nahua moral and physical realms.

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<sup>110</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 126v.

<sup>111</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 127r.

<sup>112</sup> Alan R. Sandstrom, *Corn is our Blood: Culture and Ethnic Identity in a Contemporary Aztec Indian Village*. Norman: University of Oklahoma Press, 1991: Plate 22.

<sup>113</sup> Sandstrom, 1991, 302. The shift from straw to palm broom may also be another indication of the Nahuatl use of traditional Christian materials for their own purposes.

The noun for broom, *tlachpanoni*, is derived from the verb to sweep, *tlachpana*.<sup>114</sup> The broom itself was made from dried grass or *zacatl* (*çacatl*). Molina lists a variety of uses for straw or *paja* apart from the general word. The *Vocabulario* lists straw as feed for animals, beds, housing materials, roof materials, including a smaller variety of other straw (*paja menuda*).<sup>115</sup> In the natural history section of the FC, there are forty-four different types of *zacatl*.<sup>116</sup> The text describes the characteristics of these plants, referring to some of their specific purposes. The Nahuatl-language column does describe certain grasses that were necessary to make adobe, others for medicinal purposes, and several types as mat-making materials.

The authors of the FC defined the term *zacatl* as the common name for grass, but they made an important distinction by noting "when dried."<sup>117</sup> A bundle of any type of grass could be dried and called *çacatl*. Yet Sahagún neglected to translate this plant entry. The artists make up for this lack of attention by filling the space where a translation would have been. These images literally take the place of the absent Spanish-language text. The image shows many blades of grass with roots sinking into the ground inside of a rectangular frame (fig. 4).<sup>118</sup> This framing and illustration of plants is a common technique throughout Book XI where a Spanish-language translation is conspicuously absent. The Spanish-language translators acknowledge this deficiency by stating "The herbs and flowers from here onward are of little importance."<sup>119</sup> It

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<sup>114</sup> Molina, 2008 [1571]: 117v [second numeration] *tlachpana, tlachpanoni*; Molina 2008 [1571]: 49r [second numeration] *izquitzli, izquizuia, izquitzli*.

<sup>115</sup> Molina, 2008 [1571]: 91v [first numeration].

<sup>116</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. XI, f. 182r-185r.

<sup>117</sup> Sahagún 1979, [1575-70]: vol. 3, bk. XI, f. 184r; Molina 2008 [1571]: 154r [second numeration] *vacqui*.

<sup>118</sup> Sahagún, 1979, [1575-70]: vol. 3, bk. XI, f. 184r.

<sup>119</sup> Sahagún, 1979, [1575-70]: vol. 3, bk. XI, f. 184v; "*Estas yervas y flores que de aquja delante se siguen son de poca ymportancia...*"



seems as if the Nahuatl authors also struggled to finish the section on grasses. Some grasses are simply named with spaces after the names where a Nahuatl-language description was to be added. Book XI is the largest and most richly illustrated book in the FC, proving the importance of specific plants and the natural environment, in general. Perhaps the fact that the book was completed second to last accounts for its unfinished state. Curiously, the authors do not name a specific plant broom-making grass, possibly because many different types of grass could be used to make a broom. Additional information in other Nahuatl-language dictionaries, found in the following section, tends to define brooms in terms of their twisted nature.

### *Twisted and Straight Objects and Fates*

In Nahuatl concepts of filth and cleanliness the plant used for brooms may have been unimportant, but the process of making brooms by twisting straw defined its purpose. One dictionary, compiled by Rémi Siméon, defines the noun *malinalli* as a tangle, twisted straw, braided for the construction of houses, and brooms.<sup>120</sup> Molina's Vocabulario, one of several sources for Siméon's, originally defined *malinalli* in the Spanish-language section as straw or *paja*.<sup>121</sup> The Nahuatl-language section of Molina's dictionary defines *malinqui* as any twisted thing, such as rope.<sup>122</sup> The twisting of straw during the process of making a broom contributed to its usefulness as a thing of *tlazolli* and a weapon against it. Cecelia Klein and Jeanette Peterson have observed how Nahuatl used *malinalli* in auto-sacrificial bloodletting rites.<sup>123</sup> The plant called

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<sup>120</sup> Rémi Simeon, *Diccionario de la lengua Náhuatl o Mexicana*. Iztapalapa, Mexico: Mújica Impresor, 2010: 251, *malinalli*.

<sup>121</sup> Molina, 2008 [1571]: 91v [first numeration].

<sup>122</sup> Molina, 2008 [1571]: 51v [second numeration] *malinqui*.

<sup>123</sup> Jeannette Peterson, "Sacrificial Earth: The Iconography and Function of Malinalli Grass in Aztec Culture." in *Flora and Fauna Imagery in Precolumbian Cultures: Iconography and Function*. Proceedings of the 44th International Congress of Americanists, 1982. Norman Hammond, gen. ed. and Jeannette Peterson ed. BAR

malinalli is depicted in a mid-16th century herbal compendium called the Cruz-Badiano Codex.<sup>124</sup> The codex depicts malinalli as a plant with long stalks, with a seed head tuft on the end of each stalk (fig. 5).<sup>125</sup> The text of the codex describes the use of the plants in a mixture to cure drooping eyelids. In addition to its medicinal uses, Peterson points to the use of malinalli in the production of brooms and its depiction as twisted grass in a variety of glyphs and toponyms. Her investigations prove that the "practical need to actually twist *malinalli* grass in the fabrication of various grass artifacts physically underscored the metaphorical and ethical meanings given malinalli in the Nahuatl language." Burkhart has also pointed to the overlap between moral filth and physical filth in relation to straw. She concludes that personal filth, "represented metonymically by the straws, was transferred onto them through the symbolic action of the ritual of tongue sacrifice, the coating of the straws with one's own blood."<sup>126</sup> Singular straws and bundled straws attracted and eliminated filth from the body and home. Brooms were powerful tools against disorder and filth because the brooms themselves were twisted pieces of tlazolli that easily attracted and gathered other dangerous forces.

The relationship between twisting and negative forces is paralleled by the association of straightening with positive forces in Nahua culture. Burkhart has pointed to the use of heart-

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International series 171, 1983: 115,123. Peterson identifies the plant as belonging to the family of Muhlenbergia grasses. Cecelia Klein, "Wild Woman in Colonial Mexico in *Reframing the Renaissance* 1995: 252.

<sup>124</sup> *Códice de La Cruz-Badiano*, INAH, Colecciones de la Biblioteca Nacional de Antropología e Historia, CD-ROM, Códices de México 7, 2008; The illustrated manuscript was written in Nahuatl by a Nahua physician named Martín de la Cruz. Juan Badiano, a Nahua nobleman and teacher at the College of Santa Cruz in Tlatelolco, collaborated in the project and translated the manuscript into Latin. The Latin version, sent to the Hapsburg Crown, is the only surviving copy of the manuscript.<sup>124</sup> The Cruz-Badiano provides herbal-remedies for toothache, fevers, and treatments to help a person safely cross a river. This range of concerns reflects both Nahua and European concepts of illness.

<sup>125</sup> *Códice de La Cruz-Badiano*, INAH, Colecciones de la Biblioteca Nacional de Antropología e Historia, CD-ROM, Códices de México 7, 2008, 12v.

<sup>126</sup> Burkhart, 1989, 101.

straightening rites that Spanish friars assumed to be the same as confessions, *neyolmelahualiztli*, as a purification ceremony easily worked back into the Nahuatl conceptual system.<sup>127</sup> Her work points to acceptance of the ritual as proof that the friars adopted (at least in language) the Nahuatl view of inseparable moral and the physical states. I am interested in the original uses and interpretations of straight and twisted in Nahuatl terminology. Twisted objects such the straw for brooms and tangled piles of unspun yarn were vested with the negative force of *tlazolli*.<sup>128</sup> Humans were also susceptible to these twists and doublings of character.

Humans became twisted, or doubled, as a sign of their negative attributes or behavior. The adverb *necoc* meant of both parts, and the doubled life, *necoc nemi*, meant a doubled man, or a man of two faces.<sup>129</sup> The verb *necuilteca*, to reverse something, was also used when describing the bent or unkind nature of human actions.<sup>130</sup> When a person was under the influence of the *Ciuapipiltin* goddesses who dwelled at the crossroads, they made one hate and mock people; when possessed "the person's mouth was twisted, their face was contorted; they lacked use of a hand."<sup>131</sup> Even the noble classes exhibited twisting and reversal, aspects or defects of their character. One of the chapters of the FC that focuses on the occupations of people describes the bad noble in this way: his heart was crooked, bent, and twisted.<sup>132</sup> A person of noble lineage was a straightforward person, they were not to twist their words or negatively influence people. The bad person of noble lineage was said to be contemptuous of others; they created disorder

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<sup>127</sup> Sahagún, 1979, [1575-70]: vol. 1, bk. II, f. 7r-10r; Burkhardt 1989: 182.

<sup>128</sup> Burkhardt, 1989: 93.

<sup>129</sup> Molina, 2008 [1571]: 65r [second numeration] *necoc*.

<sup>130</sup> Molina, 2008 [1571]: 65v [second numeration] *necuilteca*.

<sup>131</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 4v-5r; Molina 2008 [1571]: 65v [second numeration] *necuiltec*.

<sup>132</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. X, f. 11r *iollochico*, *iollonecuil*, *iollocuecuch*; Burkhardt 1989: 177.

among people.<sup>133</sup> Another aspect of the esteemed noble was that he would never affront others.<sup>134</sup> However, the evil or not beautiful noble caused trouble and was twisted in his words.<sup>135</sup> The bad physician was also a practitioner of tangles. The fraudulent physician was described as a sorcerer who was a "diagnostician by means of knots."<sup>136</sup> The bad female physician was also someone who would bewitch the patient and tell his or her fate with cords.<sup>137</sup> The spinners and weavers who performed their jobs poorly in the physical and the abstract sense twisted their work and tangled their threads.<sup>138</sup> The spinner, much like the broom maker, took goods that were filled with tlazolli, such as unspun cotton and loose straw, and wove them together to form something that instilled order, cleanliness, and straightness.

Physical uprightness and bodily straightness were signals of good character, according to the Nahuatl. The verb for straighten, *melaua*, meant to straighten out an injustice (or blindness), declare or explain the sacred texts, and to walk in a straight line.<sup>139</sup> When the verb was combined with the noun for way of life, *nemiliztli*, it meant a saintly and just person of a good life, or sincere without any doubling.<sup>140</sup> The verb used to describe the perversion of another was

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<sup>133</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. X, f. 13v; Molina 2008 [1571]: 65v [second numeration] *papatla*.

<sup>134</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. X, f. 10v; Molina 2008 [1571]: 95v [second numeration] *teicomaquiliztica*.

<sup>135</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. X, f. 10v *amo iectli*; Molina 2008 [1571]: 94r [second numeration] *ixcueloa*.

<sup>136</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. X, f. 20v; Molina 2008 [1571]: 55r [second numeration] *mecamalina*. Although the divination technique was presented negatively, it was not necessarily an "evil" skill.

<sup>137</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. X, f. 38v.

<sup>138</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. X, f. 37r; Molina 2008 [1571]: 79v [second numeration] *papaçoloa*.

<sup>139</sup> Molina, 2008 [1571]: 55r [second numeration].

<sup>140</sup> Molina, 2008 [1571]: 55r [second numeration] *melauacanemilice*.

*yollocuepa* or to turn one's heart.<sup>141</sup> The straight in heart and straight in body were elevated above those with twisted features. The Nahuatl required straightness in body and character from the people they chose to personify their deities.

Descriptions of the bodies of god-impersonators in the FC makes it clear that twisted characteristics in any form was intolerable. The bodies of captives chosen to impersonate or embody the gods were subjected to intense scrutiny. The ideal for the physical form was a person without defect or blemish, very clean, and healthy. For this reason, a merchant who planned to buy slaves for bathing and sacrifice was very particular. He looked for those who were slender and "in all parts like a round, stone column."<sup>142</sup> There was a very specific set of body guidelines for those destined to impersonate Tezcatlipoca. The god-impersonators were never to have twisted, nor bent, nor crooked noses; their noses were to be straight.<sup>143</sup> They were not to be too tall or too short, but be slender, "reed-like, long and thin."<sup>144</sup> The images that accompany these descriptions depict this canonical ideal for the bodies of god-impersonators. The images also relate the sacrificial sequence for the festival of Toxcatl. The first image in the sequence, as I interpret it, shows a handsome-looking young man standing in a loincloth in front of a building (fig. 6).<sup>145</sup> He is speaking, as the text informs us, neither in a barbarous tongue nor with a lisp, to two attendants or priests. The priest on the left takes the wrist of the captive and points as if to inspect the flesh of the youth. The priest on the right proffers food and drink to signify that the

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<sup>141</sup> Molina, 2008 [1571]: 40r [second numeration] *yollocuepa*.

<sup>142</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. IX, f. 35v.

<sup>143</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 31r; Molina 2008 [1571]: 157v [second numeration] *vipana*.

<sup>144</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 30r.

<sup>145</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 31r.

youth will be fed and housed with the priests for a year. The following two images show the youth learning to play an instrument and being outfitted by the priests with all the necessary devices and accessories to impersonate the god properly. The next images in the sequence show the youth assuming the proper form of Tezcatlipoca, as he is looked upon by followers. He then plays the flute before his final sacrificial fate is completed (fig. 7).<sup>146</sup> The reason why there is much space to illustrate the path of the youth from bodily perfection to actual godliness is because the Spanish-language column fails to translate the physical descriptions. Whereas the Nahuatl-language column takes over three pages to describe the body of the chosen youth, the Spanish-language translation only returns to translating the text when the steps of the ceremony are described. The Spanish-language column reduces the lengthy physical description of the youth to a simple statement that they must choose among all of the captives "the most able, of best disposition...and without any corporeal mark."<sup>147</sup> The detailed descriptions of the corporeal character and temperament of those worthy to impersonate the gods, ignored by the Spanish-language text, shows the intertwined nature of physical and moral ideas among the Nahua. Those who were straight in body were also straight in their morality.

The straightness of the mind and body, according to the Nahua, was demonstrated through conduct and could be improved through heart-straightening rites. The heart was an important body part that needed straightening. Burkhart's research demonstrates the connections between Nahua ideas of the body and soul that were adopted and exploited by Spanish friars in the sixteenth century.<sup>148</sup> The Nahua authors of the FC described the straightness or the

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<sup>146</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 30v.

<sup>147</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 30v; "*los mas habiles, y mas bien dispuestos, que s pudiesen auer, y sin tacha ninguna corporal.*"

<sup>148</sup> Burkhart, 1989, 181.

orderliness of people using words derived from the verb *tecpana*, which meant to put people or things in order.<sup>149</sup> The good father was the exemplary one who established order.<sup>150</sup> The woman who was soon to give birth was also to maintain a straight path and avoid any interaction with chaos to protect her child. She must be careful to avoid lunar eclipses because her children might be negatively affected; the child might have some sort of deformity, or monstrosity, and might not be perfect or straight in body.<sup>151</sup> The heart, in particular, needed to be straight for a person to maintain a good life. The good ruler admonished his daughters who had come of age not to blacken or dirty their lineage. He described her young heart as a precious green stone that has not been defiled. Her heart was supposed to be untouched and "nowhere twisted."<sup>152</sup> The merchants had their own methods of dealing with a crooked heart. The first act of their feast was called the heart-straightening ceremony, *teyolmelaua*. On this occasion, one must take care "not to covet others' property and goods."<sup>153</sup> The FC also named a specific divine force in connection with the process of heart straightening. The goddess commonly called *Tlazolteotl* was both the goddess of filth and purification by the process of heart straightening.

*Tlazolteotl: Goddess of Purity, Goddess of Filth*

The Nahua celebrated the patron goddess of human sexuality and fertility known by names such as Toci, Teteoinnan, and Tlaçolteotl. Tlazolteotl, her common name, counted as her devotees the adulterers and the sexually promiscuous people in Nahua society. She and the

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<sup>149</sup> Molina, 2008 [1571]: 93r [second numeration] *tecpana*.

<sup>150</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. X, f. 1; Ibid: f. 3v.

<sup>151</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VII, f. 7v *in amo tlacamelaoac*.

<sup>152</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VI, f. 78r; Molina 2008 [1571]: 48v [second numeration] *izcalia*.

<sup>153</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. IX, f. 42v; Ibid f. 43v.

Ixcuiname,<sup>154</sup> were natives of the Huastec region, where especially fertile maize fields led the Nahua (of the FC, at least) to look down on them as overly-sexual people. Tlazolteotl's domain was of cleansing and filth. Although Anderson and Dibble rightly translated *tlaçulli* and *teuhtli* as evil and perverseness, their literal meanings according to Molina are trash and dust.<sup>155</sup> In Molina's Vocabulario, *tlaçulli* (tlazolli) is translated in the Spanish-language column as sin. Burkhart has shown that Tlazolteotl was, in addition to the dirty aspects of her figure, also considered a goddess of medicine.<sup>156</sup> Tlazolteotl's image as depicted by the artists of the FC hints at her dual nature: she wears a headdress of spun and unspun cotton and carries in her hands two different type of brooms, one of green grasses and another of green branches (fig. 8).<sup>157</sup> The unspun cotton, which is siphoned into spun cotton, represents the transformation from chaos into order. These two elements, the broom that signifies *tlazolli* and purification by sweeping, and the unspun cotton that symbolizes tangled disorder, highlight the complex role of Tlazolteotl as both transgressor and purifier. The text of the FC reiterates these qualities in describing her as the one who inspired in people all filth and threatening things but also "she forgave...she cleansed one; she washed one."<sup>158</sup> To the Spanish language writer, the act of forgiving made sense as an act of confession and it is translated as such. The Spanish text states "the carnal women and men

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<sup>154</sup> T. D. Sullivan, "Tlazolteotl-Ixcuina: The Great Spinner and Weaver," in *The Art and Iconography of Late Post-Classic Central Mexico*, ed. E. H. Boone, Dumbarton Oaks, Washington, DC, 1982: 7-8.

<sup>155</sup> Molina 2008 [1571]: 48v, 111v [second numeration] *tlaçulli*, *teuhtli*.

<sup>156</sup> Burkhart, 1989: 171; DiCesare 2009: 106.

<sup>157</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. I, f. 3r-4r; Sahagún 1979 [1575-70]: vol. 1, bk. I, f. [2r, image folios unmarked].

<sup>158</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. I, f. 7r.



confessed their sins to these goddesses."<sup>159</sup> A section on the goddess, Tlaçolteotl, is titled straightening one's heart, or *neiolmelaoliztli*. Her ability to remove corruption is listed under this section. The goddess was able to know one's heart, to know all of the hurt within a person's heart.<sup>160</sup> The goddess cleansed and washed the person with a crooked heart.

The Nahua men who contributed to the FC used the condition of the heart to signal good or poor health, upright morality and deviousness. Book X describes the heart as the thing that makes one live, or "that by which we exist."<sup>161</sup> The heart allowed one to live but it also expressed emotional and physical states. A person relied on his or her heart to beat and to give one certainty by feeling something. The heart felt joy but could be deeply troubled. Extreme vexation was considered the death of the heart, *iollomimiqui*. Molina's Vocabulario defines "heart-death" as the act of fainting or being as if dead.<sup>162</sup> The Nahua clearly believed in the importance of the heart's emotional and physical powers, using the phrase "the heart rules all."<sup>163</sup> It is no surprise that the heart was important in Nahua and Spanish culture: once a person's heart stops beating, he is unable to live. The quick beating of the heart also indicates excitement and chest pain felt during fainting, resulting in a loss of consciousness. However, the heart could be found in all important things, not just humans. As David Carrasco explains, "there was the "heart" of the mountain, the "heart" of the town, the "heart" of the sky, the "heart" of the

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<sup>159</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. I, f. 7r "*las mugeres y hombres carnales; confesauan sus pecados, aestas diosas*"

<sup>160</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. I, f. 7r *neiolcujtilo*; Molina 2008 [1571]: 27r, 40r 111v [second numeration] *cuitia, yollocuitlatittica*.

<sup>161</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. X, f. 91v.

<sup>162</sup> Molina, 2008 [1571]: 41r [second numeration].

<sup>163</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. X, f. 91v *quicemitiqui yn iollotli*; Molina 2008 [1571]: 16r [second numeration] *cemitqui*.

tree...”<sup>164</sup> The Nahua authors of the FC clearly viewed the heart as the seat of biological life and strong emotions.

The heart-straightening act had a much more traditional meaning for the Nahua authors than the introduced act of Catholic confession. The Nahuatl-language text of the FC describes a consultation with a wise person who would read the sacred book, the *tonalamatl*.<sup>165</sup> The Spanish text describes the person in a negative way, as a type of powerful magician.<sup>166</sup> The consultation session is depicted at the end of the section dedicated to *Tlazolteotl* (fig. 9).<sup>167</sup> A knowledgeable man, or seer, is seated in a red robe, while a man in a brown robe is seated on the ground across and below, seeking consultation. An elaborate red speech scroll issues forth from the mouth of the wise person. The artist also painted what appear to be seven grains of corn between the two men. The scene depicted is very similar to the first image that appears in Book IV, which describes the art of divination. In the divination book image, a man is seated above a woman who kneels on a petate mat and holds knotted cords used for divination (fig. 10).<sup>168</sup>

The scene depicted in the FC resembles a photograph taken by Alan Sandstrom of a modern female Nahua "shaman" who interprets the pattern of corn kernels during a ritual (fig. 11).<sup>169</sup> Sandstrom focuses on the ways in which divination is used to identify the causes of illness. He witnessed practitioners who performed divinations by gazing into crystal, and by

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<sup>164</sup> David Carrasco, "Uttered from the Heart: Guilty Rhetoric Among the Aztecs" *History of Religions* Vol. 39, No.1, Aug., 1999, 3.

<sup>165</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. IV; The *Tonalpouqui* were the officials in charge of reading the 260-day *tonalpohualli* cycle recorded in the divinatory almanac the *tonalamatl*.

<sup>166</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. I, f. 7r *hechizerias*.

<sup>167</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. I, f. 10r.

<sup>168</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. IV, f. 3v.

<sup>169</sup> Sandstrom, 1991: plate 11.

casting grains of corn and reading their resulting pattern. He confirms that even in modern Nahua communities the ability to divine accurately is the heart of the shaman's struggle against discord and suffering. Divination provides the "key information that allows the restoration of harmony in the human domain."<sup>170</sup> In the FC, the images shows a seated man performing divination by throwing several grains on a mat. The woman is not making a confession, a fact confirmed by the absence of the red and embellished devious speech scroll shown during the heart-straightening ceremony. It is useful to compare these two images of divination, one from the sixteenth century and the other from the twentieth, and to consider how the enduring Nahua practice differed from Judeo-Christian practices.

The goddess *Tlazolteotl* acted through a proxy during divination ceremonies--the person who was able to read the sacred book, the *tonalamatl*. This person, the male or female *Tonalpouqui*, was consulted to determine the best day for visitation and cleansing according to the Mesoamerican calendar system. The 365-day Mesoamerican solar *xihuitl* calendar, which consisted of eighteen "monthly" periods of twenty days known as *veintenas*, plus five unnamed days, alarmed the friars because each *veintena* was associated with public religious events. Multiple sources from the colonial period record feasts and spectacles associated with this calendar.<sup>171</sup> Many of the documented celebrations featured ceremonies for agricultural deities, such as *Tlaloc*, a deity of rain and storms. For the dramatic feast of *Tlacaxipehualiztli*, for example, Nahua warriors engaged in mock battles that culminated in human sacrifice. The rites associated with the eleventh *veintena* included mock warfare, the shedding of animal and human

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<sup>170</sup> Sandstrom, 1991, 236-7.

<sup>171</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 66r-73r; Tovar, Diego Duran, Toribio Motolinia, and Ixtlilxochitl, etc.

blood, and intricate cleansing/sweeping ceremonies known as *Ochpaniztli* or "Sweeping the Way."

*The Sweeping the Way Ceremony of Ochpaniztli*

The Ochpaniztli festival was illustrated in the second book of the FC, which attempts to describe various sacred ceremonies. This particular ritual celebration exemplifies how the Nahuatl used purification traditions to reestablish harmony in both the earthly and divine realms. The images and Nahuatl-language text reveal both the material and divine aspects of the ceremony. The material aspects of the Ochpaniztli festival included a variety of accoutrements. The main participants were the physicians of women, old women, maidens, and some of the "pleasure women."<sup>172</sup> The physicians of women were the main group of people who devoted themselves to the Ochpaniztli activities, but the visual evidence indicates that the ceremony also involved a strong contingent of pleasure women and men, as well. The only image that depicts the Ochpaniztli ceremony in the FC shows two figures, both male judging by their manner of dress, brandishing flowers (fig. 12).<sup>173</sup> Pete Sigal and other scholars have argued that flowers signify vanity and subversive behavior.<sup>174</sup> Yet flowers convey a variety of meanings in Nahuatl culture, including representations of the afterlife.<sup>175</sup> The FC describes some of the paraphernalia used by participants that included the *cempoalxochitl*, twenty flower, a yellow-orange flowering plant comparable to the European marigold.<sup>176</sup> Sandstrom has pointed to the associations of this flower

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<sup>172</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 67r.

<sup>173</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 73r.

<sup>174</sup> Pete Sigal, *The Flower and the Scorpion: Sexuality and Ritual in Early Nahuatl Culture*. Durham: Duke University Press, 2011, 12, 34-35, 53.

<sup>175</sup> Mary Miller and Karl Taube, *An Illustrated Dictionary of the Gods and Symbols of Ancient Mexico and the Maya*. New York: Thames and Hudson, 1993: 48.

<sup>176</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 8r.

with the earth, death, and the underworld when he witnessed Nahuas tie fresh marigolds to the grave markers of their kinsmen.<sup>177</sup> In his work on symbolic health, anthropologist James W. Dow found that the *cempoalxochitl* branches and flowers were used to form a broom-like bundle for cleaning ceremonies by the Sierra Nāhñu (Sierra Otomí) of current day central Mexico.<sup>178</sup> Yet, sweeping was also the duty of men; those who were expected to be priests or warriors were expected to sweep.<sup>179</sup> I question the interpretation of the Ochpaniztli festival as a feminine activity, not to mention the dichotomy of male warriors and female broom-wielders. If we reconsider the participants of the festival as both female and male, we must also consider the purification rituals as fundamental acts for many community members, regardless of gender. It is important to understand the gender-specific use of accoutrements in Mesoamerican culture, such as the broom, in order to understand *Ochpaniztli*. During one part of the festival, for example, a group wielding blood soaked brooms as weapons engages in a mock battle with another group. The festival of Ochpaniztli suggests that sweeping was an activity for women and men. Sigal interprets the priests' acts of sweeping strictly in terms of an act of effemination: "Their brooms signify their ritualized feminization, a ritual in which they are placed under the control of the goddess"<sup>180</sup> Several scholars, however, have characterized sweeping as a broader, integral attempt to defend the community from filth. During Ochpaniztli the buildings and roads were

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<sup>177</sup> Sandstrom, 1991, 281.

<sup>178</sup> James W. Dow, "Central and North American Shamans" in *Mesoamerican Healers*, Huber ed., 2001: 86; James W. Dow *The Shaman's Touch: Otomí Indian Symbolic Healing*. Salt Lake City: University of Utah Press. 102; Sigal 2011: 49 In his research on the Codex Borbonicus, Pete Sigal concludes that these are feminized priests. He relies on the glosses that reads *putos* or faggots.

<sup>179</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. III, f. 31r, 32r.

<sup>180</sup> Sigal, 2011, 162.

zealously swept and brooms were inverted and wielded akin to clubs.<sup>181</sup> The mock battle, in which the brush end of the broom is used as a weapon, reinforces the threat of the tlazolli-laden object and its ability to affect those who come into contact with it.

The *Ochpaniztli* festival had many objectives, reflected in the assortment of paraphernalia, such as flowers and brooms, used during the celebration. Catherine DiCesare argues that the Mexico intended these purification aspects of the celebration "as magical and medicinal therapies to protect community and state, cure infirmities, and ensure healthy parturition."<sup>182</sup> The material items designated for the festival also represent the spiritual nature of *Ochpaniztli*. The divine element of the festival was the devotion to a particular goddess. Tlazolteotl could bring filth, but forces beyond divine powers, such as day signs, also influenced an individual's health. Day-signs, determined by birthdates, were a strong indicator of one's future welfare. Day signs were not associated with any gods or goddess; they were not associated with divine power but were named after simple elements of the lived environment. Day signs were named after commonplace creatures, forces, and objects such as rabbits, reeds, houses, wind, and snakes.

### **Good Health found in Divination and Day-Signs**

Several sections of the FC that address day sign divination at birth are fundamental to understanding how the Nahua interpreted individual health and prosperity. After the midwife performed rites of greeting and buried the umbilical cord and afterbirth, the soothsayer was immediately called. The soothsayer inquired as to the exact time of birth, whether before midnight or after, to determine the correct day sign that was to be assigned to the child. The day

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<sup>181</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 67r; Codex Telleriano Remensis 1964: 3r.

<sup>182</sup> DiCesare, 2009, 70.

sign had a tremendous impact on the future of Nahua children, but it was not exactly a sealed fate of doom or success. For some days, the soothsayer might read a bad sign for the child, but the nearby signs were good and could help to balance out the bad sign.

Part of the diviner's work included consulting the book of day-signs or the *tonalamatl*. The title is the combination of two words: the second word *-amatl* indicating paper preceded by *tonal*, a word with a complicated definition. Molina defined the noun *tonalli* as the heat of the sun, but when the noun was possessed, *notonal*, it meant the birth day signor soul.<sup>183</sup> In her research on Gods and God-bodies in Nahua culture, Molly H. Bassett summarizes the concept of *tonalli* as “heat; day-sign; fate, fortune, privilege, prerogative.”<sup>184</sup> The Nahua expressed multiple meanings but in reference to the human body, *tonalli* appears as heat or sweat. Book X refers to the possessed form of *tonalli* as perspiration that was “liquid, hot, of fetid smell.”<sup>185</sup> The *tonalli* as bodily heat signaled a person was alive but with exertion a person could reach a dangerous state of *tlazolli*. Once the bodily heat reached immodest proportions in the form of sweat, the stink of perspiration indicated the need to return to a calm state of equilibrium. Likewise, the day sign meaning of *tonalli* indicated prudence and caution to maintain a healthy destiny. The *tonalli* assigned to a newborn, according to the Nahua authors of the FC, greatly influenced his or her future health and demeanor. There were several day-signs described as ambiguous, as neither good nor bad, simply a neutral sign.

### *The Good and the many Mediocre Day-Signs*

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<sup>183</sup> Molina, 2008 [1571]: 149r, 74r [second numeration] *tonalli*, *notonal ynipan nitlacat*.

<sup>184</sup> Molly H. Bassett, *The Fate of Earthly Things: Aztec Gods and God-Bodies*. Austin: University of Texas Press, 2014. 116.

<sup>185</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. X, f. 93r *titonal*, *atic*, *totonqui*, *xoquiac*.

The Nahua authors of the FC were not experts in the day-signs, so they consulted with elders in the writing of a section of Book IV that explores the roles of diviners. This section appears to be a copy of the divinatory almanac maintained by wise men in their efforts to divine the futures of newborns. An image found in Book VI links morality and rhetoric to the fate of humans: a mother sits with her newborn listening to the diviner (fig. 13). The Nahua belief in the power of diviners to determine the moral and physical health of the child seems to predate the arrival of Europeans. It is impossible to tell if Book IV is an exact copy of the almanac, but it certainly contains some long-standing Mesoamerican traditions that were influenced by European oversight. Eloise Quiñones Keber has shown the original layout of the pre-conquest *tonalamatl*, showing how information in the FC on the day-signs "fails to communicate the cyclical aspect of the ritual-divinatory cycle but also hampers a proper understanding of this repeating ritual round in indigenous ideology."<sup>186</sup> The day-signs show a full spectrum of Nahua fates from positive to negative, and the many gray areas in-between.

The *tonalpohualli* was a sacred 260-day count based on twenty individual day names recorded in the *tonalamatl*, the divinatory almanac. This cycle operated concurrently with the previously described 365 *xihuitl* solar calendar. The *tonalamatl* explained the system that each of the twenty day-signs was permuted with the numbers 1-13. These thirteen-day periods described in the *tonalamatl* became known to the friars as *trecenas*. These naming systems allowed the guardians of the *tonalamatl* to read 260 unique day signs. The FC contains the entire

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<sup>186</sup> Eloise Quiñones Keber, "Collecting Cultures; A Mexican Manuscript in the Vatican Library" *Reframing the Renaissance: Visual Culture in Europe and Latin America, 1450-1650* Claire Farago ed. 1995; *Representing Aztec Ritual: Performance, Text, and Image in the Work of Sahagún*. Eloise Quiñones Keber, ed. Denver: University Press of Colorado, 2002: 241.



scheme in a graph<sup>187</sup> and illustrated<sup>188</sup> form (figs. 14-16). The images in Book IV explain some of the knowledge contained in the *tonalpohualli*.

### *Good Day Signs*

Ten Rabbit was a very propitious day sign despite the scowl that was painted on the mother's face as the *tonalpouhqui* points to his divinatory almanac in one of the images of Book IV (fig. 17).<sup>189</sup> Above these figures was painted the rabbit and ten red markers to designate the child's day-sign. At their feet, on the woven mat, lie strands of beads and quetzal feathers, symbolizing the child's future success. Those men and women with the good fortune to be born on Ten Rabbit were destined to be honored and bring happiness to those around them. Part of this good fate included the good fortune of living a long life.<sup>190</sup> This description shows the connection between good health and moral behavior, and how revered the elderly were among the Nahuatl. Other auspicious day-signs included One Crocodile, One Deer, etc. Another particularly good sign was Thirteen Rain. Some predicted a long life: "It was also said that he would become an old man, [or she] an old woman."<sup>191</sup> Yet there were many day-signs that were considered bad and still more considered indifferent.

One sign, One Deer, signified that the newborn would lead an unhealthy life dominated by fear. A person with the day sign of One Deer would experience great fright at the sound of lightning and thunder. The person "lived thinking only in his fears, he walked with his terrors,

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<sup>187</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. IV, f. 79v.

<sup>188</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. IV, f. 82r-v.

<sup>189</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. IV, f. 34v, the year Ten Rabbit refers to the day count calendar or *tonalpohualli* of a cycle of 260 days. Each day is assigned a combination of number from one through thirteen and one of the twenty-day signs. One Crocodile is followed by Two Wind, Three House, and so on.

<sup>190</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. IV, f. 34v.

<sup>191</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. IV, f. 15v.

only lived afraid, was frightened to death.”<sup>192</sup> Although fear came to dominate the fate of a person with the day sign of One Deer, fright was and continues to be a powerful force among the Nahua, regardless of one's birthdate. Another section of this chapter will discuss the relation between fear and human health. The day sign predicted

### **Purification by Water: Healing Baths in Many Forms**

The sections of the FC on day sign divination and bathing at birth reinforce the malleable nature of the day sign assignment if the power of the bath were used correctly. If a child were born with an inauspicious day sign, the parents need not despair completely. Children born on days such as Eight Reed or Nine Ocelot, days full of filth and misery, were not bathed immediately on those days. The diviner would wait until better days in the hope of improving the child's fate. The good diviner of the Eight Reed or Nine Ocelot child would delay the bathing until Ten Eagle, a better day-sign. They would stay the bath "in order to cause his day sign to result favorable, so that maybe something might come as his merit, if he lived."<sup>193</sup> The images that appeared most often in connection with divination depict bathing. One of them features two women bathing a child in front of a doorway. The child is male, as evidenced by the array of male gear at the foot of the tub: spears, shield, loincloth, and cape (fig. 18).<sup>194</sup> Yet the Nahua authors and illustrators make it clear that these ceremonies and rites were not only for male children. They were able to include at the end of this chapter a small image of women's equipment given at a girl's birth. A small illustration depicts a spinning whorl, a loom batten, a

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<sup>192</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. IV, f. 8r.

<sup>193</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. IV, f. 26r.

<sup>194</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VI, f. 170r.

reed basket, a spinning bowl, skeins, a shuttle, and a huipil (fig. 19).<sup>195</sup> It is important to note that brooms were not among the objects assigned to female children. This possibility of purification, of rescue by way of water, is also found in the FC book dedicated to the divination arts.

The section of Book IV dedicated to divination includes eleven images of people, water, and children in the act of bathing.<sup>196</sup> Many of the few illustrations in the book on the serious topic of morality and rhetoric focus on childbirth.<sup>197</sup> This fact indicates a strong connection between the morality of humans and the influence of childbirth ceremonial divination and bathing. It also shows how the act of bathing is the key element of the divination ceremony for newborns. To the Nahua writers and artists of Book VI, these purification rites were clearly a key part of the divinatory practice. The friars associated the Nahua preoccupation with bathing in water with their own baptismal ceremonies. Whether influenced by this association or not, a similar ceremony has survived in modern Nahuatl-speaking communities. Sandstrom observed a ritual called *maltisejcone*, when a child is bathed after birth. This ceremony includes an elaborate cleansing rite; "the new godparents buy gifts for the baby, and they may be asked to name the child at this time."<sup>198</sup> The bathing ceremony appears to be another example of a long-standing Nahua tradition.

According to the FC, a *ticitl*, a male or female healer, would perform the bathing ceremony. The entries in Molina's *Vocabulario* on bathing associate bathing with hierarchies: a filthy person is cleansed by a clean person. In the column that defines the entry *maltia*, a verb

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<sup>195</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VI, f. 170v *huipil* the traditional dress of women.

<sup>196</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. IV, fs. 19r, 22r, 24v, 26v, 27r, 29r, 32v, 33r, 44r, 57r, 65r.

<sup>197</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VI, fs. 130v, 128v; In Book VI on Rhetoric and Moral Philosophy there are eleven pictures of bathing and two pictures of woman in labor.

<sup>198</sup> Sandstrom, 1991, 296.

that means "bathe" when used without an object, there are seven other words with the same root referring to taking a captive in war.<sup>199</sup> The FC compared the act of giving birth with that of taking a captive in battle.<sup>200</sup> The description of the *ticitl* assisting a woman in labor was presented as an act of the mother taking a captive. The healer assists during the labor and provides medicine when necessary to ease the birth. At the moment when the child arrived, the *ticitl* would shout, she "gave war cries, which meant that the woman had fought a good battle, had become a brave warrior, had taken a captive, had captured a baby."<sup>201</sup> The Nahua compared the act of giving birth to the acts of warriors on the battlefield. The birth was to occur in the middle of the courtyard of the home, while the *ticitl* faced west. The *ticitl* then gave the child some water to drink and poured water over his or her chest. During this act the healer would say "Here is the blue water, the yellow water, which cleans our hearts, so that they be purified; which washed away our filthiness."<sup>202</sup> The healer sought to cleanse the child of filth using water.<sup>203</sup> The language and rites related to purification emphasize a fundamental distinction between cleanliness and filth; the newborn ceremony cleansed the child of filth, of all that was not good, of all that was not beautiful.<sup>204</sup> This focus on purification was not only reserved for infants; there were many others in Nahua society who were considered unclean.

*Hierarchies of Purity: Those Who Bathe Others and Those Who Are Bathed*

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<sup>199</sup> Molina, 2008 [1571]: 51v [second numeration] *maltia*.

<sup>200</sup> Burkhardt, 1989, 121.

<sup>201</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VI, f. 144r.

<sup>202</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VI, f. 171r.

<sup>203</sup> Molina, 2008 [1571]: 12v [second numeration] *catzatalia*, *catzaoliztli*.

<sup>204</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VI, f. 171r.

According to the Nahua, any person who was in a dangerous, uncertain, or low position deserved a good wash. Newborns, although not exactly in a low position, needed to be purified of the filth when their day-signs were being assigned.<sup>205</sup> Friars in the sixteenth century viewed newborns as carriers of original sin, not unlike the Nahua idea of the lowly, earthly, filthy origin of all humans. Nahuas looked upon children as the result of a sexual union that was not entirely negative, but nonetheless associated with filth.<sup>206</sup> A child was easily cleansed of this initial impurity. Others in society were not so easily washed. Captives and other types of slaves were given a ritualized wash and then arrayed in the finest dress. Merchants performed a bathing rite that took place in the month of *Panquetzaliztli*.<sup>207</sup> During this fifteenth month, rich traders displayed their wealth. They bought many slaves and then bathed and arrayed them in the finest adornments. This type of bathing was so specific that it merited its own verb. Molina defined *maltia* as to bath another, or for rich merchants to make offerings, or to sacrifice and kill slaves before the idols, or to offer ornaments in the temple or church.<sup>208</sup> The verb reveals distinct purposes for bathing as a form of ostentatious display. The merchants bought only healthy slaves. The successful and healthy merchant put on a grandiose display of giving gifts and bathing the unclean of society. The section of Book X on the professions of Nahua society informs us that the slave dealer or *Tealtiani* ("bather of slaves") was "a leading merchant...he was very rich in possessions."<sup>209</sup> Those who committed adultery and those who were wrongly

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<sup>205</sup> Burkhart, 1989, 113.

<sup>206</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VI, f. 148v; whether the filth of sexual union or see also *Nahua Myth* for being born "from earth."

<sup>207</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. IX, f. 34v-35r; Burkhart 1989: 113.

<sup>208</sup> Molina, 2008 [1571]: 4r [second numeration] *altia*.

<sup>209</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. X, f. 41v.

imprisoned had been exposed to dangerous tlazolli and thus were ceremoniously bathed.<sup>210</sup> The hierarchy illuminated by the bather (the person of higher positions and therefore with less filth) and the bathe (a person in lower position who was filthy) is reinforced in another example from the book on morality and rhetoric.

A chapter from Book VI on morality described the speech given by a newly installed ruler who must debase himself to undergo a purification that will leave him fit to rule. The ruler began his speech declaring that he was simply a common man. He claimed he was a mere *macehualli* because like them, he came from a place of filth and excrement.<sup>211</sup> The new leader then referred to his day sign as a signal that he was born to lead. The bathing ceremony has washed away the filth before he was selected to be a principal person in Nahua society. The rulers had to speak of their filth, referring to his previous low position, because it would soon be washed away by the deity "*Xiuhtecutli* who bathes and washed people."<sup>212</sup> He gave thanks to *Xiuhtecutli* for his purification by water and only then did he become exalted among the people.<sup>213</sup> Another image of bathing appears in this chapter, very different from the bathing scenes for newborns. The image features a larger-than-life *Xiuhtecutli* on the right surrounded by his palace or *tecpan* (fig. 20).<sup>214</sup> The goddess *Chalchiuhuitl*, the goddess of water, was most often invoked for newborns, but *Xiuhtecutli*, the god of fire and heat is summoned for the bathing of rulers. This god was instead the god of the sweat bath, the *temezcalli*; he was the one

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<sup>210</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VI, f. 213r; Ibid vol. 1, bk. IV, f. 65r-71r.

<sup>211</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VI, f. 33v.

<sup>212</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VI, fs. 33v-38r.

<sup>213</sup> Molina, 2008 [1571]: 78v [second numeration] *paca*.

<sup>214</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VI, f. 34r.

who provided the fire to heat sweat baths. Xiuhtecutili is pictured wearing his circlet set with green stones and from his right-hand flows water.<sup>215</sup> The stream of water flows down around a grown man, the new ruler, as two men seated next to the water witness the ceremony. This type of purification is necessary when we consider the challenges that the ruler will have to face. In the speech, the new ruler had to debase himself as wretched and beseech the god that to help him overcome dangers. The new ruler pleads: "And may sickness not strike me, not spread upon me. What will result when you...make the city a place of desolation? What will result when it is abandoned and darkened? And what will result when filth and vice have come upon me?"<sup>216</sup> The leader mentions sickness, *cocoliztli*, and *tlazolli*, in the same set of challenges. The scene reveals an aspect of bathing in Nahua society that departs from the concept of baptism in Judeo-Christian ceremonies. The multiple meanings and uses of bathing throughout the FC reveal an overwhelming concern with moral and physical cleanliness in Nahua culture.

### *A Nahua Daily Bath*

How common was bathing for those who were not sick or in some way contaminated by filth? Bathing must have been a common practice, done perhaps daily or at least weekly. Frank J. Lipp claims that "the banning of hygienic and medicinal procedures such as daily bathing, circumcision, and the native vapor bath, which killed syphilitic spirochetes and other microbes, greatly contributed to the spread of disease and epidemic infections."<sup>217</sup> Sigal refers to the Codex Tudela as evidence that the Spanish friars viewed the *temazcalli* not only as a place of idolatry

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<sup>215</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. I, f. 10r-11v *chalchiuhtetele*.

<sup>216</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VI, f. 35v.

<sup>217</sup> Frank J. Lipp "A comparative Analysis of Southern Mexican and Guatemalan Shamans," in *Mesoamerican Healers*, Huber ed., 2001: 96.

but as a place of cross-gender activity.<sup>218</sup> When we examine the FC, personal hygiene is an obvious concern of the Nahua despite the fact that bathing was a persecuted practice. The Nahua had a specific verb for hand washing; the good cook was described as a person who always washes herself and her hands.<sup>219</sup> Modern Nahua communities practice a ritual called *momapacalistli*, in which ritual kinsmen wash the hands of others as a sign of respect.<sup>220</sup>

There are several examples that show bathing, or abstaining from bathing, as part of a ritualized set of offerings. One prominent example occurs during the festival of the second month for the goddess *Coatlicue*. During this twenty-day month of *Toçoztontli*, youth, their captives, and entire households would abstain from bathing and fast, "soiling themselves."<sup>221</sup> The fact that not bathing for twenty days was considered a sign of filth suggests that people bathed regularly, even those in good health. After this period of soiling, everyone in the household would bath and especially wash their hair. The accompanying image shows two women washing their hair in a basin as two men stand above them, one with an incense holder and another holding a jar (fig. 21).<sup>222</sup> The text that accompanies this depiction of hair washing introduces another element to the process of bathing: they used soap, *mamoujia*.<sup>223</sup> The authors of the FC knew that soap or *amolli* was used in several rites, but they shared very little information about the production of the soap. There are two sections that describe the occupations of people,

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<sup>218</sup> Sigal, 2011. 188; Codex Tudela 62r for an image of the sweatbath; Tortorici "Heran todos putos."

<sup>219</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. IX, f. 39r; Ibid, bk. X, f. 37v; Molina 2008 [1571]: 52v [second numeration] *matequia*.

<sup>220</sup> Sandstrom, 1991, 300.

<sup>221</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 25v-26r.

<sup>222</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 26v.

<sup>223</sup> Molina, 2008 [1571]: 51v [second numeration] *maltia, quinmuchiquacmaltia*; Molina 2008 [1571]: 5r [second numeration] *amolhuia*.



especially merchants. Book IV and sections of Book X lists the roles of the feather makers, cacao sellers, and many other types of occupations. Yet soap is never mentioned as a product for sale, nor do they describe how to make it. I suspect that the plant used as soap was picked as needed, or perhaps it was gathered and distributed by someone.<sup>224</sup> The only section of the FC that sheds light on soap is the description of the amolli plant in Book XI.

### *Medicinal Plant Knowledge and Natural Soaps*

The origins of Nahua soap can be found in the book of the FC on natural history. The Nahuatl term for the plant, (*h*)*amolli*, is described as a long reed with white flowers. The description of the plant appears alongside other powerful plants that would "perturb one, that madden one."<sup>225</sup> Soap can be found next to peyote and other edible mushrooms. The text describes amolli as a cleanser whose large roots will make all of one's hair fall out but the "small, the slender ones are cleansers, a soap."<sup>226</sup> The Nahuatl-language column of the text states that the root is used to wash, cleanse, and remove filth in general. The Spanish-language column elaborates on the use of soap by stating that it was used to wash clothing and "wash the head." The image of the amolli root is painted alongside another, the one on the right appears to be the soap: a large yellow root with six leaves and a white flower (fig. 22). The description suggests why the authors chose to place the amolli plant in a section with other powerful herbs. The text recounts that the roots are also used to kill small fish, and that a person with a leech need only to

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<sup>224</sup> Molina, 2008 [1571]: 118 [first numeration] *xabonero que lo vende. amolnamacac*.

<sup>225</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. XI, f. 129v.

<sup>226</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. XI, f. 133r.

drink an infusion of amolli to kill the leech.<sup>227</sup> The use of the amolli plant for cleansing, hunting, and as a purgative shows how the Nahua respected the powers of the plant.

The Cruz-Badiano Codex presents a stunning image of the *amolli* soap plant (fig. 23).<sup>228</sup> The image alone communicates that the plant lives on or near water, signaled by the Nahua glyphs for water flower at the base. The plant has small leaves and beautiful white flowers. The image is located within a series of illustrations and Latin text in the first chapter, which addresses cures for problems of the head (fig. 24).<sup>229</sup> The text reads that the plant is able to stop the loss of hair when prepared "boiled with reeds and the animal *avat-tecolotl* (fig. 25).<sup>230</sup> They may have boiled it with the feathers or the flesh of the owl or *tecolotl*.<sup>231</sup> This plant has been identified by modern researchers as *Sapindus saponarius*; the plant is depicted with small berries (fig. 26).<sup>232</sup> Other modern images of the *Saponaria americana* reveal flowers and its use as a soap (fig. 27).<sup>233</sup> The Nahua clearly used and valued soap during bathing, at a time when early modern Europeans bathed once or twice a year.<sup>234</sup>

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<sup>227</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. XI, f. 133r.

<sup>228</sup> *Códice de a Cruz-Badiano*. Códices de México num. 7. Colecciones de la Biblioteca Nacional de Antropología e Historia. INAH. f. 9.

<sup>229</sup> Ibid, fs. 8-9.

<sup>230</sup> Ibid, f. 9. Amolli Detail Text.

<sup>231</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. XI, f. 48v.

<sup>232</sup> "Sapindus saponarius, Stegnospermas halimifolium" according to Anderson Dibble 1982, bk XI: 133, footnote 5. Sapindus saponarius.

<sup>233</sup> Gates, 1939 [1552], 122, "Saponaria americana "A small plant whose root yields a glutinous lather and supplies and excellent soap." see Sapindus saponarius flowers.

<sup>234</sup> James Hart, "Klinike, or The diet of the diseased· Divided into three books" London: Printed by John Beale, for Robert Allot, and are to be sold at his shop at the signe of the blacke Beare in Pauls Church-yard" in *English Cookery Books to the Year 1850*. Cornell University Library: Ithaca.

Nahuas used soap to bathe in their devotion to *Huitzilopochtli*, the patron god of the Mexica. After a year of abstinence from bathing and sexual activity, the chosen youth dedicated to *Huitzilopochtli* was outfitted with the god's adornments and ceremoniously bathed. The scene depicted two youths, one holding incense and another using a broom or branch dipped in the basin at his feet to wash the person adorned as *Huitzilopochtli*.<sup>235</sup> Little specks of water fly from the branch onto the head of *Huitzilopochtli*. The next paragraph describes the actions of the devotees at the end of the abstinence period with the following phrase “they each bathed and washed with amolli soap.”<sup>236</sup> The page also shows two women bathing their hair in water, while two men and a woman feast on foods that were not allowed during fasting periods (fig. 29).<sup>237</sup> The text shows how glad they are to be relieved of their duties, to be able to wash again.

The use of soap in washing was also described in relation to the ceremonies for *Atemoztli*. On the fourth day, everyone bathed and soaped themselves.<sup>238</sup> Then on the fifth day, they did not soap themselves (*amo mamoviaia*), but rather they washed only with water.<sup>239</sup> The act of abstaining from bathing is paired with another type of abstinence described in the section on making offerings in Book II. Namely, merchants practiced specific washing practices when at home and abroad. The merchants waited for a good day signand then "all washed their heads with soap and cut their hair here in Mexico."<sup>240</sup> When the merchants left the city to travel and trade wares they did not wash with soap, nor did they submerge themselves in water--they bathed

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<sup>235</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. III, f. 6r.

<sup>236</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. III, f. 7r *mahamoviaia*.

<sup>237</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. III, f. 7r.

<sup>238</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 90r *neamovilo*.

<sup>239</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 91r.

<sup>240</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. IX, f. 8v.

only up to their necks. The regular use of soap and washing suggests that bathing was a commonplace practice.

Along with drawing blood and keeping vigils, abstinence from baths was listed as an offering to the gods. The text makes a connection between refraining from washing with *amolli* soap, thereby allowing oneself to become dirty, and sexual abstinence, avoiding an act that would make one even more filthy. To complete this offering, one had to refrain from using soap and "no one bathed in the steam bath, nor did anyone lie with a woman."<sup>241</sup> These two acts, if done in moderation, were considered healthy for an individual. Perhaps the abstinence from them showed more devotion than a single act alone. The description also makes a distinction between two types of bathing, one in the *temezcalli* and the other with *amolli* soap. The use of *amolli* soap may have been, just as the Spanish-language column describes it, something that was used for washing clothing and hair. These descriptions use different verbs but both speak to the cleansing nature of baths, their ability to remove filth.

### *A Sweat Bath for Every Ill*

Another type of bathing took place in the *temazcalli*, the sweat bath house.<sup>242</sup> This type of bathing was identified by another verb in Nahuatl, *tema*.<sup>243</sup> The *temazcalli* is described in Book II among descriptions of other structures. The account of the structure gives some insight into the spiritual use of the bath house that complemented its practical purposes. Within the bath house there was "washing, cleansing, the holding of vigils."<sup>244</sup> The accompanying image shows a naked

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<sup>241</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. II, f. 124r.

<sup>242</sup> Molina, 2008 [1571]: 97v [second numeration] *temazcalli*.

<sup>243</sup> Molina, 2008 [1571]:96v [second numeration] *tema*.

<sup>244</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. XI, f. 244v-45r.

woman who is seated just outside the door of a large square building that has an opening for a fire (fig. 30).<sup>245</sup> The woman bathes in the warm stream that flows from the heated steam bath. Although the image lacks the blue color of water or even the standard glyph for water, the text explains that the stream flows into a nearby pool of water and relates that the temazcalli is a very wet place outfitted with channels.<sup>246</sup> The image portrays smoke or steam coming out of round windows or "navel-like openings," as they are described in the text. The steam bath also appears in the paragraph on how to treat spider bites. Here two men are depicted outside of the house, standing and bathing in a stream (fig. 31).<sup>247</sup> The healing properties of the temazcalli are also explained in the section on wounds and broken bones in Book X.

People went to the temazcalli for many types of flesh wounds.<sup>248</sup> A person who broke his leg received a poultice and once the bone was healed he bathed in a temazcalli. The same treatment was recommended for anyone struck with a lash or a stick. The healer or *ticitl* covered the wounds with a poultice, gave them an infusion of roots to drink, and put them into the temazcalli. The image shows a man seated in front of the bath house, drinking the infusion from a bowl. Behind him is the *ticitl* and another man who holds either curative plants or the wounding lash (fig. 32).<sup>249</sup> Another description of the temazcalli appears in the section on medicinal herbs and stones, which emphasizes the medicinal powers of the place and the virtues of bathing. The image resembles that of a man afflicted by a spider bite; one man sits in the

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<sup>245</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. XI, f. 245r.

<sup>246</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. XI, f. 245r; Molina 2008 [1571]: 9v [second numeration] *auic*.

<sup>247</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. XI, f. 93r.

<sup>248</sup> Burkhart, 1989, 172, sweat bath to remove the *tlazolli* of the bodily excretion of sweat.

<sup>249</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. X, f. 113v.

stream that flows from the bath house and another man behind him touches his shoulders. Both men appear to be speaking as smoke rises from the fire and steam pours out from the bath house windows (fig. 33).<sup>250</sup> The text explains that the sick can use the bath to restore their bodies and nerves, and those with festering wounds, such as pustules, were also advised to wash in the sweat bath. Although men were often pictured in the sweat bath, women also utilized its curative properties before and after giving birth.

The section on the *temazcalli* in Book XI describes how the physician who aided women in childbirth relied on the sweat bath.<sup>251</sup> The principal job of the physician was to massage the abdomen of the pregnant woman. In the sweat bath, the physician massaged the women at least four times to "place the babies straight in order that they will not extend crosswise nor settle face first."<sup>252</sup> These therapies were to ensure that the baby would not breech during birth. The image showed a woman shutting the door of the *temazcalli* on a pregnant woman seated within the structure (fig. 34).<sup>253</sup> The woman, having given birth, would also return to the *temezcalli* to regain her strength and cleanse or purify their breasts. This practice continues in modern-day Nahua communities, where indigenous midwives follow a bath schedule for the mother and child. Research shows that "women are given one to twelve postpartum sweat baths which are begun one day to six months after the delivery. Sweat baths may be taken daily, every other day, or every four days, and the midwife, the child, and other female relatives may accompany the

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<sup>250</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. XI, f. 180r.

<sup>251</sup> Although there were separate words for doctor and midwife, they could be used interchangeably at times, see Molina 2008 [1571]: 92v [first numeration] *partera*.

<sup>252</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. XI, f. 180r-v.

<sup>253</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VI, f. 139r.

mother.”<sup>254</sup> These ceremonies, according to the FC, would help them to produce a good flow of milk. Likewise, a mother who could no longer produce milk was also recommended to wash her breasts with saltpeter and visit the sweat bath (fig. 35).<sup>255</sup> Modern midwives prescribe similar uses of the sweat bath, one often on the third day, coinciding with the let-down reflex for the flow of milk “the sweat bath cleanses the woman, lowers the swelling of the womb, heats the body, which has now become cold from the delivery, heats the breast milk, and stimulates its flow.”<sup>256</sup> These examples demonstrate the curative power of the sweat bath and the many ways it was used to cure different types of health ailments. The use of the sweat bath by 16th-century and modern Nahua physicians for their treatment of ailments confirms the curative power of bathing. Therapeutic baths were used judiciously, especially following an intense event such as childbirth or sudden fright. Illness from fright, commonly known as *susto*, is another phenomenon described both in the FC and by modern ethnographers.

### **Susto or Fright Illness**

Several studies in medical anthropology recognize *susto* or fright illness in Mexico. Indigenous people associate fright with subsequent illness. Usually, the precipitating event or fright occurs independently; it could be separated by weeks or years from the onset of symptoms or eventual illness. Most studies mark a clear separation between the frightening event and the full-blown appearance of a pathological disease. In their research on communities in southern

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<sup>254</sup> Brad R. Humber and Alan. R. Sandstrom, "Recruitment, Training, and Practice of Indigenous Midwives: From the Mexico-United States Border to the Isthmus of Tehuantepec." in *Mesoamerican Healers*. Huber ed. Austin: University of Texas Press, 175, notes 19-23.

<sup>255</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. XI, f. 105r.

<sup>256</sup> Brad R. Humber and Alan. R. Sandstrom. "Recruitment, Training, and Practice of Indigenous Midwives: From the Mexico-United States Border to the Isthmus of Tehuantepec." in *Mesoamerican Healers*. Huber ed. Austin: University of Texas Press, 197.

Mexico, anthropologists find *susto* to be a widely-known belief with a well-established etiology, diagnosis, and regimen of healing. Their research shows that although “the element of fright... is always present in the people’s account of events to which *susto* is attributed, probing uncovers that it is not the fright itself” that creates the long-term suffering of the individual.<sup>257</sup> Similarly, a modern study among the Nahuatl-speaking peoples of the Huasteca confirms that Nahua medicine “tends to look for the ultimate causes or conditions that led that particular patient's body to become vulnerable to disease in the first place.”<sup>258</sup> In both colonial and modern times, Nahuas attributed illness from *susto* to a frightening experience, which caused one's spirit and body to suffer.

One scholar defines *susto* as “soul loss through magical fright or simply fright.”<sup>259</sup> Loss of a person’s vital force due to fright caused illness far beyond the initial frightening event. The Spanish term for soul, *alma*, is a poor translation for what indigenous groups considered the vital forces of the body. Molina defined the soul with the Nahuatl terms *teyolia*, *teyolitia*, and with the Spanish-language loanword of *anima* with the Nahuatl *te-* prefix. *teanima*.<sup>260</sup> The same definition appears in the Nahuatl-language section of the dictionary. Removing the *te-* prefix, the Nahuatl section of the dictionary defines *yoli* as a living thing.<sup>261</sup> As a verb, *yoli* indicated “live,” “revive,” or “incubate an egg,” definitions that reinforce a general sense of life. A related noun,

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<sup>257</sup> Arthua J. Rubel, Carl W. O’Neill, and Rolando Collado-Ardón, *Susto: A Folk Illness* Berkeley: University of California Press, 1984, 43.

<sup>258</sup> Alan Sandstrom, *Corn is Our Blood: Culture and Ethnic Identity in a Contemporary Aztec Indian Village*. Norman: University of Oklahoma Press, 1991, 301.

<sup>259</sup> Avisi Mysyk, “Susto: An Illness of the Poor.” *Dialectical Anthropology*. Vol. 23. July 1998, 187.

<sup>260</sup> Molina 2008 [1571]: 8v [first numeration].

<sup>261</sup> Molina, 2008 [1571]: 39v [second numeration] *yoli*.



*yollotl*, "heart," "pith," or "core," links Nahua ideas of a life force to a physical bodily location.<sup>262</sup> According to Frances Karttunen, the prefix *yol-* indicates "an extended sense that encompasses emotion, volition, strength, valor, and heart."<sup>263</sup> When Nahuas used the prefix *yol-* they indicated a thing's physical and spiritual elements. In Sandstrom's words, the Nahua pantheistic worldview considers that "the universe itself is a sacred, indivisible whole and everything in it is an aspect of deity. All things, including human beings, plants, and everyday objects have a spirit presence..."<sup>264</sup> It is impossible to divide intangible life forces from the material world. Alfredo Lopez Austin observed that the human heart was the seat of the life force of the *teyolia*.<sup>265</sup> At the same time, Julia Madajczak reminds us that the heart was also an important Christian concept.<sup>266</sup> In any case, the heart was a prominent Nahua concept before and after contact with Christianity.

Many sections of the FC on health and the human body reveal a fundamental divergence between Nahua and Spanish concepts of disease. The following section of the dissertation details Nahuatl-language explanations of health and illness, considering how these concepts were explained in metaphorical terms that often transcended physiological descriptions. Nahua authors used specific language to communicate ideas of physical and emotional states that was based on their cultural framework of disease. Louise Burkhart writes that "Christianity treated the symbolic relationship between physical and moral pollution primarily as metaphor while Nahua

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<sup>262</sup> Molina, 2008 [1571]: 40v [second numeration].

<sup>263</sup> Frances E. Karttunen, *An Analytical Dictionary of Nahuatl*. Austin: University of Texas Press, 1983, 340.

<sup>264</sup> Alan R. Sandstrom, "The Face of the Devil: Concepts of Disease and Pollution Among Nahua Indians of the Southern Huasteca." *Mexique Indigène Moderne et Contemporain* 1989: 357.

<sup>265</sup> Lopez Austin, *Cuerpo*, 1980.

<sup>266</sup> Julia Madajczak, "Nahuatl kinship terminology as reflected in colonial written sources from Central Mexico: a system of classification" Warsaw: Uniwersytet Warszawski Środowiskowe Studia Doktoranckie, PhD Dissertation, 2014: 39-42.

ideology treated it primarily as metonym". Her research confirms that whereas Spaniards acknowledged a divide between physical and emotional/moral states, Nahuas believed in no such boundary. Nahua authors used physical and emotional descriptions to indicate the status of health of the human body. The following section does not attempt to designate the exact nature of Nahua life forces; rather, it describes the physical and spiritual forces that Nahuas described and illustrated.

The Nahua authors of the FC and the healers they consulted described the heart as round and hot, "that by which there is life, it makes one live...it sustains one."<sup>267</sup> In her interpretation of a statue of the goddess Coatlicue, Cecelia Klein draws attention to another figure, Yolotlicue (Hearts-Her-Skirt) and suggests a connection between human hearts and the tuna fruit of the cactus.<sup>268</sup> Elizabeth Boone refers to additional sculptures, including one of Coatlicue who wears a necklace of alternating hearts and hands.<sup>269</sup> Both scholars link the sculptures to a larger group of goddesses, but Klein ties them and their vestments to the Mexica creation legends of sacrifices that were made to put the sun into motion. Their work creates a link between precontact forms of sacrifice and a postcontact focus on the heart as an indicator of power. The Nahua also clearly valued the heart as an important sacrifice during the ceremonies of Tlacaxipeualiztli. In the ceremony, the Nahua removed the hearts of captives to make offerings to the sun and the eagle. The Nahua priests called the human hearts "precious-eagle-cactus-fruit," explaining their

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<sup>267</sup> Sahagún, 1979 [1575-1579] vol. 3, bk. X, f. 91v.

<sup>268</sup> Cecelia F. Klein, A New Interpretation of the Aztec Statue Called Coatlicue, "Snakes-Her-Skirt" *Ethnohistory*, 55:2, Spring 2008: 233.

<sup>269</sup> Elizabeth H. Boone, "The "Coatlicues" at the Templo Mayor" *Ancient Mesoamerica* 10, 1999: 194, see Boone's figs. 5 and 10 for images of the sculptures.

important status.<sup>270</sup> The heart represented a treasured life-sustaining thing, the ultimate offering from human beings. In making offerings to the Mexica patron god, Huitzilopochtli, priests fored the god's body from amaranth dough and then ate the body, reserving the heart for Moteuczoma.<sup>271</sup> The descriptions of the fates of humans, their personalities, and emotions in Book IV exemplify the heart as the signifier of personal volition. Similarly, descriptions of vices and virtues in Book X consistently refer to a person's heart as the seat of their disposition and health. For example, the deranged madman who was very sick was called a person who lost his heart or had an evil heart.<sup>272</sup> Clearly, the heart served as a vital bodily organ and a moral compass. The section focused on body organs also described heart death or *njiolmjquj*.<sup>273</sup> Molina defined the suffering of heart death as "to faint, die away, have unease/itch, or to be frightened."<sup>274</sup> Fright had severe physical and spiritual consequences that affected the heart, long-term health, and the emotional well-being of the victim.

### *Remedies for Susto*

Modern ethnographic research has documented the symptoms of and treatments for the susto illness. Symptoms include restlessness during sleep, listlessness, loss of appetite, and depression. Nahuas writing in the sixteenth century also considered susto or fear an illness because it is listed as an illness in two herbals from the colonial era. Colonial sources of herbal remedies confirm that fear required treatment.

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<sup>270</sup> Sahagún, 1979 [1575-1579] vol. I, bk. II, f. 18v, an image of an eagle eating the sacrificial heart held aloft by a priest is found in Bk XI: Sahagún 1979 [1575-1579] vol. 3, bk. XI, f. 47v.

<sup>271</sup> Sahagún, 1979 [1575-1579] vol. I, bk. III, f. 4v.

<sup>272</sup> Sahagún, 1979 [1575-1579] vol. 3, bk. X, f. 24r.

<sup>273</sup> Sahagún, 1979 [1575-1579] vol. 3, bk. X, f. 91v.

<sup>274</sup> Molina, 2008 [1571]: 41r [second numeration] *yolmiqui*.

The Cruz-Badiano dedicated an entire page to remedies for the illness of fear. The remedy for fear appears after the remedy for warts and before a section on eliminating armpit stench, a placement suggesting the mundane nature of *susto*. The text recommended an herbal concoction and a poultice made from plants named in Nahuatl, among other ingredients. The text, in Latin, explained that this medicine was appropriate for a person who was "fear-burdened".<sup>275</sup> Two images of the described herbs are drawn above with Nahuatl-language labels that correspond to two types of herbs mentioned in the recipe.<sup>276</sup> The authors explicitly recognized fear as an illness, and one that would cause enough long-term suffering to warrant several methods of treatment. The remedies prescribed in the Cruz-Badiano offer material solutions to what the Nahua considered a physical and spiritual affliction.

Book XI of the FC confirms the link between fear and illness. One section on healing plants lists an herbal remedy for someone suffering from certain conditions of *susto*. The text states that "even if he has been sick already one year, or perhaps already four years, [treatment] is required."<sup>277</sup> Such information reinforces the long-term illness associated with fear, as described in several ethnographic studies. The evidence links modern accounts of *susto* and colonial sources through indigenous authors' descriptions of fear illness. Facial discoloration may have been one way to diagnose *susto*. The verb *iztaleua* meant the whitening of a person's face due to fear or sickness.<sup>278</sup> As explored in the follow section, Nahua beliefs also focused on the face and facial features to express health and illness.

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<sup>275</sup> *Codex Cruz Badiano* f. 53. *Timoris nel micropsyechiq Remedium...Meticulosus bibendam surtat potient concinnatam herba tonatiuh yxiuh que aurj niforem exprimt. herba tlanextia xihuitl... 97.*

<sup>276</sup> *Codex Cruz Badiano* f. 53.

<sup>277</sup> Sahagún, 1950-2012: Bk. XI, 183; 1979: Bk. XI, f. 173.

<sup>278</sup> Molina, 2008 [1571]: 49r [second numeration].

## Breath and Life

The Nahuatl authors of the FC explained that breath was key to living a healthy life. They associated breath not with the mouth but with the nose. A section of Book X dedicated to body parts associated the mouth with eating and the nose with breathing. The nose brought in and forced out air or *ehecatl*, it was considered “our source of life.” Alfredo López Austin observed the importance of breath, *ihiyotl*, for concepts of bodily health. Molina defined *ihiyotl* as “resting breath or blowing” and the phrase *ihiocaua* meant to collapse, or to lose breath due to a lot of work or sickness.<sup>279</sup> The term *ihiyotl* is listed in another section dedicated to the lips. Clearly the breath was integral to Nahuatl ideas about bodily health. The loss of breath is another signal that the body loses its ability to function properly. Modern day Nahuatl speakers acknowledge the sacred living power of the breath by defining *ihiyotl* as “sacred little air” or *pilhecatzin*.<sup>280</sup> The definition carries the prefix *pil-* indicating the reverential form of child when combined with the suffix *-tzin*.<sup>281</sup> According to the FC, the breath was “honored, famed, stern, afflicted, courteous, good, beautiful...it has honor...it disgraces...it becomes calm.”<sup>282</sup> The breath or wind from the mouth could easily be associated with visual emanations in the form of speech scrolls.<sup>283</sup> The

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<sup>279</sup> Molina, 2008 [1571]: 36r-vr [second numeration].

<sup>280</sup> John Sullivan, Eduardo de la Cruz Cruz, Abelardo de la Cruz de la Cruz, Delfina de la Cruz de la Cruz, Victoriano de la Cruz Cruz, Sabina Cruz de la Cruz, Ofelia Cruz Morales, Catalina Cruz de la Cruz and Manuel de la Cruz Cruz. 2016. *Tlahtolxitlahucayotl*: Chicontepec, Veracruz. Warsaw: IDIEZ/University of Warsaw, 237.

<sup>281</sup> James Lockhart. *Nahuatl as Written: Lessons in Older Written Nahuatl, with Copious Examples and Texts*. Stanford: Stanford University Press, 2001, 230.

<sup>282</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. X, f. 79r.

<sup>283</sup> Boone, 2000, 58-9.

term *ehecatl*, when not possessed, indicated the general force of wind in Nahua culture.<sup>284</sup> I would venture that the scroll shape found on the cut shell jewels associated with Ehecatl-Quetzalcoatl. The similarities between the scroll for wind in the gear for Ehecatl-Quetzalcoatl and the shape of the speech scroll reinforces the sacredness of breath and speech.<sup>285</sup>

### *Winds in Nahua Culture*

The Nahua related the force of wind or *ehecatl* to the god Quetzalcoatl. According to Book I on the Gods, Quetzalcoatl relied on the winds to express displeasure because when “it blew in many directions, and it thundered, they said he was angry.”<sup>286</sup> Elizabeth Boone's study of the representation of Quetzalcoatl and his avatar of Ehecatl points to his extended nose as an instrument that created the winds and blew them around the world.<sup>287</sup> Book VII of the FC lists winds according to the cardinal directions. One wind that originated in the west called *ciuatlampa ehecatl* threatened people, but not greatly. It made people “tremble, shake and quake; it exhausted them; it gave them stomach pains or pains in the lungs, or the head.”<sup>288</sup> The most threatening wind, however, came from the south, the *uiztlampa ehecatl*. The Nahua dreaded the *uiztlampa ehecatl* because “everyone feared harm, it made men speechless with terror; it made them silent with fear.”<sup>289</sup> The winds wrought great damage and afflicted humans with fear and

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<sup>284</sup> José Montoya Briones, *Significado de los aires en la cultura indígena México*: Instituto Nacional de Antropología e Historia, 1981; Michael Kearney *The Winds of Ixtepeji: World View and Society in a Zapotec Town*. New York: Holt, Rinehart and Winston, Inc., 1972.

<sup>285</sup> Virginia M. Fields, John M. D. Pohl, and Victoria I. Lyall, *Children of the Plumed Serpent: The Legacy of Quetzalcoatl in Ancient Mexico*. Los Angeles: LACMA and Scala Publishers, 2012, 128-9.

<sup>286</sup> *Ibid*, 128-9.

<sup>287</sup> Elizabeth Hill Boone, *Magliabechiano and the Lost Prototype of the Magliabechiano Group*. Berkeley: University of California Press, 1983, 205; Codex Magliabechiano 60v-61r.

<sup>288</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VII, f. 9v-10r.

<sup>289</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VII, f. 10r.

pains. Molina listed several different types of winds, some bringing much needed rain, others bringing disease.<sup>290</sup> The association between the threat from natural phenomena and human diseases was expressed in the verb *totoca.*, meaning “for water or wind to move quickly or to have a great pestilence.”<sup>291</sup> The winds called *temoxтли ehecatl* brought sickness and pestilence. Winds upset the natural order of the world and could threaten the well-being of communities.

Winds, in particular winds with a strong stench, endangered Nahua lives. Sandstrom observed that Nahua communities still associate winds with disease.<sup>292</sup> In his work with several shamans he identified the Filth Wind or *Tlasole Ejecatl*. The filth wind and others like it cause all types of misfortunes “including drought, barrenness, and death.”<sup>293</sup> The filth wind could be summarized in Molina’s definition of *potonqui*, as a very smelly thing, a stench, or fine dry dust or well-milled flour.<sup>294</sup> Chimalpahin recorded another link between smell and air by referring to the god of wind as *Quetzalcoatl Tlilpotonqui*.<sup>295</sup> The dictionary also lists *miquiz hiyaltic*, a stinking thing or a dead and rotten thing.<sup>296</sup> Burkhart noted the importance of stench in the tlazolli complex, how it was thought that the souls of commoners became “stinking beetles,

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<sup>290</sup> Molina, 2008 [1571]: 89v, 98r [second numeration] *quiauhyo ehecatl, temoxтли eheccatl*.

<sup>291</sup> Molina, 2008 [1571]: 150r [second numeration].

<sup>292</sup> Alan R. Sandstrom, *Traditional Papermaking and Paper Cult Figures of Mexico*. Norman: University of Oklahoma Press, 1986, 81-101.

<sup>293</sup> *Ibid*, 81.

<sup>294</sup> Molina, 2008 [1571]: 83v [second numeration].

<sup>295</sup> *Codex Chimalpahin: Society and Politics in Mexico Tenochtitlan, Tlatelolco, Culhuacan, and Other Nahuatl Altepetl in Central Mexico; The Nahuatl and Spanish Annals and Accounts Collected and Recorded by don Domingo de San Antón Muñón Chimalpahin Quauhlehuanitzin*, eds. and trans. Arthur J. O. Anderson and Susan Schroeder. Norman: University of Oklahoma Press, 1997, vol. 1, 180–181. Perhaps the title is used only as humble Nahua name but perhaps it also refers to *Tlil-* (black) and *-potonqui* (stinking thing).

<sup>296</sup> Molina, 2008 [1571]: 56v [second numeration], Molina 2008 [1571]: 36v [second numeration] *iyac*

creatures that gave off very foul-smelling urine...<sup>297</sup> Her research highlights the connections between the god Tezcatlipoca and the ability of stench-tlazolli to sicken and even to kill. For example, the FC explains that a householder would die if a skunk sprayed his home, that the foul odor indicated that “Tezcatlipoca broke wind.”<sup>298</sup> The stench of Tezcatlipoca represented by the skunk not only afflicted the person sprayed, but “it reached everywhere, and spread on people. The stench sickened people and molested one’s nose.”<sup>299</sup> The nose was the entrance for the lethal spreading nature of stench that afflicted people. Exhaling and inhaling through the nose created life-giving winds, but they also put a person in danger of smelling the lethal substance of tlazolli.

## **Conclusion**

Nahuas sought to combat the lethal nature of tlazolli in ways that protected their moral and physical health. Nahuas in the sixteenth-century relied on the curative power of bathing, the filth-eliminating power of brooms, and the ambivalent fates of day-signs to ward off filth. The construction of the broom from tlazolli enhanced its power to collect and keep filth away from people. The supernatural powers associated with the broom functioned in the same way that the goddess Tlazolteotl purified people from tlazolli. The bodily and moral health of individual people was greatly influenced by their tonalli, as determined by diviners in a day sign assignment ceremony. The personal sign determined their destiny, including their future wellness. The divination ceremony relied on purifying water to cleanse the child of a possibly painful fate. Bathing was a feature of childbirth, and a commonplace act in daily life. Nahuas bathed

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<sup>297</sup> Burkhart, 1988: 90, 95 citing Mendieta 1980: 97.

<sup>298</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. V, f. 9v.

<sup>299</sup> Sahagún, 1979 [1575-70]: vol. 1, bk. V, f. 10r.



frequently and cleansed their hair with a plant-based soap. Both in colonial and modern times, Nahuas purified others with brooms and ritualized bathing. A wash from an expert in divination could help a child avoid a fear-wracked destiny. Fear illness or *susto* could wreak havoc on an individual, lasting well beyond the initial frightful experience. Two herbal sources from the colonial period explained remedies for *susto*, showing the intense effects of the illness. The physical ramifications of *susto* affected the forces that maintained life for the Nahua. Another important measure of a healthy life consisted of the breath. The breath, or in a broader and sacred sense, the wind, indicated personal health. Any stench carried by wind would undoubtedly cause harm to the individual. These elements are crucial to understanding ideas of good health and how Nahuas worked to maintain it individually and as a community. They provide an outline of transgressive behaviors and the sickness that would afflict the transgressor. The person who interacted with the *tlazolli* concepts of filth, immorality, and disease would suffer and become a contagious agent in Nahua society. The following chapter explores how Mediterranean, and particularly Castilian peoples, viewed health and sickness. Their concepts of illness in relation to moral and religious concepts is the focus of chapter two. The following two chapters apply the Nahua and Spanish concepts of health and illness to the histories of the conquest and colonial period.

decerfas

cerimonias.

fo. 127.



Todas las noches, un poco antes de la media noche, los ministros de los ydolos, que tengan cargo dello, tocan con los caracoles, y trompetas y azarinas: y luego se levantan con todos a ofrecer sangre, y encienso, a los ydolos, en los cueros, y en todas las cosas particularas.



En llegando la media noche, los ministros, que llaman a los que se quitan, rasgan los atabalas, para que despertarlan. Y los que no despiertauan a quella hora, castiganuanlas, echando sobre ellas agua, o recoldo. del fuego.

Iniquae acia iauh iave intla itla icmotolinistruemij quista ia amonjean ininjiquiz, iave ininjiquistuh, auh inigē icmuchivaz iautotl achitiqui pia incacatl quitzetzeloaia injuicpa intonatiuh quista ia, vn popolihuizy intlarri quiz, anoco hamaaz iuhquim icmonetolhuaia injetonatiuh.

Hatlapitzalizthi.

Inje muchivonia intlatlapitzalizthi iquae inteha quauh iorac, in iconacihuh ionahce pantla iquae flapitzaloia ic nechoaia injehan Diabla, ic teixitloia.

Haticia Havilizthi.

Inje muchivaia haticia havilizthi, iniquae ic hila ca iniohaal ne pantla oacic, notlapitzalo, ic teixitlo, ic pevaia intlapiazalizthi mote nehoia havitequimi, auh

139

Apendiz

del libro: 2.

ña, alas montañas: la que se gastava en los cues, y hazian timbrar de las cues mang' xerúti, de los satrapas: y dalli toma van, para gasta'la, que se quemavan mucha, entre roo'be, y día, en los patios de los cues, en vnos fugones altos: que para esto espavan hechos, en los mismos de los cues, y los que moravan en el col mecat, tenían cargo de traer, esta leña. ac'ho llamavan, tequauhtiquetzaliti.

Tambien ahonrra de los dioses, que tenían en sus casas, tenían gran cuy d'ado, de barrer la casa, y el patio, y la portada, cada día luego de matutina. Y el señor, o la señora de la casa, tenían cargo de compeler, a todos los de su casa, para que hiziesen esto, cada día. Y después de hecho esto, incensavan, y ofrecían alas ymages, que tenían en sus casas: y esto cada día. Ac'ho llamavan, hachpanaliti.



Tenjan gran vigilancia de noche los satrapas, y ministros de los cues de velar, para que no faltasse, de arder fuego, en los fugones del patio, y para despertar, a los que aujan de traer alas horas, que aujan de incensar, y ofrecer de lance. de los ydōs. Y ac'ho llamavan, tocovaliti.

quahuitl inquauhla contequja inje vncantaklaz ichan Diablo qujmaquetzaia, ichoantlin quichi vaia in vncan nenca ichandi ablo inflamacevaia.

Hachpanaliztli.

Inhachpanaliztli ic muchivaia, cenca qujncuitlaviltiaia, cenca cuithaviltioia in tepilhoan inaco cihoa, anoco oqujchtin in vna in chachan in jimivalco inje hachpanaque. auh in iwoac tovatjin co ino achto hachpanque, njmā qujchivaia in ventlamapictli in conmanaia ixpan Diablo, auh in iwoac ontlamanato, njmā ic concuja in intlema in jctlenama casque.

q' tocovaliztli. i. ix tocovaliti.

Inic muchivaia tocoliztli, iquac in iwoactica: ichoantlin in vncan nenca ichan diablo, in qujpaia ioalli, cenca ix toco tinenca, inje amo hacochea oasque, y nje qujpaia ioalli. inixqujch sca tlathuis: y nje qujpaia, ichica, in nlein machiaaz y niquac ioalnc pantla, anoco itaquauhioac,



Fig. 3, Sandstrom, 1991: Plate 22, ©Alan Sandstrom, used with permission



22. A village shaman brushes his patient with sacred palm brooms to rid her body of wind spirits.



Fig. 5 *Códice de La Cruz-Badiano*, INAH, Colecciones de la Biblioteca Nacional de Antropología e Historia, CD-ROM, *Códices de México* 7, 2008, 12v





Fig. 6, Sahagún 1979 [1575-70]: vol. 1, bk. II, f. 31r, ©Biblioteca Medicea Laurenziana

*de la fiesta* *Toxcatl.* *fo. 31.*



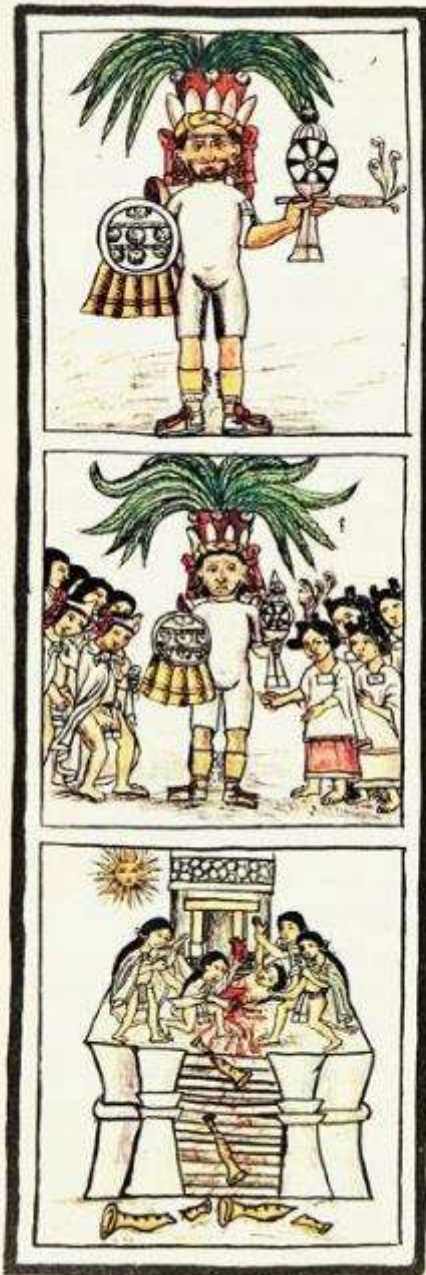
amo temmijcquj. amo thanpantc  
amo thancajcujsrte. amo coahla  
ne. amo thancoatic. amo than  
xoiauhquj. amo thanpalanquj:  
iuhqujn tecczthi itlan, velonoc  
vipantc. amo thancaxtic. amo  
no ixthiquyltic. amo ixnacatic.  
amo ixujsaltic. amo itzitsigyl  
tic. amo ixpeporantc. amo ix  
pipiltic. ixpipiltic. ixcoacaltic.  
amo ixcocomoltic. amo ixatla  
moltic. amo ixcaacatic. amo ix  
totolontic. amo ixtotomatic. a  
mo itzatzapiltic. amo itzaga  
moltic. amo itacaltic. amo que  
chitiquyltic. quecbomozolne. quec  
tzitsiquyltic. quechnacatic. quechxi  
xiqyiltic. amo no nacazpatlatic.  
amono nacazvilaxtic. amo quecb  
iltic. amo quecbzepeotitc. amo  
quechacquj. amo quechujia. a  
mo quechujlatstic. amo quecbne  
cyltic. amo quechneetic. amo ma  
viujlatstic. amo matziatic. amo  
macuecuetzin. amo mapiltotema  
tic. amo itiuylaxtic. amo cujla  
tellic. amo cujlapostic. amo xic  
quisquj. amo xicotaltic. amo xic  
cucto. amo itzitsaltic. amo cuj  
tlapeditic. amutzintopaltic. amo  
tzinecucuetzatic. tzintamalque  
cuetzatic. Inaqujn iuhquj y. atle  
itlacuhca. atle yiaica. atle y  
tlacuhca. atle ytlacuijca. atle y

*Al manco que se criava. para ma  
tarle enesta fiesta; en señuante a  
gran diligencia. que supiese bien*

35

Libro: 2.

de las ceremonias.



ca muchioa, ynaqujn acaia quauó  
 tic. quilibuá in coa: quauóhín.  
 quauóhachalan, cihalmaololo:  
 ynaqujn pepenalora. intexipha  
 ate yiaoa: iuhqujn flacbiéti. iuh  
 qujn tomad, iuhqujn teloloti. iuh  
 qujn quauótl flaxixindli, amoqua  
 cooroziac, quacolocttic, velzō  
 melaoac, tōmpiaztic, amo ix  
 quachacha quachtic, amo ix qua  
 totomonguj, amo ix quaxitontic,  
 amo ix quaxiquipiltic, amo qua  
 metlapiltic, amo cucx cohuipitic,  
 amo quachitatic, amo quapats  
 tic, amo quapattlacitc, amo qua  
 oacaltic, amo quaxozomalacqij,  
 amo ix quamaalacachtic, amo  
 ix quatolpopocactic, amo ix qua  
 tolmemetlapiltic, amo campopo  
 naztic, amo ix ujujlastic, amo  
 amujujlastic, amo ix popotitc,  
 amo no camachaloacaltic, amo  
 ix metlapiltic, amo ix pechtic, a  
 mo iacapatitc, amo iacacowia  
 tic, amo iacaxaxacaltic, amo ia  
 cacaxtic, amo iacachitteltic, amo  
 iacaujtotitc, amo iacaneucultic,  
 can veliac yrijac, iacapiastic,  
 amo tenxipaltotomacac, amote  
 xipaltotomac, tenxipaltotomaltic,  
 amo tenacartc, amono tenmeda  
 piltic: amono itzatzacqij, amo  
 nenepilchanpichtic, amonene  
 pilchaacaltic, amo popelar, amo  
 tentsitzipl, amo tentsitzipillatōa



Fig. 8, Sahagún 1979 [1575-70]: vol. 1, bk. I, f. [2r, image folios unpaginated], ©Biblioteca Medicea Laurenziana



Fig. 9, Sahagún 1979 [1575-70]: vol. 1, bk. I, f. 10r, ©Biblioteca Medicea Laurenziana

Capitulo. 13.

de xiuh tecutli.

fo. 10.

sabemos, por mucha experiencia, que dello tenemos. Dize, que se confesavan los viejos: y de los grandes peccados dela carne. Deste vien se arguye, que aun que aujan hecho, muchos peccados, en tiepo de su iuuentud, no se confesavan de ellos, hasta la vezez: por no se obligar, a castigar de peccar, ante de la vezez: por la opinion que tenjan: que el que muera, acynadit en los peccados, al que se confesava una vez, no tenia remedio. En lo arriba dicho, no ay poco fundamento para arguyr: que estos yndios desta nueva espana: se tenjan por obligados, de se confesar, una vez, en la vida, y esto en lumine natural, sin auer tenido noticia, de las cosas de la fe.



¶ El capitulo treze, trata de los dioses: que son menores en dignidad, que los arriba dichos. Y el primero destes, es, que llaman xiuh tecutli, es otro Vulcan.

macue. Aub ymguac otlamace ub, niman calaub ynichan: ic cenmajan, monemilzicuepa: quilmach intla ocepá tlatacoz, quilca acemo tlaculilonj. Quilmach can yio vey nequalli, veyne quaujfectli, intetlaximaliztli: inquitoaia veuetque. Injc moiolmelaoaia veuetque: quilmach, ichoat, ynjc amo tzaculstlozque, njcan tlalticpac, ynjn tlapilchicall: Yntla otetlaxinzy njc amo quatehaxihloz, ynjc amo quatepitzinloz, ynjc amo quatetzotsonaloz, moiolmelaoa. Intlapouhquj, ynjaxpan tlalilo, tlapilchicalli: can niman acan quitoa, intlein ixpan tlalilo, intlein ihuilo: ipampa ca amo ich ynihujlo, in nonotzalo, carloque, canaque, in maco, inihujlo, in tlapilchicalli: ca amo ich motla, in macealli.

¶ Injc matlaxtli Vmcy, capitulo: yn techpa tlatoa, yn tepitoton te teuh: yn qujn to qujsta, yn omotencuhque, yn veucmtin te teuh.



Libro. 4<sup>o</sup>.

Y esta astrologia, o nigromancia fue tomada, y ouo origen de vna muger: que sellama Oxomoco, y de vn hombre que sellama cipactonal. Y los maestros, desta astrologia, o nigromancia: que contauan estos signos, que sellamauan tonalpouhque: pintauan a esta muger Oxomoco, y a este hombre cipactonal: y los ponjan en medio de los libros: donde estauan escritos, todos los caracteres de cada dia; por que dezian: que eran señores desta astrologia, o nigromancia, como principales astrologos: porque la inuenteron, y hizieron esta cuenta, de todos los caracteres.



Capitulo segundo, del segundo signo: llamado ce

oan, iaopan concaoaia: vel on can mtecahoa, mtecaolo, y mtecaia can concaoaia. Auh mtecaia oatl otlaca: y mtecaia imalac, ichcauh, itzaoalac, ioan ipopouh, ichpanoas ipan contemaia y mtecaia, mtecaia neditlapas: y mtecaia, mtecaia mpa iamy cioazimthi, can cali ichan: ic can mtecatitlan. Hecuy nacasco concaoaia y mtecaia. Auh m m tonalpouh, uuh mtecaia: le hecan mtecaia, ichoan quite macaque, m mtecaia teneoalo mteca Oxomoco, ioan cipactonal: m Oxomoco cioatl mtecaia: auh m Cipactonal oquich thi: m tonalpouhque cauca, y mtecaia amauh quijolotima: y mtecaia y mtecaia quijolotima, mtecaia quijolotima: ca uuh mtecaia, vncan tlatoque mtecaia y mtecaia ixquich tonalpouh.

**L** mtecaia mtecaia: ifech pa tlatoa, mtecaia mtecaia.

Fig. 11, Sandstrom 1991: plate 11, ©Alan Sandstrom, used with permission



11. A Nahua shaman interprets the pattern of corn kernels during a divination ritual. Note the crystals, coins, and other items lined up on the embroidered cloth.



Fig. 12, Sahagún 1979 [1575-70]: vol. 1, bk. II, f. 73r, ©Biblioteca Medicea Laurenziana





Libro, 6,

de la Bethorica.

nacido despues de la media  
noche, atribuyante al signo  
del dia siguiente, y si auja naci  
do en la media noche, atribuyā  
le a ambos signos: y luego m  
rauan sus libros, y prendē stia  
uan le su ventura buera o  
mala segun la calidad del  
signo en que auja nacido.



¶ Despues de auer nacido la  
criatura, luego procurauan de  
saber el signo, en que auja nacido,  
para saber la ventura que auja  
de tener: a este proposito, y van  
luego a buscar, y hablar al ad  
iujno que se llama tonal pouhqui,  
que quere dezir, sabe conocer la  
fortuna delos que nacen: primera  
mente este adiujo preguntaua  
por la hora, en que auja nacido, y el  
que yua a buscarle le dezia la hora  
en que auja nacido la criatura: y lue  
go el adiujo reboluya los libros, bus  
caua el signo, en que auja nacido,  
segun la relacion del que yua a  
formarle: y luego preguntaua el  
adiujo, si auja nacido de noche o

ma vel ioal nepantla: se itechqui  
poua intonalli, i cemilvitlapoalli  
inoquiz. Auh intloquiz ioal ne  
panthla. Hlacatia: itechqui poua  
intonalli, i cemilvitlapoalli, in  
oallatoquiltis: auh intla vel io  
alli ixelviān Hlacatia: necoc qui  
poua intonalli. Auh nijuan qui  
tata inmamux: vncan quithais, in  
quenamj imacoal piltomli: incux  
qualli, incux meo amo: injuhcat  
at itoloca i cemilvitlapoalli: inj  
pan otlacat.

¶ Auh iniquic otlacat piltomli:  
nijuan quitenalpouit. qujnotsa in  
tonalpothqui, qujnotsa inijman  
oieco, inijman otlalticpac quiz.  
Nijman quitta, quicoa inijtil, in  
tlapat: iniehoatl tonalpothqui,  
quitta icemilvitlapoalli: Hlatlanj.  
Cujx ioal ticat inohtacat, inie  
co, cujx xelvi ioalli, cujx  
oonquiz inioalli xelvi: intla  
casiemo aci ioalli xelvi: oc  
nepa cemilvit ipan poui, inj  
pan otlacat: oc nepa tonalli  
itech pouhqui inijtlacatiliz:



Fig. 14, Sahagún 1979 [1575-70]: vol. 1, bk. IV, f. 80r, ©Biblioteca Medicea Laurenziana

*Del libro 4.*

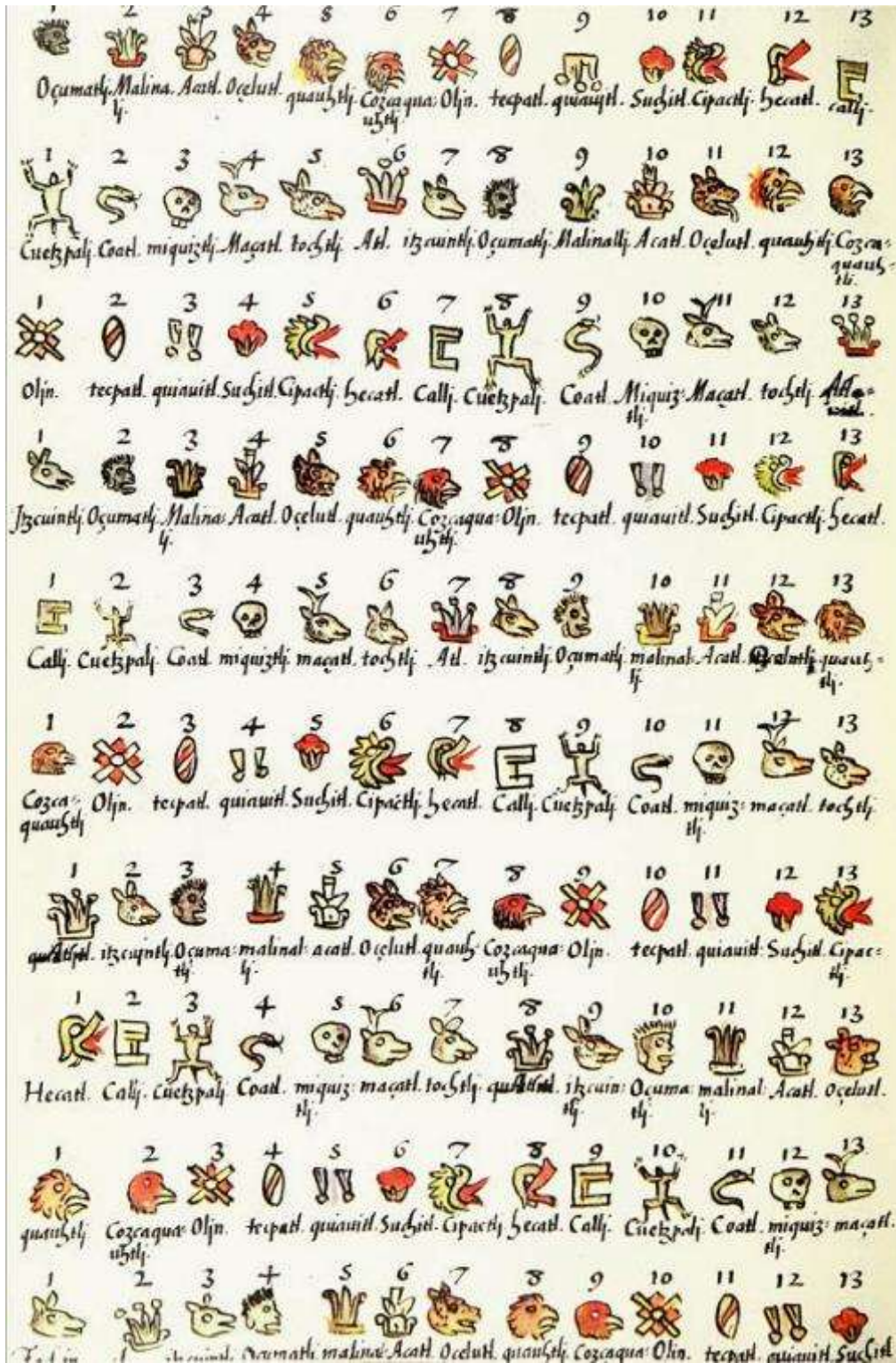
1 Acah		1	8	2	9	3	10	4	11	5	12	6	13	7
2 Toapat		2	9	3	10	4	11	5	12	6	13	7	1	8
3 Calli		3	10	4	11	5	12	6	13	7	1	8	2	9
4 Toahli		4	11	5	12	6	13	7	1	8	2	9	3	10
5 Acah		5	12	6	13	7	1	8	2	9	3	10	4	11
6 Toapat		6	13	7	1	8	2	9	3	10	4	11	5	12
7 Calli		7	1	8	2	9	3	10	4	11	5	12	6	13
8 Toahli		8	2	9	3	10	4	11	5	12	6	13	7	1
9 Acah		9	3	10	4	11	5	12	6	13	7	1	8	2
10 Toapat		10	4	11	5	12	6	13	7	1	8	2	9	3
11 Calli		11	5	12	6	13	7	1	8	2	9	3	10	4
12 Toahli		12	6	13	7	1	8	2	9	3	10	4	11	5
13 Acah		13	7	1	8	2	9	3	10	4	11	5	12	6
14 Toapat		1	8	2	9	3	10	4	11	5	12	6	13	7
15 Calli		2	9	3	10	4	11	5	12	6	13	7	1	8
16 Toahli		3	10	4	11	5	12	6	13	7	1	8	2	9
17 Acah		4	11	5	12	6	13	7	1	8	2	9	3	10
18 Toapat		5	12	6	13	7	1	8	2	9	3	10	4	11
19 Calli		6	13	7	1	8	2	9	3	10	4	11	5	12
20 Toahli		7	1	8	2	9	3	10	4	11	5	12	6	13

Fig. 15, Sahagún 1979 [1575-70]: vol. 1, bk. IV, f. 82r, ©Biblioteca Medicea Laurenziana





Fig. 16, Sahagún 1979 [1575-70]: vol. 1, bk. IV, f. 82v, ©Biblioteca Medicea Laurenziana





Libro 4<sup>o</sup>

no tenga devoción a su signo, ni hazia penitencia a honra del. La razon: por que desia: que las quatro casas posteras, de cada signo: eran bien afortunadas, es, porque desian: que aquellas quatro casas posteras, de todos los signos, se atribuyan a quatro dioses prosperos. El primero de los quatro: se llamava flavizcalpan tecuti. Y el segundo: citallitue. Y el tercero: tonatiuh. Y el quarto: tonacatecutli. Por esto desian los astrologos: que los que nacen en estas casas, serian prosperos, y tendrian larga vida: si se baptizasen en la postera.



quipaquiltia, uhi quijnteaacoras, te  
 zigali; tehoatl mje mipea, tamáccoale,  
 tlacnopiltuianj, camuchoncan quij  
 caia, miuhquij inemactia misquijla  
 manuh, mje con motareoa. No uhi  
 quij máccoatl muchiaia iniaatl,  
 moquij, tonoaia, momauz, ohaia, vel  
 motitlanquianj, hancje aquij mje, teoa  
 meuchioan, tepim tlaccolianj. Et  
 auh in tlacca amo uhiquij ipan mo  
 chioaia, mytoa: acqia coian, mevia  
 como caujia, quimotla co. mje chio  
 mjeonal: ipampa acacuel omonob.  
 nea comouel otlam áceuh, miuh ie  
 mjeccom emito. Auh mje mjeoa: cen  
 ca quadian in tonaltzonco, mje pan  
 matactomej oomachi (io an in oc  
 cequij ipan tonaltzonco) mje vmpa  
 quijmquac quimachiaia in tlacchia  
 mje pan in izquibet tonalli omotereuh  
 in quijcenteteoana, matacthi tochtli:  
 ipampa mytoa, quij mach muhupa  
 novimtia vncan tlacca: ichoan tla  
 camijhujielka, quijtlacahuja in tonal  
 zonco, itoa Flavizcalpan tecuti,  
 ioan citallitue, nijman ic tonatiuh,  
 ioan Tonaca tecuti: ichoatl mje quij  
 quallitua zonaltzouhque, in quito  
 aia: cauel vncanca ikajilli, ne machli:  
 ioan noquijtoaia, veuctioaia: in aquij  
 vncan tlacchia, quitoaia, quijtlamiz,  
 monemijts, in tlalticpac, tlamaujcos



*y philosophia*

poco viupra sobre la tierra, oles  
dize: mir ad que esta susigno in  
diferente medio bueno y medio  
malo: luego busca vndia que  
sea fauorable, y nole baptizan  
al quartodia, e cha adelante  
el baptismo en algundia que  
sea fauorable, vno de los doze  
que se cuentan con el primero ca  
racter. Lo que merece este a  
diujno, por esta adiuynanca que  
ledan a comer, y abeuer, y algunas  
mantas, y danle muchas cosas  
que son gallinas, y vna carga  
de comjda..



¶ Capitulo. 37. del baptismo  
de la criatura y de todas las  
cosas ceremonias que en el se  
hasian, y del poner el nōbre ala

*moral fo 170.*

tlacalli ilviliez: mochtequiltz,  
icnototl ilvil, inemac iez, neia  
inmotetecotinemiz tlaticpac:  
iece atletiz, inlein malitz go  
ce cochtot, veistot, tlacubhquij  
iez: noce quimilvia, mixitl,  
tlapatl ilvil, itequjah iez, vctli  
quimocujtlaviz: noce quimilvia,  
amo veuotas, can achi totmati  
uh qujoallalitz: tlaximottlican  
can tlapanimani intonatiuh,  
in vncan omodacatli. Niman  
qujepena in qualli tonalli:  
amocan nauhipantica in mal  
na, oc concholotia quxtitlia in  
qualltin tonalli, in anoco qual  
tin in vncan tlacua in tlac  
quicatio. Auh intonalpauhtquij,  
in ijlvil, injmaceoal, injnemac:  
atli, tlagua, quxtlauhtia: auh  
amocan quexquich in quima  
ca, can mantiu in totolin,  
auh can tlamamalli in tlagualli.

¶ Insc cempoalli oncaxtelli  
omome capitulo, vncan mitra:  
inse vntlamantli injnrealti  
liz pipiltotonti: auh inlein



Fig. 19, Sahagún 1979 [1575-70]: vol. 2, bk. VI, f. 170v, ©Biblioteca Medicea Laurenziana

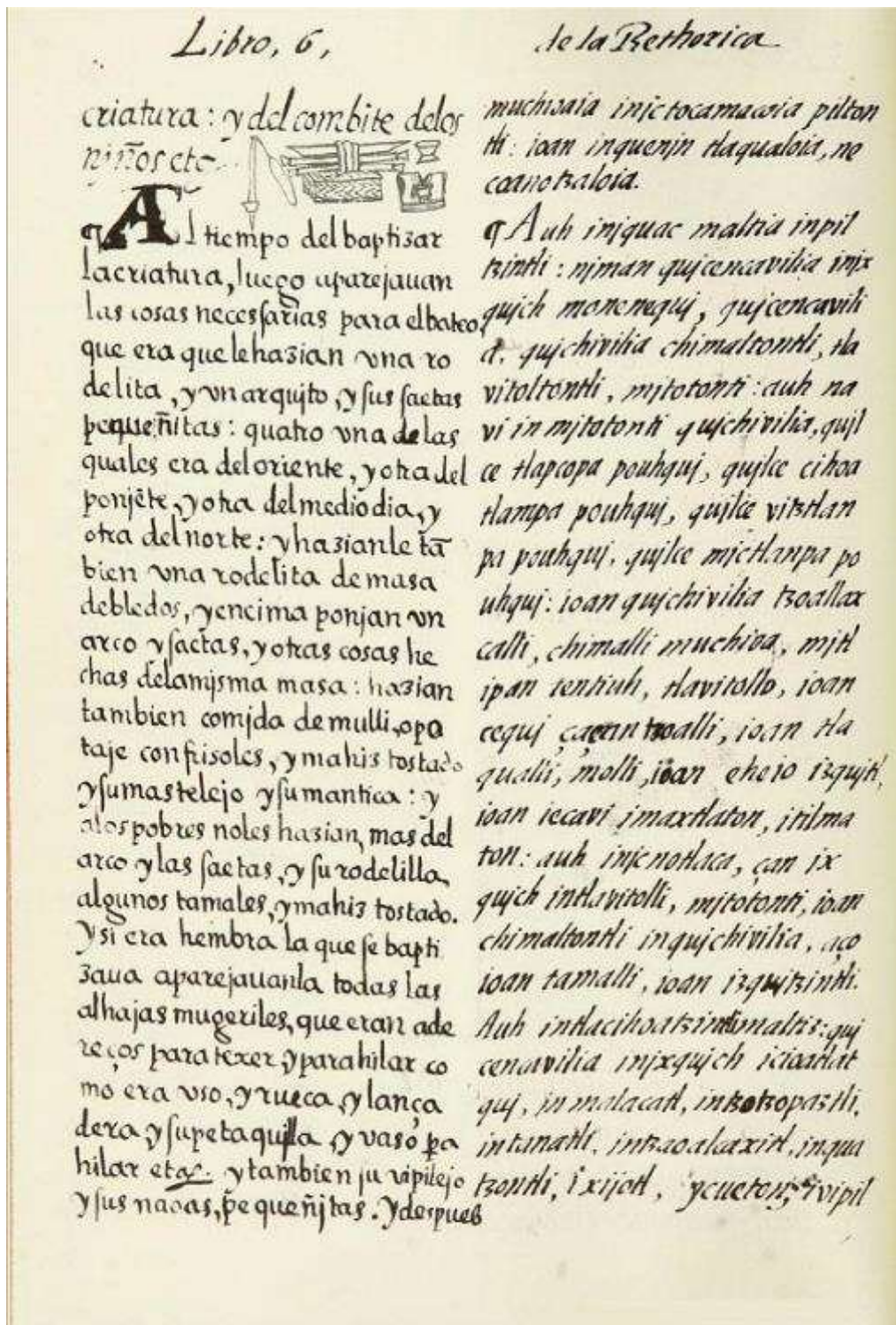





Fig. 20, Sahagún 1979 [1575-70]: vol. 1, bk. VI, fs. 34r, ©Biblioteca Medicea Laurenziana

*y philosophia* *moral* fo. 34.

y para esto efecto, los criastes abiles, y prudentes, tomados de nobles, y generosos padres, y para esto criados y enseñados: y que fueron nacidos y baptizados en sionos, y consellaciones, en que naden los señores, y para ser vros instrumentos, y vuestras y magines, para regir vuestro reyno: esta do dentro dellos, y hablando por suboca, y pronunciando ellos vras palabras, y para que se conformen, con el querer del antio dno, y padre de todos los dioses, que es el dios del fuego, que esta en el <sup>pal y regue de agua</sup> hogar, <sup>alme y nido</sup> entre ~~rosas~~ <sup>como rosas</sup> corcado de piedras, el qual sella ma Xiuhtecutli, el qual detez mjna, y examjna, y conclue los negocios, y letijos del pueblo, y de la gente popular: al qual siem pre acompaña, y estan esu preferencia las personas generosas a rriba dichas.



Ohumanyssimo señor, regidor y gouernador, gran merced,

in motlapenualhoan inshvileque, in maceoaleque: in can nymañ juh iulque, in juh hacatque inpetlatique, inje paltique, in ihquimjxco ionj, in ihquin nacastlapo: auh in ihquixox, in ihquimjpit: in can nymañ iuh iocologue, iuh oakvaloque: in ipan hacatque, in ipan maltique: in juh can ca into nal intecutizque, in tlatoctizque, in mjtca, in monethaxonjoa, in motlatlapi tsalcan muchioazque, in ihquin moustiz, in ihquin mopatitlotiz, in ihquin monaoaltiz in mjtictitlatot, in mjtlatenquixtilizque, in qunana in jquizque, in copachtizque, in jquiscactizque: auh in qujlatenquixtilizque in motechiuhcauh inteteu inna, in teteu inta, in veue tcut in lexico, in xiuhtetsagualco magyroc in xiuhtecutli in teuhaltia, in tepapaca: auh in qujcotonjlia, in qujcauilia in jpolivia in jaco qujcata in cujtlapilli, in atlapilli in maceoalli. Tlacatle, Ho quee, naoaquee: otlacauh quj in

libro 2.

de las ceremonias



cehtacah quixipeuh malli. Sub  
 yoan yniquac y. Haacopiloaia:  
 aub ynua oc concholtraia. y  
 niquestepol malli: yoan meca  
 xialli, astapathactontli itechpil  
 cac. Sub inquestepolli. amathia  
 quiquijmibaia, quixaiaca  
 traia: aub ynjn motocaitiaia,  
 malteud. Sub yniquac haaco  
 piloa, teaanotzaia, thahaquabo,  
 atioa; in ueuetque. y lamatzit  
 zin, haacana: Sub nocahacah  
 ic muchiohaia, ynjlauze thoma  
 nj, haauja, chocholea, moteli  
 mana, quajantitoguc calpul  
 ueuetque. Sub izquiatecontica  
 quijmana ticaveti, conthahic  
 hecalhuja: catepan iuhquijma  
 conmjna, nijmanic conj: aub y  
 noconje, ic nocconj coniquanila,  
 can noiuh conchua, can ic noiuh  
 quichua, ynje exan, can no  
 yuj, ynic nauhcan: vncan on  
 namj icx ich noiuh quichuaia  
 ynizqujthamantli: ca ued cemil  
 huytl, in muchnoia. Sub in euj  
 catl, amo mocacua in ajea  
 cali, ixquichua thanytiab, y  
 nipan veytozotli.



del cimatl. . f. 133.

¶ Ay una rayz que sellama Cimatl la yerua desta rayz llama se qua vecoc, y tambien sellama Cimatl. Esta yerua haze vnas a vas que son como los frisoles grandes y son frisoles syluestres. Esta yerua he chia las ramas largas y paradas sobre la tierra. La rayz desta yerua si se come cruda o mal cozida prouoca a vomito y acamaras y mata. Contra este daño es el unguento amarrillo que sellama axi echado por xistel. Para comer estas rayzes es menester cozerlas dos dias que yerua siempre.



¶ Ay una yerua que sellama hamolli, tiene las hojas como espadanas chicas y tiene el tallo blanco las rayz desta yerua, es como xabon para lavar la ropa. Y con las que son delgadas, llaman lacabeca y tambien son como moza para enborrachar los pees, y si alguno bebe desta rayz o muere o resibe mucho daño. Y si alguno abebido a alguno san guisuela y latiere en el cuerpo le viendo el agua desta rayz llama ta.

¶ Cimatl tlare, shoatl: mixiuhio itica, quavaco, telnoitica cma quislil: velichquyn aiecotli, quitoa: qujli thatta maiecotli, moda Hanynanij, mo vivilana nj, xochio, exoro, eio. Injnel hoacio in xoxouhquj, in noce a mo vel icuic tehicottalti, te apihalti; mjcoanj. Injc mopa levia mocimasi: iehoatl mo hoionja inaxim, iamanguj iustlapampa iaub. Auh injc moqua in mtlaneshoatl: omp hujtl in thatta, injc vel icuel: auh achupa hoionj, quagua laca in atli, tequixquyo; atoto nijstilan in nocontoma; njno cimaria, njc cimaria.

¶ Tra molli, kulpatlatic, qujio io; iztac mixochio, tlapa conj in veve in totoma oac tebon te peuh, tequaxipeho in tepitv in pitadac tlaparoni, ne amovilonj: tlapaca, tlacohpaca, tlacohque tra: nicamo, huya, njnamo via: miollo que, in amollo tlapatvi, icnjquj: hujub quj njmjcti, ca icmacti in njmjcti. Auh in a qujz acujcujia thm qujstolca rehoact conj in amolli icnjquj njcti o. se acujcujia th.

Fig. 23, Códice de a Cruz-Badiano. Códices de México num. 7. Colecciones de la Biblioteca Naional de Antropología e Historia. INAH. f. 9r





Fig. 24, *Códice de a Cruz-Badiano*. Códices de México num. 7. Colecciones de la Biblioteca Nacional de Antropología e Historia. INAH. fs. 8-9



Fig. 25, *Códice de a Cruz-Badiano*. Códices de México num. 7. Colecciones de la Biblioteca Nacional de Antropología e Historia. INAH. f. 9. Amolli Detail Text

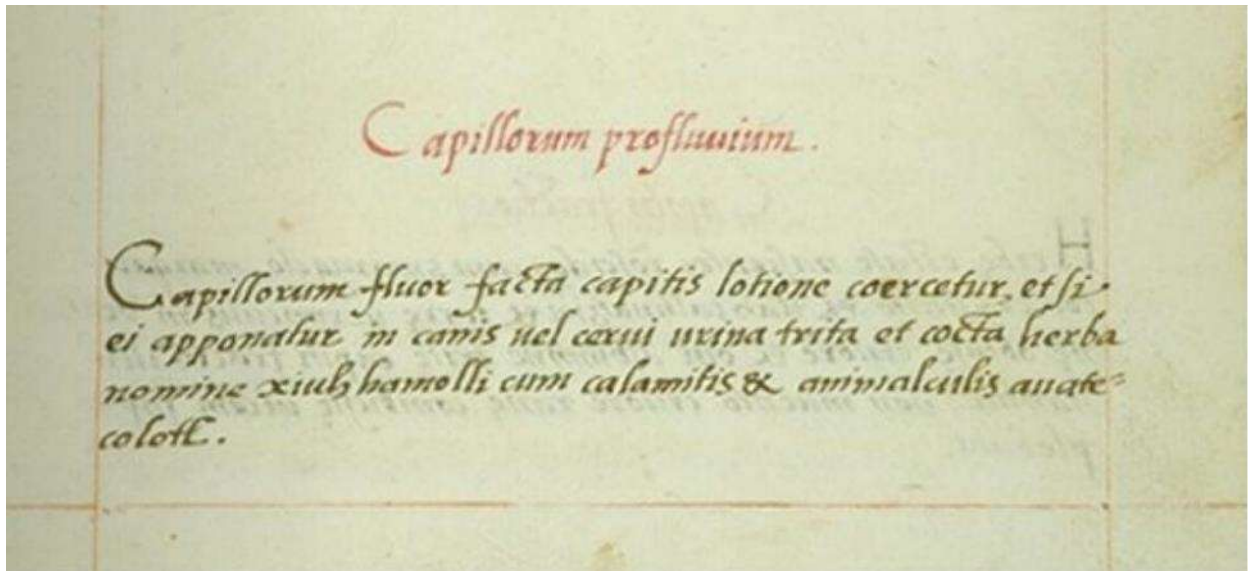


Fig. 26, "*Sapindus saponarius*, *Stegnospermas halimifolium*" according to Anderson Dibble 1982, bk XI: 133, footnote 5. *Sapindus saponarius* [http://plants.usda.gov/java/largeImage?imageID=sasa4\\_002\\_avp.tif](http://plants.usda.gov/java/largeImage?imageID=sasa4_002_avp.tif)



Fig. 27a, Gates 1939[1552]: 122, "Saponaria americana "A small plant whose root yields a glutinous lather and supplies and excellent soap."

<http://www.rarepalmseeds.com/imageslow/SapSap.jpg> see also [Sapindus saponarius flowers](http://johnsilvius.cedarville.org/prairie/saponaria.jpg) found here: <http://johnsilvius.cedarville.org/prairie/saponaria.jpg>





Fig. 27b, Gates 1939[1552]: 122, *Sapindus saponarius* flowers:  
<http://johnsilvius.cedarville.org/prairie/saponaria.jpg>



del principio

de los dioses. fo. 6

manera, se acabaua, el serujcio,  
y penjtencia, de los que comjor  
el cuerpo del dicho vitsilobuchtl.  
que se llaman teuquaque, de a  
quel año.



concuji inatit xoxouic xicaltica, aui  
inoxoxopilo, atit, ixpan canmana,  
catepan concuj, itzaatit xoxouh  
quj, caltic, nau conaquia xical  
co nappa in concui atit icquixa  
mja ic caltia. aui inoaxatit, ni  
man ierocappa itharuquj, qui  
napalox, cenca quithapit chiliaia  
aui njman iei quipica imite  
pauoc vmpa conthalia. aui iniqe  
oconthaito, njman iei memaia  
oa, viviloa, ie vncantson quica,  
inimecaualis, injntlamacaualis,  
inteuquaque cexivih.

¶ Parrapho quarto, de  
otto tributo asas pesado:  
que pagauan los que co  
mjan, el cuerpo de vitsi  
lobuchtl.

¶ Injc nauj parrapho vncan  
moteneoa inec centlamantli  
tequilt vel etic, in quichioaia  
inichoantin quicaliaia inpa  
caio Vitsilobuchtl.

En acabando el dicho año, fue  
go començauar, otros mance  
ros, ase obligar a seruir, y ha  
zer penjtencia: segun la orden,  
y costumbre, que tenjan de co  
mer, y recibir el cuerpo, del di  
cho vitsilobuchtl: y juntamen  
te los ministros de los y dolos, q  
se llaman aspuler: hazian gran  
serujcio, y penjtencia, de que  
recabian grandissimo agraujo,

¶ Ino centlamantin vncan co  
pcaaltia, in moaxoa inspan  
xivih teuquaque, canjuh o  
hato catiuh, cecexiuh tica, ca  
nje nemamacotiuh, cannea  
cavililotiuh, nepapathalotiuh,  
nepapathalo: aui canienovi  
incalpoleque, nocexivih inmo



del dios

les, o entendian en algunos tra-  
tos de mercaderia.



¶ Capitulo segundo de la  
estimacion, en que era te-  
nido, el dios llamado Titla-  
caoa, o Tetzcatlipuca.



El dios que se llamava titlaca  
oa, dezian: que era criador  
del cielo y de la tierra, y era to-  
do poderoso: el qual daua a los  
biuos, todo quanto era menester,

Titlacaoan. folio 7

ma alhaia, mahamoviaia,  
yoan moxocoqualiaia, quichi  
oala xocotamalli; yoan tlaloni  
lli, anoco itscuintli quimieti  
aia quiquaia, yoan tlaxanua,  
icquincxtiaia incaquimotla  
xilique, imicampa ovetz, inpi  
tequjuh, imaiatiqui tlaxanalli  
inmeacalisti, injuhqui opauh  
tiuetzque, icpacca, icoxca oa  
lica oalpaccaica, aoctle quima  
mana canivia inmotacoltia  
inquitenea incochcaiatl, imc  
uhcaiotl, anaco tlaltama, in  
noco tlachiqui, inaco motlian  
quis inchoacan tepchoacan:  
aoctle quijolintacotih, seixquich.

¶ Inje vme capitulo, itechpa  
tlalona inquerin Dios vel ipa  
quimatia inichoatl in mltoa  
Titlacaoan, anoco Tetzcatlipu-  
ca injuhquima ipan quimatia  
ce dios.

Inichoatl inmotenea titlaca  
oa quitoaia caichoatl ihuica  
oa tlaltipaque, ichoan mu-  
chi vel quichica: yoan muchi

Fig. 30, Sahagún 1979 [1575-70]: vol. 3, bk. XI, f. 245r, ©Biblioteca Medicea Laurenziana

libro undecimo

Nicalnepanolqueza, njnocat  
 nepanolitia, njcalnepanoa, nj  
 no cacalnepanolitia. Casas con  
<sup>nuevas</sup> <sup>unas</sup> con otras.  
 q Calhuivilaxchi, q, n, mjec  
 calli, cacenmanj, ololuhitima  
 nj, repeuhitmanj. Nino cal  
 yivilaxtia, njcalhuivilana.  
<sup>Casa redonda sin esquinās.</sup>  
 q Caliaualli: quistosnequj,  
 calli iaoaltic, a campa nace,  
 acalnacasio. Nicaliaualchico,  
 njcaliaualqueza, njcaliaual  
 loa. Casa generalmente.  
 q Chamthi, quistosnequj, calli  
 pipiltotontin, ioan in aavilla  
 toa in Hatoal, canneaxcatiliz  
 tica in vel nistoa; in iuh nistoa  
 nochan, can muchan, ichan  
 in Hatoanij, Hatoanij ichan.  
 Noitehcopa Hatoa in ostotl,  
 quauhtla, cacatla, atlan, Ha  
 coioctli; in iuh nistoa, in tequa  
 nj, in coioct, ostoc ichan in to  
 chin, in macatl, quauhtla i  
 chan, in michi atlan ichan,  
 in coad, in quimjchi Hacoio  
 co ichan. Casa donde se banan  
 q Temazcalli: pachtontli, pa



Fig. 31, Sahagún 1979 [1575-70]: vol. 3, bk. XI, f. 93r, ©Biblioteca Medicea Laurenziana

*delas arañas*

*fo. 93*

*foce ayne que: mochi que coa,*  
*mochi pan vetzi: vel motia tla*  
*motia, momamaia vi in tveca*  
*qualo, vel mochi thiaoa in*  
*nacaco, inje pan vetzi in tveca*  
*tenqualatli: vel tlatla in jiol*  
*lo, vel tveca. Inje mopale*  
*via: quipapachoa, ipan mo*  
*tlatlatia: voan icicuhca quj*  
*thichinilia, voan qujtema,*  
*voan inje in quj ochi: in ca*  
*caihio eilhuytl, na vilhuytl*  
*in qujcaoz, in achi ceviz. In*  
*in tveatl: vel teihio ti inje*  
*qualac, iete in nanaoati: ca*  
*vna con tlatlatia, in canjn*  
*ca manaoauh, icpati, ie*  
*ce canpanj: njman ieichoatl*  
*in cooacivizati, axio, ttillo,*  
*ie monatloa: ca qujcevia.*  
*In in tveatl: vmpa nemy in*  
*tlatotonia, iuh qujn niftva*  
*tlatomjtl: in aqujn qujmi*  
*naz, auh can thia vacatla*  
*mjz, can ixicatvz in vna*  
*qujmi na: auh cenca tlatiaz*  
*in jiollo, in nacaco: vel tva*

*205*



libro decimo.

siendo bien cozidas, y sangrar  
 sea de la vena del coracon por  
 que nose empeore, y se viva  
 el enfermo, se cuando se jora a  
 poco: o se le haga alguna hinchu  
 zan en la barriga, o escupa san  
 gre, o ande tosiedo, y para  
 esta tose, o el escupir sangre,  
 bouer sea el agua de la raryz lla  
 mada cocauyepalli, coziedo se  
 muy bien, y ha se de dexar en  
 tibiar, y asi bouer se dos,  
 o tres vezes, y quando esto no  
 bastare, purgan sea, el enfer  
 mo, o echar le en alguna  
 medicina



intanochiollé m cená chichic,  
 ichoatl inmicauit, ioan maco  
 cauhquij: auli niman iechoatl  
 mtlapal ezquavid, isan qichua  
 tic, auli quijaz in estli, ichoatl  
 inmoqoz, in totollo mcaato, in  
 ic amo catop in vei cocolizli  
 mocuspaz, aco quawaquij, in  
 poaacaz, estli quijchidiaz, in  
 anoq andadlaztinemj: auli  
 inje pati in totolatinemj, in  
 anoq estli quijchidiaz: conij  
 incoauic pati, mo quawquid  
 tiaz, auli ayanauquij in conij,  
 aco vppa, expa inquij: auli in  
 thauvel pati, in thauitipocaua,  
 in thanoce icquawaquij, niman  
 icichca conij milanoquijonj,  
 ioan icaytlapampa mormaz  
 icpatis.

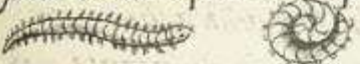

Le sobre dicho fue examinado los  
 medicos mexicanos cuyos nombres  
 se siguen

- Joan perez, de sanct Pablo
- Pedro perez, de sanct Joan
- Pedro hernandez, de san Joan
- Joseph hernandez, de san Ioan
- Miguel garcia, de san Sebastian
- fran<sup>co</sup> dela Cruz, de vitanco
- Balthasar Juarez, de san Sebastian
- Antonio martinez, de san Ioan



**delas piedras medicinales** fo. 180.

sobre el lugar donde duele la go-  
ta quitar el dolor. Tambien son  
buenos para los que se comen los  
dientes o las moelas o les duelen  
molidos como esta dicho y mezcla-  
dos con tinta y puestos en la quexa-  
da donde esta el diente que se come  
o duele quitase el dolor. E stos gu-  
sanos en todas partes los ay.

150.

Van en esta tierra de los baños,  
para muchas cosas, y para que apro-  
ueche a los enfermos a se de calentar  
muy bien el baño que ellos llaman Te-  
mazcalli y a se de calentar con buena  
llenã que no haga humo: a provecha.  
Primera mente a los convalientes de  
algunas enfermedades para que mas  
presto acaben de sanar. Tambien apro-  
uechan a las preñadas que estan cerca  
del parto: porque alli las parteras. las  
hazen ciertos beneficios para que me-  
jor paran. Tambien a provechan pa-  
ra las recién paridas para que sanen

moia callali tixetzi, asceno molinja,  
asceno moapocaca; iuhqujn ma  
omje. vncan son tecon: inixten iuh  
qujn coatenti iten, mixte solo tli  
totenti: mo quj tli, quaquau te  
tone: in cio ati, atle iqu aqu auh:  
can iquac in quica, in nenemj xo  
partia: iqua miequjavi: cocoiac,  
iuhqujn tli tli; aco cinavi, macuil  
li, in quac in motec: oco tli  
mone lo. lic mo po. tonja in can in  
onoc coacvis tli: can parij moteca.  
dub in qujn tlanqualo: tli tli mo  
neloa, parij ommo teca; ic pati. ca  
novian in namj nispán, anoco te  
pepar. 150.


Te mazcalli: iniquac qua vlt. tla  
tla, cenca vel tonje, yvan amopoc  
io: auh iniquac in can tliacalli tla  
tla, cenca yocioa, amono cenca to  
tonje: amo cenca qujn palevia in  
coaxque, can qujn ton te coreca  
in coaxque. vncan calaquj in  
iepari; vncan tli iuh quica in in  
nacalo: vncan iuh qujn na tli  
ate in in nacalo. in in tli tli  
io. Caro vncan calaquj mo of tli  
in iovei inixti: vncan qujn pa

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*y philosophia* *moral* fo. 139.

que la enterrasen: donde ay cosas que los confesores ay, harta necesidad, que las sepan acuestas, que ansi murian de parto llanzauan mocioa quez que: y destas sale el llama al occidente cioatlapa.



**Y** si por ventura, los padres de la paciente no permitian ala partera que despedacase la criatura: la partera la cerraua muy bien la camara donde estava, y la dexaua sola. Y si esta muria del parto llamauan la mocioa quez que, que quiere decir muger valiente: y despues de muerta llanzauan la todo el cuerpo, y xabonauan la los cabellos, y la cabeza, y vestian la de las vestiduras nuevas, y buenas que tenja, y para llevar la enterrar, su marido la lleuauan acuestas, a adonde la aujan de enterrar:

*injintson. ancoz itla inuacito: iuhqujima redajujas ipan quej mlatia: auh iniquac inatimo jiji txa, achitpa qujnqujshata. Auh iniehoantia, intepiaque: mome quej qujmomachitizque; inisquj ham. mli. in: iniehoantia inij ti icmiqua, qujntociontia: mo cioaquez que: auh in vapo ancala que tonatiah, qujliehoatl. icquj tociontia cioatlampa.*

**Q** *Auh inlacamo motlapalaa pilhoaque, inqujchias in, ticid: njman vel qujtrahaqua in cioatsin tli. Auh inlatemiquj ulti, mij toa, motociontia: mocioaque hquj: auh in doimic njman caltia, camovia: qualli, auh inicujic inconaquia chicid, vipilli: auh inic qujvica qui tocativi, qujmama inimamic, hlatontiah, iton qujquentiah: auh moentlaha intitici ita matsihin: inic qujvica inchi*

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de las enfermedades del cuerpo fo. 105

de las venas. asiendo se mudo  
y mezclando se con pepitas y chi  
le. y piscina de amez siempre  
fante. y los coxos, y mensajeros  
que van muy deprecia saculen  
beues esta agua caminando pa  
ra que no se les abra el pecho.



¶ Para las mugeres que tiene  
para leche en las tetas: si a ve  
ces a molez la raxz llama  
da caninal quistax, y beuer la  
dos, o tres vezes. saliendo del ba  
ño; y labando se primero los  
pechos, con el tequixquite, con  
la qual primera leche que sobre  
viere desta cura, la cxiatura  
se cortó para al gun tanto. y pa  
ra acaballe de purgar se ciabu  
era dar le dos, o tres gotas desta  
agua, en papando veyros de al  
godor, como esta dicho. El ama  
no coma aguacates, y beua el  
agua cozida de calabacas blan  
cas, o de la veyra llamada cu  
stax seuitli, y coma asado el  
begajo de las perzillas, o comer  
el izcavilli.



iamanquj conq. anoco vetli  
ipam, oppa, expa m conqz, ano  
co ichoatl qajz, mjtoca, espa  
thi, motziorija, chillo, aiaoaact  
io. ipam quaqualoca, imman  
qaj conqz, occena qustio vtz.  
amo teuhca tlaquaz mmothi  
lea, inmolizlenj, qustio m  
vthica.

¶ Inocmameia chichioa:  
conqz, motzokona, mltocel  
oatl, mtsalanal qustic, niman  
tequixquite, quipacas m  
chichioal, a o temasallo, m  
expa mqujs, aui moal meits  
mian cuj, m meiaz, occapi  
tsalliz, mp, tonli, le moque  
vixopulli conqz, mjtoca, m  
qupaxitaxolietis, amo qaj  
quaz m asaatl, ioan no, conqz  
mztia, aiaoaact, y o conqz, ano  
co conqz, ichoatl conqz, vetli ipam  
cuistax seuitli, ipam motemas:  
auh, mo o ichoatl qajqujs  
msticupitapulli, motzcatzaz,  
imdoe ichoatl yajquaz mis  
adilli, qusticteueriz mjtoca,  
ano co ichoatl conqz, mtoon  
dichi inelo aiaoaact, vetli ipam ipam

## **Chapter Two: Spanish Concepts of Health and Interpretations of Disease**

### **Introduction**

#### **Ancient Roots of the European Concepts of Health and Disease**

*Humoralism: A Balance of Fluids*

*Contagion in Ancient Texts and Early Modern Writings*

*Diseased Environments on Earth and in the Stars*

#### **Diseases, Healers, and Institutions in Spain and New Spain**

*Interpretations of Epidemics in Early Modern Spain*

*The Training and Licensing of Doctors in Spain*

*Surgeons and Facilities in New Spain*

#### **A Surgeon serving Indigenous patients: Alonso López de Hinojosos**

*The life of López de Hinojosos*

*The Surgical Treatise by López de Hinojosos*

#### **A licensed doctor in the time of epidemics: Augustín Farfán's treatise**

*The life of Farfán*

*The Medical Treatise by Farfán*

#### **Christian Connections to Bodily Health**

*Ritual Purification in Christianity*

*Chroniclers Describe the Early Modern Epidemics of New Spain*

#### **Sahagún as Witness to Epidemics and Organizer of the Florentine Codex**

*The Perspective of Sahagún*

*Attack on Sahagún's Projects and Loss of Indigenous Scholars to Disease*

### **Conclusion**

## **Introduction**

Spaniards brought to the Americas ideas about the body and the nature of disease rooted in their cultural traditions. This chapter identifies some of those ideas and their ancient precedents that influenced how Spaniards interpreted the epidemics in New Spain during the late 16th century. Chapter two begins with an exploration of the foundational texts concerning European concepts of disease and medical practice. It then evaluates the writings of a surgeon and a doctor who, after traveling to New Spain, witnessed the destruction of epidemic disease. Then follows a discussion on the Christian precepts that the Spanish chroniclers and medical professionals used to explain the cause of the epidemics. The friar Bernardino de Sahagún explained his understanding of the epidemics in the Spanish-language sections of the Florentine Codex (FC). Each section highlights the medical frameworks of Europeans and highlights the topics held in common with Nahuatl concepts elaborated in chapter one. As in the previous chapter, this one examines not only descriptions of types of sicknesses but attempts to define broadly concepts of health and illness. Specifically, I analyze western discourses on bathing, blood, the heart, the breath, and the corporeal connection to supernatural or celestial forces. My analysis reveals how early modern Nahuatl and Spaniards struggled to understand widespread illness. The role of supernatural forces, such as a god, in causing disease appeared in the writings of both religious and secular officials. Their writings show how both Iberians and indigenous people sought to understand why so many people had died in the epidemics.

The conceptual models at the disposal of doctors and clergy in the early modern world were often limited to explanations of illness in Greek, Roman, and Islamic texts. The works of Hippocrates, Galen, Avicenna, and Rhazés were routinely consulted to find causes for bodily problems. The authors explained bodily health or internal equilibrium through theories of

humoralism. They also pointed to the natural environment as a source of potential beneficial or negative factors for human health. Places designated for healing such as hospitals, pharmacies, and convents were newly developing in the late-sixteenth century Americas. Spaniards or *peninsulares*, people who were born in Spain but lived in the colonies, often ran these institutions. Many Spaniards arriving in New Spain may have lived in an epidemic-ridden city, or perhaps someone close to them had dealt with disease first-hand. Yet this familiarity did not prepare them for the many deaths caused by epidemics in New Spain.

Surgeons, doctors, friars, and other Spanish writers expressed shock when describing the devastating effects of disease in New Spain. The insights of these colonial officials reveal the urgency of the epidemics and the overall health of the viceroyalty. The surgeon Alonso López de Hinojosos dedicated an entire section of his treatise of 1578 to the pestilence of New Spain, even though the work was dedicated solely to surgical procedures. Augustín Farfán, a doctor licensed in Spain who traveled to the Americas, wrote in 1592 about the necessity for all people, regardless of medical training, to recognize *viruela* or smallpox and know how to treat it. Despite the medical nature of the catastrophe, religious authorities, in addition to doctors and surgeons, routinely evaluated and treated those suffering from disease.

Other Spanish writers puzzled over the meaning of the widespread disease, judged its causes, and situated it within the trajectory of the colony in relation to Spain. Early Christian writers delegated responsibility for the body to doctors, but this never stopped them from citing divine providence as the cause of an epidemic. Several Spanish chroniclers frankly relied on Catholic Christian notions to explain the epidemics of New Spain. The views of the Franciscan Bernardino de Sahagún, organizer and editor of the FC, are vital to understand the ecclesiastical interpretation of disease in indigenous communities. Sahagún wrote on the epidemics in the



prologues, notes from the author, and commentaries written around 1579 in each of the twelve books of the FC. His dismal observations of the health of indigenous communities and the pitiful efforts of colonial authorities to provide aid betray his dissatisfaction with colonial administration. Sahagún used the epidemics as a platform to throw light onto New Spain and its inhabitants during the spiritual and material struggles of his era. My examination of ancient and early modern writers who commented on disease in this chapter is by no means exhaustive. The authors who chose to write about how to maintain the vital essence of human life, or health, are overly-represented in the texts I survey because they are useful to compare to Nahua concepts. So, too, are the writers who conjectured about the way illness spread and the reasons for poor health. Greek and Roman writers, because their texts were scrupulously maintained and translated, generally dictated European medical frameworks.

### **Ancient Roots of the European Concepts of Health and Disease**

The epic tale of *The Illiad* by the Greek poet Homer in the eighth century BCE began during a wartime plague. Homer alluded to the plague-bearing arrows of the enraged god Apollo that afflicted mules and dogs before humans. The Greeks considered burning an offering of a hecatomb or one hundred cattle to appease the god. Homer explained that the sacrifice did not assuage the provocation that led to disease, and that the revenge of “plagues shall spread, and funeral fires increase.”<sup>300</sup> The Greeks recognized that in certain conditions, disease was more likely to occur. The disorder and violence of war did nothing to prevent the illness. Homer wrote that Apollo caused the plague and that only through ritualized sacrifice would the affliction

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<sup>300</sup> Homer, *The Illiad of Homer* trans Alexander Pope. Project Gutenberg Book, 2006, 10.

cease. Although Greek scholars laid the foundation for early modern medical inquiries they also participated in god appeasement to secure their well-being.

The Greek general and historian Thucydides recorded similar sacrifices to remedy the plague of Athens from 430 to 427 BCE. The ritualized offerings made by Athenians did little to stop the suffering: “whatever supplications were offered in the temples, whatever recourse to oracles and religious rites, all were insignificant...expedients of this nature they totally relinquished, overpowered by calamity.”<sup>301</sup> The plague struck the city while it was under siege by Sparta just after the Peloponnesian war. Thucydides took care to document the symptoms and the geographic course of the plague. He noted the remedies that the victims craved and how few people remained to take care of them. Those suffering from the disease “longed for nothing so much as to be plunging into cold water; and many of those who were not properly attended threw themselves into the rain-tanks”<sup>302</sup> For Thucydides, bathing in cold water was not an appropriate remedy and only occurred when victims were neglected. Robert Littman acknowledges the impact of the plague, stating “it was economically and socially devastating...the combination of disease and war depopulated Athens and changed Greek history, which might have been very different had Athens won the war.”<sup>303</sup> The plagues in Athens, like in Tenochtitlan, and human reactions to them changed the course of history. Only by understanding the medical frameworks for illness and health can we understand how people reacted to epidemics.

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<sup>301</sup> Thucydides, *Thucydides* trans William Smith. London: A. J. Valpy, 1831, 176-7.

<sup>302</sup> Thucydides, *Thucydides* trans William Smith. London: A. J. Valpy, 1831, 178.

<sup>303</sup> Robert J. Littman, “The Plague of Athens: Epidemiology and Paleopathology” *Mount Sinai Journal of Medicine* 76, 2009, 458.

The Greek philosopher Hippocrates and his writings influenced the medical framework of most of the western world. Of the works attributed to the author written from 440 to 340 BCE, one focused on disease in specific locales. The treatise, *Epidemics*, consisted of seven books of the beliefs and observations made by itinerant doctors visiting the sick from the fifth to the fourth century. The notes recorded the climate and illnesses found in various localities over the period of a year. They reveal the general prognostic tools and the medical principles followed by Greek healers. The healers recommended bathing only for those in good health; in their opinion bathing only worsened illness. In case eleven from Book VII, during winter a woman fell ill from fever and headache and “the cause seemed to be a chill after a bath.”<sup>304</sup> Another woman who suffered from similar ailments worsened during the setting of the constellation Pleiades because she “bathed as though she was cured.”<sup>305</sup> Fever and then chills intensified and killed a woman and “it seemed to come after a steam bath.”<sup>306</sup> In Book V, the author described a man who suffered from terrible itching and sought relief from the baths at Melos. The warm baths cured his skin issues but “he became dropsical and died.”<sup>307</sup> Although the *Epidemics* treatises are cited less as foundations of Greek medicine, another work from the Hippocratic corpus addresses bathing and health.

In contrast to the Greeks who looked to Apollo as the source of some illnesses, in his text *On Sacred Disease*, Hippocrates rejected the premise that epilepsy had divine origins, and in doing so separated medicine from religion. He engaged philosophical ideas about nature and

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<sup>304</sup> Hippocrates, *Epidemics* ed and trans Wesley D. Smith. Cambridge: Harvard University Press, Vol. VII, 1994, 315.

<sup>305</sup> *Ibid*, 327.

<sup>306</sup> *Ibid*, 355.

<sup>307</sup> *Ibid*, 159.

linked them to medical practice focused on individual susceptibility to illness. Hippocrates sneered at the charlatans who invented cures for illnesses that they did not understand, and instead ascribed disease to divine powers. He wrote that those types of healers “established a method of treatment that secured their own position...they forbade the use of baths and many foods that are unsuitable for sick folk.”<sup>308</sup> He pointed to the restriction of baths and foods as a way that fake healers concealed their lack of knowledge. He finished his excoriation of false doctors in an explanation of the brain as the place that received the most breath, with only smaller amounts of breath arriving in the lungs and belly. Hippocrates linked one's health and air intake in several other works.

In his treatise, *Breaths*, Hippocrates explained that man and animals needed nourishment from wind, solid food, and drink to live. He considered the winds, once inside the body, as breath. Winds moved into the body bringing life as breath but winds also caused the seasons and the movement of the constellations. He explained that for mortals the breath “is the cause of life, and the cause of disease in the sick.”<sup>309</sup> Hippocrates described two types of fevers, the first was epidemic and called pestilence, and the second attacked only those with a poor regimen (poor diet, exercise, and complexion) and were ultimately caused by airs or winds. He stated that “breaths are seen to be the most active agents during all diseases; all other things are but secondary and subordinate causes.”<sup>310</sup> Hippocrates pointed to the importance of air and blamed bad air or miasmas for several diseases. Theories on bad airs, commonly known as miasmatic

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<sup>308</sup> Hippocrates, *Hippocrates: On the Sacred Disease* trans W. H. S. Jones, ed Jeffrey Henderson, Cambridge: Harvard University Press, 1923 Vol. II, 141.

<sup>309</sup> Hippocrates, *Hippocrates of Cos: Breaths* trans W. H. S. Jones, ed Jeffrey Henderson, Cambridge: Harvard University Press, 1923 Vol. II, 231.

<sup>310</sup> *Ibid*, 253.

theory, held that the air could become polluted or noxious as the result of a wide variety of events or sources. Disastrous events such as earthquakes corrupted airs. Miasmas arose as foul odors from garbage and waste on streets, or the particularly offensive smells from industries such as fish mongering or tanning. The direction, the smell, and the temperature of winds had lasting effects on human health.

The Hippocratic text on climate and health, *Airs, Waters, and Places* read as a guide for a physician to assess a new place. The first chapter encouraged the newcomer to consider the effects of the changing seasons and then to assess the hot and cold winds, followed by an evaluation of the surrounding waters. Using these measures, the doctor “will be able to tell what epidemic diseases will attack the city whether in summer or in winter...knowing the changes of the seasons, and the risings and settings of the stars, with the circumstances of each of these phenomena, he will know beforehand the nature of the year that is coming.”<sup>311</sup>

Hippocrates described various combinations of wind and town location and the effect such factors had on the inhabitants. He then considered the constitutions of certain people and the water they imbibed. The waters, whether from springs or from the hills, heated or sparkling, influenced the internal organs and health of an individual. The wind affected the waters, for example a certain river might draw strength from the north wind. Yet mixing different waters from different winds could lead to illness, such waters “leave a sediment of mud and sand in the vessels, and drinking them causes the diseases [kidney disease, stone, strangury, and

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<sup>311</sup> Ibid, 73.

sciatica].”<sup>312</sup> People’s ailments sprung from their natural environment and the balance of various physical forces within their bodies.

### *Humoralism: A Balance of Fluids*

The descriptions in *Airs, Waters, and Places* show Hippocrates’ with the climate and the balance of humors. He focused on the balance of body fluids known as the humoral system.<sup>313</sup> In this system many body fluids, or humors, appear only at the onset of illness. For example, yellow bile and phlegm appear in greater proportions during bouts of sickness. According to humoralism “diseases were not discrete ailments brought about by distinct causative agents as we understand them.”<sup>314</sup> Hippocrates linked climate to the natural state of bodies connecting the cooler climes of the north with phlegm and southern climates with heat and bile. In addition to these two humors, blood and black bile were also included in the Hippocratic list of humors. An ailment that derived from an excess in blood, such as menstruation or nosebleeds, deserved a therapeutic tool called blood-letting. The removal of excessive blood which would balance the humors and restore health. Hippocratic humoral therapies, according to Beate Gundert, “aims at reversing the pathological process, removing the harmful substance, restoring the disturbed balance, and repairing physical damage.”<sup>315</sup> Hippocrates and later medical philosophers linked the four

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<sup>312</sup> Ibid, 95.

<sup>313</sup> Some Anthropologists, such as George Foster, argue that the Hot-Cold Dichotomy found in Mesoamerican practices is merely the adoption of Spanish practices following the Hippocratic humoral system. On the other hand, Alfredo López Austin and other scholars claim the pre-hispanic origins of the practices. See Alfredo López Austin. *Cuerpo Humano E Ideologia: Las Concepciones de Los Antiguos Nahuas*. México: UNAM, 1980; See also George Foster *Hippocrates’ Latin American Legacy: Humoral Medicine in the New World* Amsterdam: Gordon and Breach Science Publishers, 1992.

<sup>314</sup> Kristy Wilson Bowers, *Plague and Public Health in Early Modern Seville*. Rochester: University of Rochester Press, 2013, 32.

<sup>315</sup> Beate Gundert, “Parts and Their Roles in Hippocratic Medicine” *Isis*, Vol 83, No. 3, Sep. 1992, 462.

humors with the four elements found in Greek culture; yellow bile with fire, black bile with earth, water with phlegm, and air with blood, once again linking climate and health. The balance of the humors was achieved by evacuating the abundance and encouraging the remaining humors to attain equilibrium and maintain a healthy life.

Following Hippocrates, Plato developed three functions for the maintenance of life: reason associated with brain, spirit associated with the heart, and appetites associated with the liver. His conception of a tripartite life forces would define how Mediterranean healers imagine the soul. Health depended on moderation to keep one of the functions from dominating the body. However, his writings did not connect ideas about purity or cleanliness with specific organs. In discussing a man in good health, Plato recounted that he attained an internal harmony when the appetites were at rest and “having soothed the spirited part of the soul...and roused to action that third part, in which wisdom dwells, he will thus take his rest.”<sup>316</sup> Plato attributed good health to appeasing the appetites, spirit, and stimulating the intellect. Marjorie O’Rourke Boyle points out that no Platonic text described purity in relation to health. He did not focus on bodily cleanliness “nor did Plato’s writings advocate purity of heart. Purity in his philosophy was a complex condition related to immateriality, particularly to the soul.”<sup>317</sup> Plato’s student Aristotle focused on observations of the natural world and less on the influence of the spirit. Although Aristotle’s writings reflected his biological observations, he remained firm that the heart functioned as the central animating force for the human body. According to Scott Stevens, Aristotle’s understanding of a vital force “most like our term *soul* is found throughout the whole body, it

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<sup>316</sup> Plato, *Republic IX* 571d-572b.

<sup>317</sup> Marjorie O’Rourke Boyle, “Pure of Heart: From Ancient Rites to Renaissance Plato” *Journal of the History of Ideas*, Vol. 63, No. 1, Jan 2002, 44.

emanates from the heart, which is the seat of life and heat.”<sup>318</sup> In later sections in this chapter focus on how the heart functioned in the writings of Europeans and its relationship to the tripartite soul.

Following Greek theories, the Roman physician Galen adopted Plato’s tripartite soul and zealously prescribed blood-letting as a therapy and prophylactic. According to Galen, the liver, brain, and heart each processed the breath for all manner of life-giving actions. In his text *Ars Medica* he explained six factors influencing health: “one from association with the ambient air, another from movement and rest of the whole body and its parts, a third from sleeping and waking, a fourth from those things taken in, a fifth from those things excreted or released, and a sixth from the affections of the soul.”<sup>319</sup> He insisted that a healthy person monitor his regimen of eating, exercise, and emotions. When Galen declared blood as the “most dominant humor, the practice of venesection [blood-letting] gained even greater importance.”<sup>320</sup> Galen narrowed his focus to manage the humor of blood; his therapies rid the body of excess through blood-letting, which he believed was necessary because digestion created blood that several organs used but the excess of the humor caused illness. The theories of the Greeks and Romans dominated Mediterranean and broadly western medical practice. The medical theories of antiquity were translated and implemented by Muslim philosophers such as Rhazes; these same theories reappeared in the medieval West and lasted until the revival of formal medicine in 1100 CE. Yet, ancient medical texts and early modern writers did not always point to personal regimen and

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<sup>318</sup> Scott Manning Stevens, “Sacred Heart and Secular Brain” in *The Body in Parts: Fantasies of Corporeality in Early Modern Europe* David Hillman, Carla Mazzio, eds. New York: Routledge, 1997, 266.

<sup>319</sup> Galen. “Ars Medica” in *On the Constitutions of the Art of Medicine. The Art of Medicine. A Method of Medicine to Glaucon* Ian Johnston ed. and trans. Cambridge: Loeb Classical Library 523, 2016, 247-9.

<sup>320</sup> Gerry Greenstone. “The History of Bloodletting” *British Columbia Medical Journal* Vol. 52, No. 1, January, February 2010, 12-14; Lois N. Magner. *A History of Medicine*. New York: Marcel Dekker, Inc; 1992:86-96.



humors as the cause of epidemic diseases. The writings of ancient healers examined the concept of contagion as another factor in the spread of disease.

### *Contagion in Ancient Texts and Early Modern Writings*

Early modern Europeans relied on texts from Greek, Roman, and Islamic traditions to make sense of contagious diseases or find a cause for epidemics. The texts explained that the cause of disease was related to their origin and the way that they spread across human and animal populations. Saul Jarcho surveys several Greek authors to point out the connected nature of disease and the natural environment.<sup>321</sup> In reference to epidemic diseases, a pupil of Hippocrates named Polybus wrote in *Nature of Man* that a disease that affects many people at the same time could only be attributed to that which we breathe -- air. Thucydides reported that the plague of Athens seemed to be the result of exposure to the sick; he wrote that “they became infected by nursing one another and died like sheep.”<sup>322</sup> These, and other Greek authors such as Isocrates and Diodorus Siculus, related contagion to contact among humans.

Roman authors agreed with the Greeks and used contagion to refer to the act of touching, but also to pollution with an evil of many kinds. Seneca, in his dialogue *On Tranquility of the Mind*, posited that diseases were spread by proximity to the diseased bodies and breath of the afflicted. Instead of focusing on morality in his didactic poem, *De rerum natura*, Lucretius attributed disease to morbid seeds that fall from the sky or rise from the earth. Another author, Livy linked military battles with subsequent pestilence because of contact to governmental corruption. He wrote that “political vice might cause religious pollution, which in turn produced

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<sup>321</sup> Saul Jarcho, *The Concept of Contagion in Medicine, Literature, and Religion*. Malabar, Fla.: Krieger Pub., 2000.

<sup>322</sup> Thucydides, *History of the Peloponnesian War*. C. Foster Smith, ed. and trans. London: Heinemann, 1935. 2.51.5

pestilence.”<sup>323</sup> Ancient authors continued to casually connect disease with views of religion and morality.

Scholars continued to theorize on the nature of disease through the medieval period. Four authors in Islamic regions, Rhazes, Isaac Judeaus (a Jewish physician who served the caliph in Kairowan), Avicena, and Haly Abbas, commented on epidemic diseases. The first, Rhazes wrote a treatise on smallpox and measles that focuses on the nature of blood as the chief factor that influenced the severity of disease. Avicena commented, in *Canon of Medicine*; on the contagious nature of diseases such as smallpox. Judeaus, in contrast, favored an internal cause for smallpox when he wrote that infectious matter is implanted in every fetus during its time in the womb. He claimed that only later, in contact with bad airs or in other unfavorable conditions, did the infectious matter move to the skin and erupt into smallpox. He placed the blame for such terrible illnesses on the “unclean” bodies of women and their horrifying cycles.<sup>324</sup> Haly Abbas agreed in his work *Liber regius* that smallpox was caused fetal interaction with menstrual blood, a condition that was triggered later in life by contact with noxious airs. Changes in the weather, different types of airs, miasmas, and overall climate could bring pestilence to a city.

#### *Diseased Environments on Earth and in the Stars*

In early modern times people understood that the natural environment had a tremendous impact on human health, believing that miasmatic airs could be caused by a dangerous alignment of the planets.<sup>325</sup> Early modern healers followed Hippocrates who advised physicians to read the

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<sup>323</sup> Jarcho. *Concept of Contagion*, 13.

<sup>324</sup> The FC described menstrual blood as containing the same level of filth as excrement, bloody flux, perspiration, and nasal mucus. It appears as a mundane substance expelled from the body. Sahagún 1979 [1575-70]: vol. 3, bk. X, f. 96v.

<sup>325</sup> Bowers, *Plague and Public Health*, 33. This observation was first cited by the Paris medical faculty as the cause of pestilence in 1348, and was routinely invoked by authorities to explain later epidemics.

stars. He explained that “one must also guard against the risings of the stars, especially of the Dog Star, then of Arcturus, and also of the setting of the Pleiades. For it is especially at these times that diseases come to a crisis.”<sup>326</sup> Greek writers set the precedent by ascribing diseases to bad airs and the alignment of stars but Islamic scholars recorded and expanded the theories.

Astronomers and doctors often used observations of the celestial realm to draw conclusions about health and disease because they followed the teachings of ancient texts. Healers of all types relied on the stars for insight into corporeal issues so that in “the twelfth century it was perhaps routine for a medical practitioner to make use of astrology in some way.”<sup>327</sup> The complex interaction between the human body, the climate, and the positions of celestial bodies was expressed in astrological theory. Astrological theory, as articulated by several Muslim philosophers, complemented the work of the physician who examined the body because “astrologers examine the celestial causes for human ailments by observing the stellar and planetary motions and associating them with changing sublunary conditions that affect the well-being of humans.”<sup>328</sup> In fact, Rhazes wrote that wise men and medical practitioners “agree that everything relating to times, the air, and waters, and complexions, and diseases is changed by the motion of the planets.”<sup>329</sup> medieval and early modern writers and illustrators often connected the corporeal and the celestial bodies in their texts and images on blood-letting.

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<sup>326</sup> Hippocrates, *Hippocrates of Cos: Airs, Waters, Places* trans W. H. S. Jones, ed Jeffrey Henderson, Cambridge: Harvard University Press, 1923 Vol. II, 105.

<sup>327</sup> Roger French, “Foretelling the Future: Arabic Astrology and English Medicine in the Late Twelfth Century” *Isis* Vol. 87, No. 3, Sep. 1996, 454.

<sup>328</sup> Liana Saif, “The Arabic theory of Astral Influences in Early Modern Medicine” *Renaissance Studies* Vol. 25, No. 5, November 2011, 612.

<sup>329</sup> Rhazes, *Aphorismorum libri 2*, in his *Opera*, Basel, 1544; fac. rep., Brussels 1973, 524; see also Abu Ma‘shar al-Balkhi *Kitab al-Madkhal al-kabir ila ‘ilm ahkam al-nujum (The Great Introduction)*; Ya‘qub ibn Ishaq al-Kindi *De radiis stelicis (On the Stellar Rays)*; pseudo-Majriti *Ghaya al-Hakim (The Picatrix)*.

Several medieval texts, namely the *Wellcome Apocalypse* and sections from the *Miscellanea medica XVIII* held in the Wellcome Library, displayed the human body and indicated the best locations to bleed the patient. The connection between the heavens and bleed methods in Europe is not so different from the Nahua focus blood sacrifice and the sun. Western writers often included information on the star constellations and zodiac signs. One manuscript from the 14<sup>th</sup> century features a page on the correlation between zodiac signs and parts of the body. Figs. 1 and 2 show another image of the human body marked with red lines indicating the locations of veins for the bleeding procedures (figs. 1 and 2).<sup>330</sup> In an article on the history of blood in medieval art, Beate Fricke notes that many medical treatises were accompanied by bloodletting time-tables to calculate the best season for blood-letting.<sup>331</sup> Another image from a text titled *Apocalypse*, written by an unknown author and loosely dated from 1420, relates bloodletting and the zodiac on the same page. The image depicts a human body intersected with red lines to illustrate blood-letting points (fig. 3).<sup>332</sup> The red lines emanate from astral images like stars, moons, and suns. The lines also spring forth from the zodiac signs that form a ring surrounding the body. The Wellcome library considers the image and those on the surrounding medical folios as part of the macabre tradition of medieval Europe that depicts the nearness of death. Natalie Zemon Davis explains, referring to Holbein's skeletal images, that Franciscan and Dominican friars utilized the visual drama to emphasize the inevitability of death and to urge

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<sup>330</sup> *Miscellanea medica XVIII*, Wellcome Library, London, Early 14th century Collection: Archives & Manuscripts, MS 544, fs. 275-276.

<sup>331</sup> Beate Fricke, "A Liquid History: Blood and Animation in Late Medieval Art" *Res: Anthropology and Aesthetics* No. 63/64, Spring/Autumn 2013, 56.

<sup>332</sup> *Wellcome Apocalypse* Wellcome Library, London, Medieval and Middle Ages Collection: Archives and Manuscripts, MS 49, f. 41r.

repentance.<sup>333</sup> The depictions of disease reflected the terrifying reality of living during epidemics. Europeans introduced the same dynamic when they encountered new peoples in the Americas.

Europeans evaluated the macabre reality of the impact of the epidemic diseases on the peoples of the Americas based on their preconceived notions of bodies and astrology. They accounted for the widespread sickness of the Nahua and other indigenous groups, and the relative health of Spanish immigrants, by cataloguing fundamental differences in their constitutions. In his study of New World medical matters, the Spanish physician Francisco Hernández wrote "Let us hope that the men who are born in Europe and who begin to occupy those regions, whether their parents are Spanish or of different nations, do not in obedience to the heavens degenerate to the point of adopting the customs of the Indians."<sup>334</sup> In another text explicitly focused on the epidemics of 1576 Hernández attributed the widespread illness to the Indian's maize-based diet, writing that the grain "generated profuse bile and blood."<sup>335</sup> Jorge Cañizares-Esguerra utilized such statements to argue that early modern Iberians in the Americas constructed an embodied racialized discourse to explain health disparities.<sup>336</sup> Astrological theories, with their basis in Greek and Arabic traditions, existed long before colonization; but experiences in the Americas reinforced Spanish prejudices. Theories based on the planets seem

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<sup>333</sup> Natalie Zemon Davis, "Holbein's Pictures of Death and the Reformation at Lyons" *Studies in Renaissance* Vol. 3, 1956, 97.

<sup>334</sup> Francisco Hernández, *Antigüedades de la Nueva España. Crónicas de América*, 28, (ca. 1574), Ascensión H. de León-Portilla, eds. Madrid: Historia 16, 1986, Book 1, chap. 23, 97.

<sup>335</sup> Francisco Hernández, "On the Illness in New Spain in the Year 1576, Called Cocoliztli by the Indians," in Hernández, *The Mexican Treasury: The Writings of Dr. Francisco Hernández*, Stanford: Stanford University Press, 2002, 84.

<sup>336</sup> Jorge Cañizares-Esguerra, "New Worlds, New Stars: Patriotic Astrology and the Invention of Indian and Creole Bodies in Colonial Spanish America, 1600-1650," *American Historical Review* 104, no. 1, February 1999, 33-68.

to have gained popularity with Spanish healers, based on ideas cited in the works of medical professionals in New Spain found later in this chapter.

### **Diseases, Healers, and Institutions in Spain and New Spain**

Class and background influenced how ordinary early modern people experienced periods of epidemics. Medical practitioners in the early modern Mediterranean world observed that plague spread from contact, and that quarantining the sick was an effective way to stem epidemics. Early modern civil authorities reacted to plagues with quarantines, street cleaning efforts, and calls to medical authorities. As Kristy Wilson Bowers explains, the plague demanded a public health response in Early Modern Seville. Bowers outlines the perceptions of plague and how concepts of disease influenced the actions of city officials in their efforts to combat disease on the individual level, and protect the community as a whole. She explains that Europeans attributed general plague to a variety of causes such as issues with the weather, the environment, miasmas, and poor diet. Intertwined with these causes were "very different concepts of locality, class, and status that additionally colored beliefs on who or what could be polluting to the environment or individual."<sup>337</sup> Bowers studies the official records or plague notebooks of the city councilmen of Seville and finds their tone to be more benevolent than panicked in the face of overwhelming epidemics. Public authorities reacted to plagues according to their station but the everyday person experienced the plague very personally.

#### *Interpretations of Epidemics in Early Modern Spain*

Epidemic diseases were common in early modern Spain and writers reflected on the cause and nature of the illnesses. A Barcelona tanner named Miquel Parets wrote an account of a

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<sup>337</sup> Kristy Wilson Bowers, *Plague and Public Health in Early Modern Seville*. Rochester: University of Rochester Press, 2013, 6

plague that gives us some insight into how a common Iberian man understood this phenomenon in the early modern period.<sup>338</sup> Parets's account is unique because he was an eyewitness to the devastation, as one of the four surviving members of his family. His testimony reveals how an average person coped with and interpreted such a widespread disaster.

Narratives written by craftsmen, such as Parets are few and his involvement in local guild politics gave him insight into ordinary civil life. Like other urban chronicles that described significant political and military events he depicted the 1652 negotiation of the city's surrender to the Spanish army, religious celebrations, civic fetes, and popular riots in an impersonal annalistic style. Parets maintained his impersonal annalistic style in his chronicles from 1626 to 1660 except for one year of emotional turmoil. His memoir of the year of the plague in 1651 recounts his personal tragedy and reveals how an ordinary Iberian interpreted plague.

Parets insisted that the plague was visited upon Barcelona as punishment for the collective sins of the city dwellers, especially those in the impoverished quarters of the city. He is not the first writer to target outsiders, in a social, ethnic, and geographical sense, but his emphasis on personal conduct is where his account varies. He finds no fault with foreigner visitors, or other such offenders of the city order.

Parets diverged from other early modern writers, who were often elites, in his claim that efforts to break down standard patterns of interaction were the cause of plague. He wrote that the neglect of normal relations such as friendship, neighborhood, and kin obligations increased suffering during times of plague. Parets finds fault with the local elite whose negligence and abuse of authority increases the anguish of the inhabitants. Amelang, the editor and translator of

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<sup>338</sup> *A Journal of the Plague Year: The Diary of the Barcelona Tanner Miquel Parets, 1651*. James S. Amelang, trans and ed., Oxford: Oxford University Press, 1991.



the work, employs the phrase “plague ethics” to describe Paret's association of the plague with the moral deficiencies of civic leaders.

Epidemic diseases appeared often in Seville, which maintained the strongest ties with New Spain through colonial institutions. The city experienced at least fourteen significant epidemics during the sixteenth century.<sup>339</sup> The frequent occurrence of epidemics demanded a response from local officials and medical professionals. Doctors and surgeons answered the call.

#### *The Training and Licensing of Doctors in Spain*

The Spanish crown professionalized medical practitioners by establishing its authority over medical licensing with the creation of the *Tribunal de Protomedicato* in 1477. This administrative body decided the educational standards demanded of practitioners, decreed what types of people had the right to practice medicine, and handled any grievances against medical professionals. The theoretical foundations of medicine in the late middle ages were the result of a long process of knowledge production by Spanish physicians who may have worked with Christian, Jewish, and Muslim patients and colleagues.<sup>340</sup> The training required to practice medicine legally and the curriculum of the Spanish certifications is outlined in an essay by García-Ballester, M.R. McVaugh and A. Rubio Vela. The authors focus on the oaths and certification records of doctors and the official complaints made about practicing unlicensed physicians in Valencia, Spain. The *cortes* of Valencia declared in 1329 that no one could practice medicine without attaining the degree of bachelor in a faculty of medicine. The screening of practicing doctors was based on university guidelines, or what was generally known as the

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<sup>339</sup>Bowers, *Plague*, 45.

<sup>340</sup> Luis García-Ballester ed. *Medicine in a Multicultural Society: Christian, Jewish, and Muslim Practitioners in Spanish Kingdoms, 1222-1610*. Burlington ed., USA: Ashgate, 2001.

*stadium generale*. This curriculum focused on theoretical knowledge and clinical expertise and included the work of Johannitius, a medieval physician from Mesopotamis who exemplified a balance between theory and practice. Johannitius wrote that all physicians must have satisfactory knowledge of three categories of life: the naturals, the non-naturals, and the contra-naturals based on Greco-Arabic theories. The naturals were the elements that make up the body such as complexions, humors, spirits, organs, and so on. The non-naturals were all parts of the environment that interact with the human body, including airs, food, drink, work, rest, excretions, and passions of the mind. Finally, the contra-naturals consisted of illness itself, the causes of illness, and the symptoms of illness. This theoretical knowledge, along with questions about the concrete manifestations of human illness, was the basis for the exam to certify physicians in late medieval Spain.

The *Protomedicato* had functioned in New Spain since 1524 but the ability of the inhabitants to meet their standards depended on a variety of factors. Sherry Fields points out that in 1545 there were "apparently only four certified doctors in the entire capital of New Spain."<sup>341</sup> The paucity of trained medical personnel opened spaces for all kinds of different methods of healing. However, one profession that had once been considered merely a technical profession, that of the surgeon-barber, gained prominence and thus regulation through the *Protomedicato*. University-educated physicians concerned himself with administering internal medicine for fevers or epidemic diseases, whereas the surgeon worked in external medicine only.

#### *Surgeons and Facilities in New Spain*

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<sup>341</sup> Fields, *Pestilence and Headcolds*, 53.

In Spain, the centralized *Protomedicato* organized the labor of both the physician and surgeon.<sup>342</sup> Surgeons were much more common than physicians in New Spain because they were considered craftspersons who worked with their hands, unlike physicians who prescribed medical treatments. The surgeon was responsible for problems such as broken bones, boils, rashes, blood-letting, hernias, kidney stones, venereal diseases, and dental problems. The education of surgeons in New Spain was established under the *Protomedicato* with the establishment of the *Real Escuela de Cirugía* in 1621.<sup>343</sup> The surgical curriculum attracted a wide range of craftpersons such as bloodletters and barbers. Yet the certification to become a surgeon required only limited study, and the curriculum was not truly formalized until 1768.<sup>344</sup> It was common for surgeons to have completed an apprenticeship under the supervision of a doctor to practice surgery. This was true for the surgeon Alonso López de Hinojosos, whose work we will examine in a later section, who completed *prácticas* under doctors in Toledo before practicing surgery in New Spain. López de Hinojosos was a surgeon for fourteen years at the Hospital de Sanct Joseph o Real de los Naturales. This facility, founded in 1531, was the first hospital to serve the indigenous population of New Spain exclusively. In all of New Spain, thirty-three hospitals were established in the sixteenth century. Spaniards founded the first two western-style hospitals, the Hospital de la Concepción de Nuestra Señora u Hospital de Jesús and the Hospital de San Lázaro, in the capital city of Mexico in 1521. All of the hospitals in this first part of the colonial period were founded by religious orders for the purposes of evangelization,

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<sup>342</sup> John Tate Lanning, *The Royal Protomedicato*. Durham, NC: Duke University Press, 1985. and Michelle Lee Clouse, "Administering and Administrating Medicine: Regulation of the Medical Marketplace in Philip II's Spain." University of California, Davis, PhD Diss, 2004.

<sup>343</sup> María Luisa Rodríguez-Sala, *Los cirujanos en los colegios novohispanos de la ciudad de México (1567-1838)* Mexico: UNAM, Vol. VI, 40.

<sup>344</sup> Rodríguez-Sala, *Los cirujanos en los colegios*, 68.

or by secular agents who sought to maintain a healthy working populace for the mining and sugar industries.<sup>345</sup> In addition to medical schools and hospitals, many facilities such as pharmacies, and other types of healers like curanderos and midwives, served the population of New Spain.<sup>346</sup> It is evident that the theories of humoralism influenced diagnosis and healing strategies throughout the areas of New Spain where Spaniards settled. Several Spanish writers, doctors and surgeons documented their impressions of the epidemics and their experiences treating sick people in New Spain.

### **A Surgeon serving Indigenous patients: Alonso López de Hinojosos**

Alonso López de Hinojosos was born in 1534 or 1535 in the Cuenca Province of Castilla la Nueva, Spain, and lived to the age of sixty-two.<sup>347</sup> He practiced surgery in Spain under the supervision of a licensed doctor. The date of his departure and his route to the Americas remains unknown. Historian Gerardo Martínez-Hernández infers that López de Hinojosos' arrived with his wife and child no later than 1567.<sup>348</sup> He married while in New Spain, but was quickly widowed again, María Luisa Rodríguez-Sala surmises that his second wife died during the epidemic of 1576. According to Rodríguez-Sala, it was the hardship and loss caused by the

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<sup>345</sup> Rodríguez-Sala, *El Hospital de los Naturales*, Mexico: UNAM, Seria Tomo III, 40.

<sup>346</sup> Noemi Quezada, *Enfermedad y maleficio: el curandero en el México colonial*. México, D.F.: UNAM, 1989; Paula De Vos, "The Art of Pharmacy in Seventeenth-and Eighteenth-Century Mexico" Ph.D. Diss., University of California, Berkely. 2001. Carlos Viesca Treviño, "Curanderism in Mexico and Guatemala: Its Historical Evolution from the Sixteenth to the Nineteenth Century" in *Mesoamerican Healers*, Brad R. Huber and Alan R. Sandstrom eds. Austin: University of Texas Press, 2001.

<sup>347</sup> Germán Somolinos D'Ardios, "Vida y Obra de Alonso Lopez de Hinojosos" in Alonso López de Hinojosos. *Suma y Recopilacion de cirugia con un arte para sangrar muy útil y provechosa*. México: Academia Nacional de Medicina, 1977, 7.

<sup>348</sup> Gerardo Martínez-Hernández, "La llegada del cirujano Alonso López de Hinojosos a la Nueva España" *Revista Medical Instituto Mexicano Seguro Social*. 2011. 49:4, 450.

epidemic that motivated him to join the Jesuit Order.<sup>349</sup> In 1585 López de Hinojosos left his children in the care of another to join the order at over fifty years old.

López de Hinojosos was a surgeon who was learned in Latin and therefore was relatively educated. His training was through experience and his certification may have been "with an exam of sufficient competence before the *Protomedicato*."<sup>350</sup> His practical approach to medicine was intended for people living outside of urban centers, where neither hospitals nor doctors could be found. After his arrival in New Spain he worked in the Hospital de Nuestra Señora de Esta Ciudad and for fourteen years served as surgeon to the Hospital Real de Indios. It was likely that López de Hinojosos' experiences attending to the sick during and after the epidemic of 1576 that led him to write the first book on surgery printed in the New World.

#### *The Surgical Treatise by López de Hinojosos*

Lopez de Hinojosos wrote the first surgical treatise published in the vernacular in New Spain.<sup>351</sup> A second edition of 1578, one that popularized the book, contained a section titled "Antidotario" that contains prescriptions for cures. Rodríguez-Sala claims that this second edition introduced the medical knowledge of indigenous and Spanish experts to a wide audience.<sup>352</sup> The treatise covered common ground for a surgeon, from human anatomy and problems of blood to abscesses and pustules (*bubas*). The sixth section describes fractures and dislocations. The final section focuses entirely on pestilence. This last section is unique in that it includes a narrative of López de Hinojosos's experiences during his time in New Spain.

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<sup>349</sup> Rodríguez-Sala, *Hospital Real de Naturales*, 93-4.

<sup>350</sup> Somolinos D'Ardois in Hinojosos, *Suma y Recopilacion*, 6.

<sup>351</sup> Francisco Bravo's *Opera Medicinalia* was first medical treatise written in Latin in New Spain.

<sup>352</sup> Rodríguez-Sala, *Hospital Real de Naturales*, 97.

In the section on pestilence, López de Hinojosos interrupted his list of medical recommendations and reflected on his work as a healer during a major epidemic in the neighborhood of Santa María of Mexico City in 1576. He wrote that he was ordered by the viceroy to go with a Nahuatl-language interpreter (*nahuatlato*) to identify the disease that was killing many indigenous people. He explained that the indigenous people "called the disease *cocoliztli* and the astrologers said that the cause was the alignment of certain stars."<sup>353</sup> On the other hand, the doctors said that the pestilence was caused by the timing of the beginning of the summer solstice and the end of the fall equinox, and for not having rained in the past two years."<sup>354</sup> He concluded that pestilence was the cause of a great number of deaths, and that priests and even secular church officials were instructed to help confess and tend to the sick.

López de Hinojosos' account underscores several concerns for scholars interested in medical knowledge in sixteenth-century Mexico. First, European-born medical specialists were working largely with indigenous populations that, even after more than fifty years of living alongside Spaniards, spoke only Nahuatl. Second, he confirmed that many extra-medical authorities, such as astrologers, were consulted to diagnose the nature of the disease that plagued the city. Third, he reported that religious officials were involved in the process of providing healing and restorative missions during times of epidemic disease. Finally, he revealed that Spaniards themselves, even medical officials, were baffled by the cause of so many deaths among the indigenous inhabitants of the city. These observations reveal the nascent state of medical knowledge in New Spain.

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<sup>353</sup> Alonso de Molina, *Vocabulario en Lengua Castellana y Mexicana y Mexicana y Castellana*. Biblioteca Porrúa: 1555-1571, 6th edition 2008. 23v; According to a 16th century Nahuatl-Spanish Dictionary *cocoliztli* indicated disease or pestilence.

<sup>354</sup> López de Hinojosos, *Suma y Recopilacion*, 191r-v.

López de Hinojosos' version of the treatment of the 1576 epidemics was also a passionate defense of the efforts of medical and religious authorities to heal the sick. He explained that Viceroy Enriquez used all resources at his disposal to deal with the catastrophe of the epidemics as best he could. He wrote that Spanish authorities acted in the interest of the indigenous population. López de Hinojosos explained that once the viceroy realized that a plague had struck the city, he sent out all religious and secular church authorities to confess people. The surgeon recounted that the confessors did not neglect their duties, despite their knowledge of the grave and contagious nature of the disease; Instead they "desired more the salvation of souls of the indigenous than that their very own health."<sup>355</sup> He was very careful to detail the actions of the viceregal government and their willingness to combat the epidemics.

López de Hinojosos described the beneficial actions of the Archbishop Pedro Moya de Contreras who, he described, was pained to see what was happening to "his flock." The archbishop ordered that all religious authorities attended to the sick, and López de Hinojosos reported that the priests received this order with great enthusiasm. The archbishop administered a special distribution, organized by the secular and church authorities, of "food, medicine, and gifts, all of which the doctor sends with great charity and solicitude without missing a single thing."<sup>356</sup> The author also explains important steps taken to appeal to the saint closely associated with healing during a plague. Spanish authorities held a vigil of eight days with the statue of the Virgen de los Remedios in the Cathedral in the hope of ending the epidemic.

López de Hinojosos discounted the theories of astrologers and doctors who ascribed different causes to the widespread disease. He explained that the foolish astrologers looked at the

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<sup>355</sup> López de Hinojosos, *Suma y Recopilacion*, 208r.

<sup>356</sup> *Ibid.*



"conjunction of the stars" as the principal cause for the great epidemic.<sup>357</sup> A theory advanced by many doctors to explain the disease, the "corruption of the elements," was equally foolish, he thought. According to Lopez de Hinojosos it was God's will that caused the epidemic, not natural elements. He explained that the disease occurred in a time of mild weather, when it was neither very cold nor very hot, when it only rained at dusk and dawn. To prove his point, he wrote that it was in that very time of mild weather "that many negroes and chichimec indians died, that it left the mines, México, and all of New Spain almost without aid."<sup>358</sup> Thus, God was the source of the disease because the elements were not conducive to epidemics. After reaching his conclusion on the cause of the disease, he began to describe cures for the sickness.

López de Hinojosos describes remedies used by the Hospital de los Naturales and other hospitals that he visited. He wrote that when the epidemics began doctors and other practitioners applied typical cures for common ailments: syrups and ordinary purgatives. It was only when many died from the purges that he realized that the disease was so intense. Other remedies consisted of common Spanish elements, such as concoctions of wine and fervent religious devotion to the Virgin Mary. But he also referred to local indigenous knowledge of medicinal plants, including some that were "also a very excellent remedy for those who have smallpox."<sup>359</sup> When a doctor visits a person sick with pestilence, he wrote, they should administer a compound of opium (*atriaca*) and an indigenous herb called *quanenepile*, mixed in water.<sup>360</sup> Finally, another herb called *quatlacalhuas* should be added to this brew. The herb had an obviously

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<sup>357</sup> Ibid, 210r.

<sup>358</sup> Ibid, 210r.

<sup>359</sup> Ibid, 212r.

<sup>360</sup> Ruiz de Alarcon, *Treatise on the Heathen Superstitions That Today Live Among the Indians Native to This New Spain*. 1629. J. Richard Andrews and Ross Hassig trans. and eds. Norman: University of Oklahoma Press, 9.

Nahuatl-language name, the qua(uh)- prefix refers to tree or bush.<sup>361</sup> The author clearly used the Nahuatl-language name of the plant, which implied local knowledge of the plant before the arrival of Europeans. Yet López de Hinojosos claimed a colleague "discovered" the plant. He explained that the plant was "found next to Our Lady of Remedios" and that "Cabrera, scribe to the King, had discovered it," suggesting the healing powers of the saint.<sup>362</sup> He continues to refer to a mix of Spanish and indigenous remedies throughout his discussion of prescriptions. In this sense, his treatise exemplifies the production of knowledge in New Spain by a researcher who relied on indigenous expertise and European concepts.

### **A licensed doctor in the time of epidemics: Agustín Farfán's treatise**

Unlike López de Hinojosos, Agustín Farfán was a licensed physician who arrived in New Spain after a prestigious career as the family doctor of King Philip II. As a secular doctor in Spain he was known as Pedro Garcia Farfán, but in 1568 he joined the Augustinians, took the name of Augustin, and traveled to the New Spain. His first work, a treatise on anatomy and surgery, *Tractado breue de anothomia y chirugia, y de algunas enfermedades*<sup>363</sup> was published in 1579. His second book on domestic medicine titled *Tractado brebe de medicina, y de todas las enfermedades hecho por el padre fray Augustin Farfan doctor en mediçina, y religioso indigno de la orden de sant Augustin, en la nueua España* was published in 1592.<sup>364</sup> In these

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<sup>361</sup> Molina, 2008 [1571]:115 [second numeration] *tlaçalhuia*.

<sup>362</sup> López de Hinojosos, *Suma y Recopilacion*, 211.

<sup>363</sup> Agustín Farfán, *Tractado breue de anothomia y chirugia, y de algunas enfermedades: que mas co[m]munmente suelen hauer en esta Nueva España. / Compuesto por el muy reuerendo padre fray Augustin Farfan, doctor en medicina, y religioso de la Orden de Sant Augustin. Dirigido al muy reuerendo padre meastro fray Martin de Perea, prouincial de la dicha Orden de Sant Augustin*. Pedro Ocharte: 1579.

<sup>364</sup> Agustín Farfán, *Tractado brebe de medicina, y de todas las enfermedades hecho por el padre fray Augustin Farfan doctor en mediçina, y religioso indigno de la orden de sant Augustin, en la nueua España*. 1592. Madrid: Ediciones Cultura Hispanica. 1944. Colección de Incunables Americanos, Siglo XVI, Vol. X.

works, Farfán blended the scientific knowledge of Hippocratic, Galenic, Rhazés, and Avicenna traditions with the expertise of indigenous doctors who specialized in the use of Mexican medicinal plants. The Spanish prose in his *Tractado brebe de medicina* is frequently interrupted with Nahuatl-language terms that have no equivalent in any European vernacular or Latin. My examination of this treatise considers Farfán's work as a product of the hybrid or "mestizo" colonial practice of medicine.

### *The Medical Treatise by Farfán*

Farfán began the eighth chapter of his *Tractado brebe de medicina* on smallpox and measles (*Viruelas y Sarampion*). He addressed a concern found throughout his writings on epidemics in the Americas: the roles of doctors as adequate and willing healers. He wrote that at the very least it was necessary for the reader to be able to cure smallpox, because every day one saw someone who died of the disease. He dedicated an entire chapter to the disease and its cure so that even people who could not consult doctors would know how to treat it. He remarked that the majority of the victims of smallpox die "because they think the disease is not serious and do not call the doctor."<sup>365</sup> He believed that so many inhabitants of New Spain died of a disease that he considered curable. Farfán elaborated on why some might not consider the disease fatal. He wrote that there are two types of *viruelas*: the first appears tall and thick on the skin and the second type is smaller and lighter. The first kind was a serious health threat: "these *viruelas* are very dangerous, and many have died from them."<sup>366</sup> He clarified that the other type of *viruelas* were simply measles and were not as life-threatening as the first type. People often mistook the

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<sup>365</sup> Farfán, *Tractado brebe de medicina*, 48v.

<sup>366</sup> Farfán, *Tractado brebe de medicina*, 48v, although *viruelas* was commonly used to indicate the disease smallpox here the usage likely refers to *pustules* or raised lesions.

two diseases and therefore never consulted a doctor. It was this ignorance, he wrote, that caused such terrible mortality in New Spain.

For the treatment of smallpox, Farfán recommended a complicated prescription dependent on the stage and severity of the affliction. The patient who did not yet suffer lesions on the skin should eat only cold foods, such as the Castilian pumpkin, that would repress the humor, according to Farfán.<sup>367</sup> If the patient already suffered skin lesions, the healers should administer be prepared to administer an enema. If the healer was unable to administer the medicine they should wait until the patient has a bowel movement and take blood from the right arm.<sup>368</sup> Among several other remedies involving different foodstuffs, he recommended covering the patient well to protect them from airs.<sup>369</sup> Farfán's recommendations followed the theories of humoralism and revealed his faith in purgatives and blood-letting to heal the patient.

On the causes of smallpox, Farfán began by explaining the prevailing medical notion of the time that considered menstrual blood as the origin of the humor that caused the disease. Many doctors believed that the disease was transferred from the mother to the child in her womb through the menstrual blood that maintained the life of the child. He disagreed with this theory and instead suggested that the blood was not bad, but that it was not good, either. Farfán rationalized that it must have been better blood "than that [blood] that comes out of women every month that produces nothing."<sup>370</sup> Farfán cited other authors who claimed that the disease was pestilential. Farfán believed that an imbalance of humors caused smallpox, and that remedies

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<sup>367</sup> Farfán, *Tractado brebe de medicina*, 37v.

<sup>368</sup> *Ibid*, 48r.

<sup>369</sup> *Ibid*, 38v, 40v.

<sup>370</sup> Farfán, *Tractado brebe de medicina*, 49r.

needed to re-establish a humoral equilibrium. His many references to Galen reveal his classical medical training. But he also refers a great deal to God.

Farfán's religious devotion as Augustinian surfaces in another section dedicated to the affliction of buboes. He once again criticized the poor and ignorant who refuse to see doctors. He took umbrage at the nickname for doctors-- *matasanos* or "healthy killers," as in killers of healthy people. Even the worst of the sick, according to Farfán, could be cured by a doctor in fifteen days, but only "according to the will of God."<sup>371</sup> The union of medical and religious authority in Farfán's text is typical of the early modern period. José Pardo-Tomás dubs the union "medical pluralism" and defines it as a "privileged territory of negotiation, adaption, and modification of the evangelization discourse that, in theory presented itself as solid and compact, an undisputed victor confronting the paganism of the masses anxious for the new Christian faith."<sup>372</sup>

Early modern medical professionals often also relied on religious in addition to medical explanations for illnesses. The main authorities to determine the cause and often the meaning of disease were not medical practitioners such as doctors and surgeons but ecclesiastical authorities who accessed a broader audience. One point of separation between medical and religious authorities concerned the relationship between the body and the soul. The writings of early Christian philosophers separated the soul from the body, leaving the realm of bodily cleanliness to material authorities. They elevated the spiritual above the material, professing that doctors could only attend to the body whereas only priests could cure the soul.

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<sup>371</sup> Farfán, *Tractado brebe de medicina*, 61v.

<sup>372</sup> José Pardo-Tomás, "Pluralismo medico y medicina de la conversion: Fray: Agustín Farfán y los agustinos en Nueva España, 1533-1610) *Hispania* Vol. LXXIV, No. 248, December 2014, 754.

## Christian Connections to Bodily Health

Early Christian philosophers broke with Greek and Roman medical traditions by creating a clear demarcation between the body and soul. Building on Hebrew ideas on healing found in the Old Testament and the Talmud, Christians often attributed diseases to God's ire. In the Book of Leviticus, the priest reviewed the bodies of those suffering with leprosy and designated the victim clean or unclean. The passage instructed the priest to inspect and wash the clothing of the sufferer but makes no mention of cleansing the body. The leper who hoped to be cleansed must bring an offering of two clean live birds, cedar wood, scarlet, and hyssop and “the priest shall command that one of the birds be killed in an earthen vessel over running water.”<sup>373</sup> The sacrifices could also include two lambs and a ewe without blemish, to be burned. The text recorded a similar ritual for a man suffering from unclean discharges from his body. It admonished that if he had “not rinsed his hands in water, he shall wash his clothes, and bathe himself in water” to help remedy the uncleanliness of his body.<sup>374</sup> The text treats cleanliness of the body differently from cleanliness of the heart and soul. The concept of purity of heart was “Semitic...the phrase 'pure of heart' is unique in the gospels to the beatitude.”<sup>375</sup> The research of Marjorie O'Rourke Boyle points out that “Purity and impurity in those codes referred to cultic inclusion or exclusion: legitimacy to enter the sanctuary. Purity and impurity were not virtue and vice and did not signify holiness or sin. Impurity was involuntary and inevitable. Its remedy was

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<sup>373</sup> *The Holy Bible* King James Version, 1611, Leviticus 14:5

<sup>374</sup> *Ibid*, Leviticus 15:11

<sup>375</sup> *Ibid*, Matthew 5:80

not moral repentance but ritual purification.”<sup>376</sup> Christianity, especially Iberian Catholicism, influenced healing practices of lay people and doctors.

### *Ritual Purification in Christianity*

Although the Greeks and Romans bathed, they remained wary of its potentially harmful effects. Some leaders in the early modern period outlawed public bathing. Whether due to changing Christian norms regarding nudity or the fear of spreading infectious diseases, bath houses faced destruction in early modern Iberia under pressure to delineate proper Christian behavior. Philip II passed a royal decree in November of 1566 against certain Moorish cultural practices, including the destruction of bathhouses and the outlawing of public bathing.<sup>377</sup> Regarding the persecution of public bathing after the middle ages, James Powers observes that “the fifteenth was the age in which oppositions to public bathing grew while the bath-house crumbled under the charges of immorality.”<sup>378</sup> Similarly, Alexandra Cuffel explains that early modern Christian thought prized only the purification of the soul and mocked the practice of ritual washings in Muslim communities.<sup>379</sup> However, Christians practiced their own type of ritual washing: baptism.

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<sup>376</sup> Marjorie O’Rourke Boyle, “Pure of Heart: From Ancient Rites to Renaissance Plato” *Journal of the History of Ideas*, Vol. 63, No. 1, Jan 2002, 45-6.

<sup>377</sup> *Pregmaticas y provisiones de su M. el Rey don Philippe nuestro señor, sobre la lengua y vestidos, y otras cosas que an de hazer los naturales deste Reyno de Granada* Granda: Hugo de Mena 1567; Albrecht Classen, “Bathing, Health Care, Medicine, and Water in the Middle Ages and Early Modern Europe” in *Bodily and Spiritual Hygiene in Medieval and Early Modern Literature* eds. Albrecht Classen and Marilyn Sandidge, Vol. 19, 48.

<sup>378</sup> James F. Powers, “Frontier Municipal Baths and Social Interaction in Thirteenth-Century Spain” *The American Historical Review*, Vol. 84, No. 3, June 1979, 666.

<sup>379</sup> Alexandra Cuffel, “Polemicalizing Women’s Bathing Among Medieval and Early Modern Muslims and Christians” in *The Nature and Function of Water, Baths, Bathing and Hygiene from Antiquity through the Renaissance* eds. Cynthia Kosso and Anne Scott, Boston: Brill, 2009.



For early modern Christians, the ritual washing of baptism ensured that the soul would be saved with little concern for cleanliness of the body. Their only bodily concern was the body of Christ. St. Augustine wrote that the only way to evade eternal punishment was conversion, but one had to be cleansed in a special rite: “only to those who have been washed in Christian baptism, and who become partakers of the body of Christ, no matter how they have lived, or what heresy or impiety they have fallen into.”<sup>380</sup> Although the Church focused on baptizing younger children they also welcomed older people. St. Augustine explained that an older man “was cured at baptism, not only of paralysis but also of hernia, and being delivered from both afflictions, came up out of the font of regeneration as if there were nothing wrong with his body.”<sup>381</sup> The healing waters could cure the afflictions of those who chose to become Christians through baptism. Although church officials professed a separation between the material and the spiritual realms, the effect of God's will on the material world permeates their writings on the uncleanliness of disease. In his research on the epidemics of the Americas, George Lovell quotes Pedro de Liévano (1582) a dean of the Cathedral in Santiago de Guatemala, who attributed the high mortality rates in his province to spiritual forces. Liévano explained that “what causes the Indians to die and to diminish in number are secret judgements of God beyond the reach of man. But what this witness has observed during the time he has spent in these parts is that from the province of Mexico have come three or four pestilences on account of which the country has been greatly depopulated.”<sup>382</sup> Clerical and secular officials explained the devastation by

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<sup>380</sup> Saint Augustine, *The Works of Aurelius Augustine: A New Translation* Edinburgh: T. & T. Clark, Vol. II, “The City of God” Book XXI, 1871, 447.

<sup>381</sup> *Ibid*, 490.

<sup>382</sup> Pedro de Liévano to the Crown (AGI, Guatemala 10, November 5, 1582) cited in W. George Lovell, Christopher H. Lutz “*Strange Lands and Different Peoples*”: *Spaniards and Indians in Colonial Guatemala* contributors Wendy Kramer and William R. Swezey. Norman: University of Oklahoma Press, 2013, 223.

deferring to the hand of the supernatural. God and his judgements connected the cleanliness of spirit proclaimed by Christians with the actual bodies of those who they considered to be unwashed.

### *Chronicles of the Early Modern Epidemics of New Spain*

Christian writers never failed to ascribe spiritual causes to a tragedy in the material world. The following section explores the writings of four Spanish chroniclers for their opinions on the causes and effects of the epidemics in New Spain. Fray Toribio de Benavente (1500?-1569), commonly known by his adopted Nahuatl name, Motolinia, which means the "poor one" was a Franciscan who wrote during his years as a friar in New Spain. Motolinia's *Historia de los indios de la Nueva Espana* (1541) obsessed with the presence of the devil in indigenous ceremonies, but also observed a strict moral code and harsh punishments for adultery and drunkenness.<sup>383</sup> In a letter to King Charles V in 1555, Motolinia attacked the writings of the Dominican Friar, Bartolomé de las Casas. He refuted the argument of Las Casas that Spanish cruelty had caused the great number of deaths in New Spain. Motolinia contradicted Las Casas, saying that the indigenous people were well treated and that it was only the diseases that were killing the indigenous groups. He explained how the writings of Las Casas were wrong because the loss of life "was not due to bad treatment, because there were many years that the indians were well treated, viewed, and defended; no [the deaths] were from the great sicknesses and pestilences that occurred in New Spain."<sup>384</sup> He explained that God was certainly responsible, but

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<sup>383</sup> It is still uncertain the exact date of when Motolinia wrote the manuscript commonly referred to as *Memoriales o Libro de las cosas de la Nueva Espana y de los Naturales de Ella* but many agree it was around the same time as *Historia* in 1541.

<sup>384</sup> *Coleccion de documentos para la historia de México*. Joaquin García Icazbalceta. Mexico: Libreria de J. M. Andrade, 1858. Tomo primero. "Carta de Fray Toribio de Motolinia al Emperador Carlos V, enero 2 de 1555. 270.

that His judgment to send such pestilence was hidden. Motolinia concluded that everyone in New Spain had done what they could to provide cures.

Motolinia recounted how all of New Spain was filled with people before the arrival of the first plague, which in some provinces killed half of the people. He attributed this tremendous mortality to the fact that indigenous people did not know the cure for smallpox. He explained that they had the custom of bathing themselves often, in sickness and health, and "with this they died like bedbugs."<sup>385</sup> These types of plagues, Motolinia recounted, had not been seen before in that land. He outlined all the problems that caused suffering among the indigenous people of New Spain, what he called the "ten plagues," ranging from the first epidemic to forced labor institutions such as the *encomienda* and *repartimiento*. The first plague and subsequent waves of epidemic diseases devastated the poor and the weak. The conquest, according to Motolinia, was the second plague and "in this second [plague] God wounded the elders and the *principales*, who were those in charge of war."<sup>386</sup>

Although Motolinia made explicit comparisons with Egypt in reference to the plagues, in that both plagues were sent by God as a form of punishment, he outlines four principle differences between the plagues of Egypt and New Spain. First, the people of Egypt died only during the last plague, whereas in New Spain people died in every single plague. Second, during the tragedy in Egypt "someones was always left to mourn the dead, and [whereas] here the said plagues left many houses depopulated, everyone died."<sup>387</sup> He observed differences in the duration of the plagues; whereas Egypt experienced relatively short plagues, the ones in New

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<sup>385</sup> Fray Toribio de Benavente o Motolinia, *Memoriales o Libro de las cosas de la Nueva Espana y de los Naturales de Ella México*: UNAM, 1971, 21.

<sup>386</sup> Motolinia, *Memoriales*, 24.

<sup>387</sup> Motolinia, *Memoriales*, 30.

Spain lasted much longer. Finally, he explained that the plagues of Egypt were all sent by God, but that was not true in New Spain. He claimed that a large number of the plagues of New Spain were caused "by the cruelty and greed of man, although permitted by God."<sup>388</sup> In the second part of his writings he portrayed the first three plagues of New Spain (the epidemics, the conquest, and the famine) as three of the four horsemen of the Apocalypse.<sup>389</sup> In conclusion, Motolinia attributed the plagues to God but qualified this explanation in his comparison of New Spain and Egypt.

Francisco López de Gómara (1511-c. 1566), another chronicler who never visited Mexico but wrote about the Spanish-led invasion of 1519, offered his reasons for the first epidemic. Gómara (1511-c. 1566) served as the personal chaplain to Hernando Cortés. He published two histories in 1553, the first the *Historia general de las Indias* and the second *La conquista de Mexico, y de la Nueva España*.<sup>390</sup> López de Gómara reported that disease had a devastating effect on the indigenous population. He wrote that in "many houses all died, and in many towns half [died], being that it was a new disease for them."<sup>391</sup> He outlined many of the reasons why so many died from the diseases, and not by the iron weapons of the conquest. He noted that disease had left few alive or well enough to make food; that there were no women who could grind their grain and cook it. He wrote of the pernicious practice of bathing, that "they by custom or vice enter in the bath cold and leave hot..."<sup>392</sup> There were also many bodies that remained unburied,

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<sup>388</sup> Motolinia, *Memoriales*, 30.

<sup>389</sup> Motolinia, *Memoriales*, 294.

<sup>390</sup> Brading, *The First America*, 50, Published at the same time as his *Conquista de México, Historia* was an instant success and was reprinted three times. His work influenced, in agreement or contrarily, all the chroniclers who wrote after him (his work inspired Las Casas to write his "true" history of the conquest).

<sup>391</sup> Francisco Lopez de Gomara, *La Historia General de las Indias*. Mexico: Pedro Robredo ed. 1943. 291

<sup>392</sup> Gomara, *La Historia General*, 291.

which began to stink. These reasons were often repeated in subsequent writings on the topic.

López de Gómara established the discourse for many other writers of the history of the conquest and epidemics.

Not all Christian authorities disparaged indigenous remedies for disease. The Franciscan friar Jerónimo de Mendieta (1525-1604) completed a lengthy chronicle titled *Historia eclesiástica indiana* in 1596. If Motolinia and other Franciscans earlier in the century had great expectations for New Spain, as a millennial kingdom where millions of indigenous neophytes offered the church a great harvest of saved souls, Mendieta mourned the fading millennial promise of New Spain by the time he completed his work in the late sixteenth century. The principle reason for his pessimism was New Spain's dwindling population. Mendieta believed that disease was a sign of God's mercy, to save indigenous peoples from continued abuse by the colonial system.<sup>393</sup> He seems to have agreed with the conclusion that Las Casas reached in his *Brevisima relacion de la destrucción de las Indias*, published in 1542. Although he intended to exalt the work of his brethren, the Franciscans, Mendieta also revealed their collective disappointment, reflecting on the euphoria of the early period when the friars prided themselves on converting indigenous people to the faith en masse. Unlike many chroniclers of the period, he believed in the genuine devotion of many indigenous converts and blamed non-religious Spaniards for the decline in numbers of indigenous souls.

Ultimately, however, Mendieta attributed the epidemics of New Spain to God. He opined that the neophytes possessed a shaky command of the faith due to the pervasiveness of epidemics. He wrote that "Our Father sent, by his secret judgments, so many [pestilences] that

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<sup>393</sup> Fray Geronimo de Mendieta, *Historia Eclesiastica Indiana*. Mexico: Porrúa, 197. 556-62, 514-15; His position was also due to the fact that he arrived in 1554 during *repartimiento*, the threat of replacing friars with secular clergy, and public critiques of the power of the church.

have occurred after they [the indigenous people] converted..."<sup>394</sup> He explained that he was speaking only of the pestilences that came from disease, not the "plagues" of forced labor discussed by Motolinia. Mendieta revealed that many converts believed that the disease was a punishment for their sins. Mendieta reasoned that Christians were in part responsible for promoting the idea of plagues as divine punishment for sins. He wrote that the newly converted, "confess and they say (as we have preached it) that this punishment has come to them because of their sins."<sup>395</sup> Yet, he acknowledged that the death of so many was not solely due to a spiritual crisis. Material conditions also contributed to the mortality.

Like many other Spanish writers, Mendieta claimed that the indigenous did not know the cure for smallpox, and that most indigenous people died because they continued to follow their custom of daily baths in hot water "that inflamed the blood more, and in this way an infinite number died in all places."<sup>396</sup> He reiterated the fact that many died from hunger and that few remained alive to care for the sick. In reference to the first major epidemic, he lamented that "the first friars had not yet arrived, who had always been their bodily and spiritual doctors..."<sup>397</sup> He considered friars as important as doctors in treating the sick. He referred to medical professionals curing the sick only in reference to recent epidemics, in 1595 and 1596. He wrote that friars were paired with surgeons to hear confession and to perform bloodletting at the entrance to the

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<sup>394</sup> Mendieta. *Historia Ecclesiastica*, Cap. XXXVI, 513, Perhaps Mendieta is also responsible for blaming the peoples of the Americas for syphilis, 514-5, for more on the origin debated information see Ruy Diaz de Isla, *Tractado contra el mal serpentio* 1539 and Girolamo Frascatoro, *Syphilis sive morbus gallicus* 1530, *De contagion et contagiosis morbus curatione* 1546.

<sup>395</sup> Mendieta. *Historia Ecclesiastica*, Cap. XXXVI, 513-4.

<sup>396</sup> *Ibid*, Cap. XXXVI, 514.

<sup>397</sup> *Ibid*.

convent of St. Juan Baptista.<sup>398</sup> He bemoaned the lack of initiative shown by some friars, who remained in the convent when so many were suffering. At the same time, he praised many good friars who left the convents with surgeons and purgatives in order to visit the sick who were not able to leave their homes. Mendieta also discussed a certain herb, called *cohuanenepilli*, that when boiled with white wine (which could possibly refer to pulque), helped to cure those suffering.<sup>399</sup> He continued to describe more remedies, including one using the root *Michuacan*. Mendieta, like the surgeon López de Hinojosos, acknowledged the value of indigenous knowledge.

Fray Juan de Torquemada utilized various accounts, including the unpublished manuscripts of Motolinia and Mendieta, to publish his own version of the conquest and history of early New Spain *Monarquía Indiana*, published in Seville in 1615.<sup>400</sup> Torquemada praised the conquistadors without denigrating the conquered. He was brought to Mexico as a child and joined the Franciscan order in 1579. Naturally, he defended and praised the role of Franciscans in New Spain, and also acknowledged the value of indigenous culture.

Torquemada attributed the spread of smallpox (*viruelas*) to the arrival of Europeans on the coast of Mexico. He related that a member of the expedition to Mexico, led by Panfilo de Narvaez, carried smallpox. He offered another theory that blamed the outbreak of disease on a person of African descent who was infected, but opined that "this disease was not the result of the contagion brought by the Negro though they [indigenous people consulted] claim it... did not

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<sup>398</sup> Ibid, Cap. XXXVI, 516.

<sup>399</sup> Mendieta. *Historia Ecclesiastica*, Cap. XXXVI, 516.

<sup>400</sup> Juan de Torquemada, *Monarquía indiana*. México: Editorial Porrúa, 1969. He relied on sources such as Las Casas *Apologética historia sumaria*, José de Acosta, as well as sources from Indigenous annals such as Muñoz Camargo, Ixtlilxochitl, and the account of the conquest found in Book XII of the FC.



affect the Castilians."<sup>401</sup> In any case, he concluded that Narvaez' expedition brought smallpox to Mexico, which first spread or stuck (*pegandose*) to the Indians of Cempoalla on the coast. The disease spread easily, he thought, because Cempoalla was a densely populated place and that many people lived very close together in small homes.

In addition to the type of homes, Torquemada cited four other explanations for why so many indigenous people died from disease. First, they bathed every day, much to his amazement, whether healthy or not. He believed that bathing when sick only worsened "the threat that embraced them."<sup>402</sup> The excessive heat of the land was another cause of death because "it was a thing so contrary to the cure, and in this way, they died infinitely."<sup>403</sup> He added that there were so many dead that the bodies could not be buried, so that "the stench corrupted the air, and there was fear of a great Pestilence."<sup>404</sup> This reference to the corrupting power of stench is a reference, whether conscious or not, to ancient Greco-Islamic miasma theory. In the end, Torquemada mixed medical and religious concepts to explain illness. Like many writers of the period, he could not separate afflictions of the body and the soul, but rather used a range of sacred and profane causal factors to explain the tragedy of the epidemics.

### **Sahagún as Witness to Epidemics and Organizer of the Florentine Codex**

When writing about the first European-style academic institution that taught indigenous students in the Americas, fray Bernardino de Sahagún argued that the valuable college and its

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<sup>401</sup> Juan de Torquemada, *Monarquía indiana*. México: Editorial Porrúa, 1969. Tomo I p. 488 In another twist that exposed prevailing European sensibilities, he claimed that it was *un Negro con Viruelas* who must have brought the disease because it did not affect the Castilians.

<sup>402</sup> Torquemada, Tomo I, 488.

<sup>403</sup> Ibid.

<sup>404</sup> Ibid.

students were endangered by epidemics. He explained that the school “could have provided great good to this entire Indian state, and the king would have more subjects that he has now because they decrease constantly.”<sup>405</sup> Sahagún articulated two main concerns about the past and the future of New Spain in the Spanish-language prologues and notes of the Florentine Codex (FC). The following section examines twenty-five individual prologues, notes from the author, and various commentaries scattered throughout the FC for insight into Sahagún’s thoughts on the epidemics. Sahagún wrote or dictated his commentaries to a scribe, and were written in Spanish. The prologues are placed as front matter to the individual books of the FC, but some of his notes completely displaced what would have been a Spanish-language translation of the original Nahuatl-language text.<sup>406</sup> He registered his distress and frustration in the middle of a major epidemic, when many people around him were dying off; he complained about the failure of colonial authorities to stop the epidemics, and their impact on the college where he lived and worked with Nahuas.

Sahagún used disease as a grim backdrop to draw attention to spiritual, intellectual, and administrative problems in New Spain. He considered the mishandling of the epidemic by colonial authorities, and their meager support for the college, as signs of decline in the viceroyalty. He struggled to finance and complete the magnum opus to which he had dedicated a good part of his life, when works related to indigenous culture and history had become controversial even among members of his own order.

### *Sahagún's Perspective*

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<sup>405</sup>Sahagún, 1979 [1575-1579] vol. 3, bk. X, f. 84r.

<sup>406</sup> There are also many notes placed in the Spanish-language column which substituted the Spanish-language translation of the Nahuatl-language column.

Sahagún witnessed two major epidemics in his lifetime. Like other Spanish chroniclers, he attributed the plagues to his God. But he was convinced that human error and neglect were to blame for the severity of the epidemics.<sup>407</sup> Sahagún disagreed with chroniclers such as Motolinia and Mendieta, who thought of the epidemics as "secret judgments of God" or divine punishment.<sup>408</sup> Sahagún clearly sympathized with indigenous people. He stated that the real cause for so many deaths was due to the lack of trained physicians. He did not condemn the Nahua for their paganism; instead, he blamed colonial and religious administrators for their failure to respond effectively to the epidemics.

Sahagún believed that the introduction of Christianity to the Americas would boost the fortunes of the waning Catholic Church in the world. Yet, the introduction of Christianity to the New World was not an accomplished mission. The Europeans who crossed the ocean to spread Christianity to the peoples of the Indies were foiled by epidemic disease from the beginning, in the Caribbean. Where there were once a great and diverse number of people in the West Indies, Sahagún described that many "have already become extinct. And those which remain are on the road to extinction."<sup>409</sup> The Church, and by extension, Spain itself must do more to remedy the loss of life in the Indies, Sahagún concluded.

Sahagún and many other Franciscans hoped and believed that the disaster of the West Indies would not be repeated in New Spain. Mexico would give the Church millions of converts and provide a secure base for converting people throughout the Americas. He asserted that "in

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<sup>407</sup> Sahagún, 1979 [1575-1579] vol. 3, bk. XI, f. 238v.

<sup>408</sup> Fray Toribio de Benavente or Motolinia, *Memoriales o Libro de las cosas de la Nueva Espana y de los Naturales de Ella* (UNAM, 1971) 24 and Fray Geronimo de Mendieta. *Historia Eclesiastica Indianna*. Editorial Porrúa, 1971. 513-4.

<sup>409</sup> Sahagún, 1979 [1575-1579] vol. 3, bk. XI, f. 238r.

our times, in these lands, and with this people, that our Lord God has willed to restore to the Church that which the demon robbed her of in England, Germany, France, Asia, and Palestine."<sup>410</sup> Many religious and secular authorities viewed the Nahua as unworthy of academic or divine study. Although he considered the Nahua unfit to serve as priests, citing past experiences, he insisted on their rational abilities and praised their mental faculties.<sup>411</sup> He argued that the indigenous "are no less capable of our Christianity; besides, they have been duly indoctrinated therein."<sup>412</sup> His conviction in the mental abilities of the Nahua was rare among Sahagún's colleagues in the Americas and in Spain. His dream of a large Catholic indigenous population was far from reality, in that the new world proved to be "a sterile land and very laborious to cultivate where the Catholic Faith has very shallow roots"<sup>413</sup> The Crown and the Church would need to work together to expand the faith in Mexico. However, it was not because of neglect or lack of effort that the faith had withered in Mexico. Sahagún pointed to an entirely different reason for the disappointment of the Church in New Spain.

Sahagún clearly attributed the failure of the Church to convert souls in Mexico to the epidemics. He predicted dismal prospects for the church if the loss of life continued in New Spain. He wrote "the people are becoming extinct with great rapidity, not so much because of the bad treatment accorded them as from the plagues God sends them."<sup>414</sup> Here he directly contradicts the argument put forward by Bartolomé de Las Casas in his exchanges with Bishop

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<sup>410</sup> Sahagún, 1979 [1575-1579] vol. 1, bk. I, f. 2v.

<sup>411</sup> Sahagún, 1979 [1575-1579] vol. 3, bk. X, f. 73r-v; 75v.

<sup>412</sup> Sahagún, 1979 [1575-1579] vol. 1, bk. I, f. 2v.

<sup>413</sup> Sahagún, 1979 [1575-1579] vol. 3, bk. XI, f. 238r.

<sup>414</sup> Ibid.

Quevedo, that the "cruel and unjust wars waged on the Indians" and institutions of forced labor were to blame for all the deaths.<sup>415</sup> Las Casas did acknowledge the disastrous effects of epidemics in his later writings, but he always returned to Spanish cruelty as the main cause of population decline.<sup>416</sup> Sahagun contradicted Las Casas directly by challenging the alleged "black legend" of Spanish cruelty, and instead pointed to three epidemics as the main cause of death.<sup>417</sup> In the Florentine Codex Sahagún described each of the three plagues, which influenced the creation and content of the manuscript.

The first epidemic occurred in 1520, when Spaniards led an invasion on the city of Mexico- Tenochtitlan. In describing the very first epidemic that occurred in central Mexico, Sahagún and his team of scholars placed the blame for the pervasive diseases squarely on the Europeans. In his note to the reader in Book XI, Sahagún explained that before the arrival of the Spaniards, the land was filled with people beyond counting. Then, he wrote, "by way of war, the Indians expelled the Spaniards from this City of Mexico...a great plague of smallpox struck them whereof countless Indians died."<sup>418</sup> The second epidemic occurred in 1545, close to the time when Sahagún began to work with his team on the beginnings of the *FC*. He recounted that the "major portion of the people living in all this New Spain died...I buried more than ten

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<sup>415</sup> Bartolome de Las Casas, *Brevisima relacion de la destruccion de las Indias*. 1552. See also Jeremy Lawrence, *Spanish Conquest, Protestant Prejudice, Las Casas and the Black Legend*. Nottingham, England: Critical, Cultural, and Communications Press, 1999. 23ff. see also Lawrence A. Clayton. *Bartolome de las Casas: A Biography*. Cambridge: Cambridge University press, 2012. 177.

<sup>416</sup> Las Casas discusses the impact of the epidemics in his work published in 1561. *Historia de las Indias*, Vol. V. 2317-2321.

<sup>417</sup> Bartolome de Las Casas, *Brevisima relacion de la destruccion de las Indias*. pub. 1552. See also Jeremy Lawrence, *Spanish Conquest, Protestant Prejudice, Las Casas and the Black Legend*. Nottingham, England: Critical, Cultural, and Communications Press, 1999. 23ff, also Lawrence A. Clayton. *Bartolome de las Casas: A Biography*. Cambridge: Cambridge University press, 2012. 177.

<sup>418</sup> Sahagún, 1979 [1575-1579] vol. 3, bk. XI, f. 248v.

thousand bodies."<sup>419</sup> It was during this second plague that Sahagún himself fell ill and almost died.

*Attack on Sahagún's Projects and Loss of Indigenous Scholars to Disease*

The third major outbreak began in 1576; Sahagún referred to the death from smallpox of some of the Nahuatl scholars who were working on the FC when they were completing the manuscript in 1579. The team members that worked with Sahagún on the FC were recruited from students at the College of Santa Cruz in Tlatelolco that served to educate the sons of Nahuatl nobles. Sahagún helped to found the school and served as one of its first instructors. In his discussion of the plague of 1576, he commented how the deaths from the second plague had negatively affected the college. Sahagún wrote that "there is hardly anyone still in the college, dead and sick, almost all are gone."<sup>420</sup>

Sahagún attributed the severity of the plagues to the shortage of trained doctors, bloodletters, and church officials to attend to the sick. He reasoned that "most of those who died, died because there was no one who knew how to let blood, nor to administer the medicines as required."<sup>421</sup> He established the effectiveness of the curing methods of doctors and bloodletters in his statement: "we witness with our own eyes that those whom they visit to bleed and purge, as is proper, in time recover, and the rest die."<sup>422</sup> He complained that the shortage of trained doctors in Mexico City disproportionately affected the Nahuatl.<sup>423</sup> Sahagún thought that the

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<sup>419</sup> Sahagún, 1979 [1575-1579] vol. 3, bk. XI, f. 238v.

<sup>420</sup> Sahagún 1979 [1575-1579] vol. 3, bk. X, f. 83r.

<sup>421</sup> Sahagún 1979 [1575-1579] vol. 3, bk. X, f. 83v- 84r.

<sup>422</sup> Ibid.

<sup>423</sup> Ibid.

shortage of qualified people to care for the Nahuatl inhabitants of the city could have been remedied by instructing indigenous people in the art of medicine and healing.

Sahagún argued that New Spain's indigenous population was its most undervalued asset. Sahagún explained that if only "these Indians had been instructed in grammar, logic, moral philosophy, and medicine, they could have aided many of those who died."<sup>424</sup> Due to his experience teaching at the College of Santa Cruz, he knew that the Nahuatl scholars and students whom he instructed could skillfully manage any task. He endorsed the skills and abilities of not only the students at the college but also Nahuatl employed in masonry and carpentry.<sup>425</sup> As if explaining his point to an ignorant or oppositional audience, Sahagún cited his own experience. He wrote that "All this we know from experience that they have a capacity for it, they learn it, understand it, and teach it. There is no art they do not have the capacity to learn and practice."<sup>426</sup> His desire to teach the Nahuatl, according to Sahagún, was viewed by others as a hopeless task. He described that "the Spaniards and other religious who knew this [of his teaching to the Nahuatl], laughed much and made fun, taking it very much for granted that no one would have such ability as to succeed in teaching grammar to so incapable a people."<sup>427</sup> He complained that rectors, councilors and friars who had not maintained the college had failed due to carelessness, and now it was on the verge of collapse.<sup>428</sup> The college was beleaguered by disease and poor

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<sup>424</sup> Ibid.

<sup>425</sup> At the college, he witnessed Nahuatl students develop skills in Latin grammar, logic, rhetoric, astrology, and theology. Beyond the institution, he declared the Nahuatl capable of tasks involving geometry, in order to construct architecture just as a Spaniard might. He named the Nahuatl worthy of several skills such as masonry and carpentry but also specialized professions such as printers, bookkeepers, and musicians.

<sup>426</sup> Sahagún, 1979 [1575-1579] vol. 3, bk. X, f. 71r.

<sup>427</sup> Sahagún, 1979 [1575-1579] vol. 3, bk. X, f. 80r.

<sup>428</sup> Sahagún, 1979 [1575-1579] vol. 3, bk. X, f. 82v-83r.



management alike. The negligence was exacerbated by a lack of trained people who could attend to the sick during the epidemics.

In defending the college where he worked, Sahagún also defended the idea of collaborating with Nahua people. Without the college, the FC project would simply not have been possible. Sahagún wrote as much when he acknowledged having taught the Nahua students who became part of his team as authors, scribes, and illustrators. Writing as a man in his late seventies and dealing with his failing health, Sahagún saw all of his achievements falling apart during the plagues that took away many of his students. He hoped that his years of toil, culminating in the final copies of the FC, would prove to the Crown the importance of their work and, by extension, the culture and society of the Nahua.

## **Conclusion**

Explanations of disease in the early modern world relied on ancient medical texts and the empirical observations of contemporary writers. Greek and Roman theories of humoralism, contagion, diet/regimen, and the disease-causing factors found in the natural environment informed the writings of the doctors and surgeons who arrived in New Spain. The Spanish Crown required medical training and licensing of doctors, but surgeons learned more by hands-on practice with patients. One surgeon who arrived in New Spain after his training in Spain, Alonso López de Hinojosos, lived in Mexico and worked with indigenous patients who were stricken by the epidemics. He witnessed the devastation but held out hope that he and other medical authorities could work hard to stem the loss. In comparison, a licensed doctor, Augustín Farfán, relied on European and indigenous forms of knowledge to prescribe cures for the devastating loss of life that he saw in New Spain.

Most Christians attributed disease to the will, if not wrath, of God, and the indigenous peoples as victims of that wrath. Most Spanish writers criticized the healing practices of bathing and in doing so blamed the indigenous people for their own misery. One learned Franciscan, Bernardino de Sahagún, blamed incompetent and disrespectful colonial authorities for the loss of life and lack of support for indigenous education. The positions of these Spanish writers, from doctors and surgeons to secular and ecclesiastical chroniclers, reflect how Europeans interpreted the nature of disease and the reasons why indigenous peoples suffered more than Spaniards.

Spanish commentaries on disease in sixteenth-century New Spain reveal the extent to which men struggled to explain the devastating epidemics of the time. The first two chapters of this dissertation reveal a range of similarities and differences between Spanish and Nahua beliefs and practices regarding health and disease. Similarities afforded both sides the potential to work together to find remedies, to make empirical observations, from using native plants and cures to acknowledging the importance of food preparation. Differences tended to reinforce Spanish notions of superiority. Finally, this chapter highlights the transatlantic exchange of ideas in the sixteenth century, and contributes to scholarship on medicine and disease in the early modern period.

Chapter Two: Figures

Fig. 1 Miscellanea medica XVIII, Wellcome Library, London, Early 14th century Collection: Archives & Manuscripts, Library reference no.: and Archives and Manuscripts MS.544, f. 275

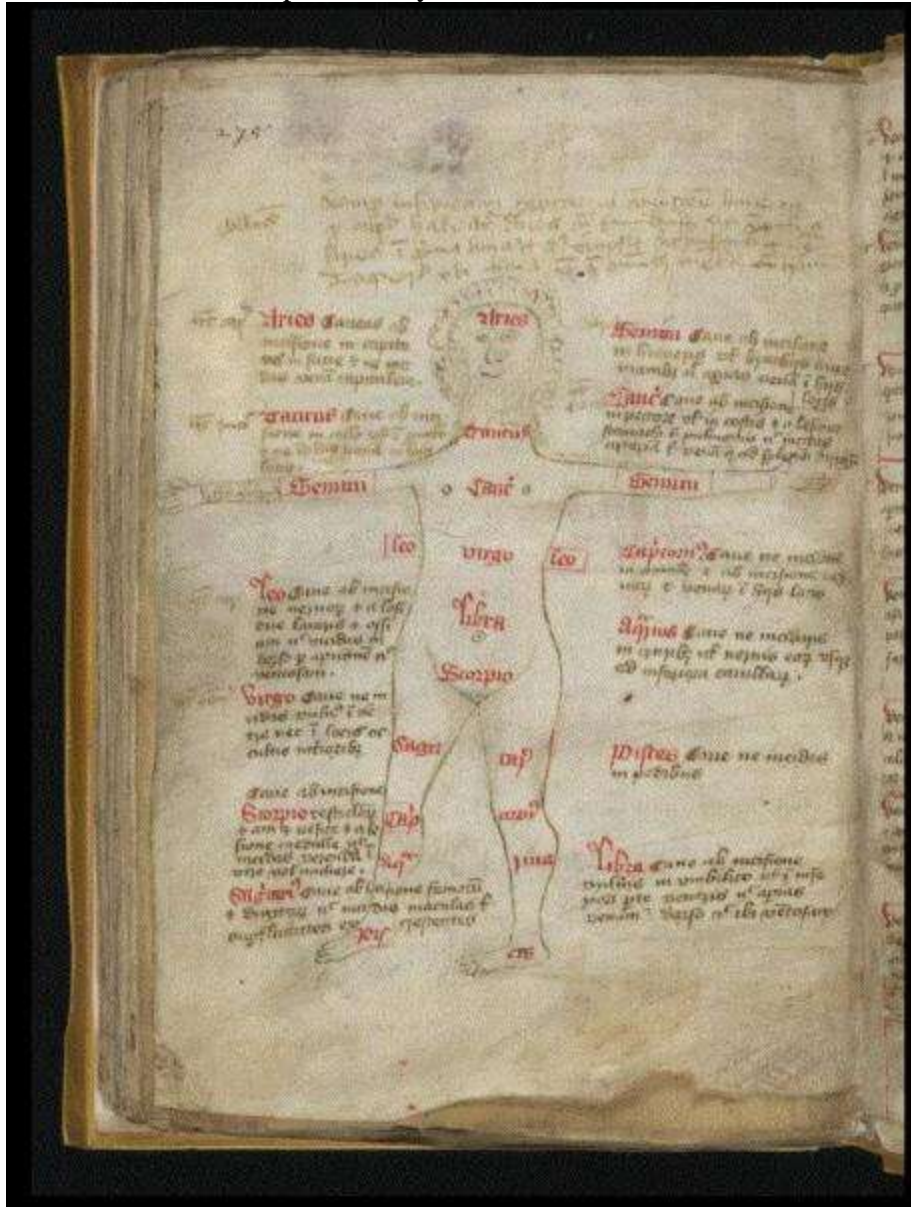


Fig. 2 Miscellanea medica XVIII, Wellcome Library, London, Early 14th century Collection: Archives & Manuscripts, Library reference no.: and Archives and Manuscripts MS.544, f. 276

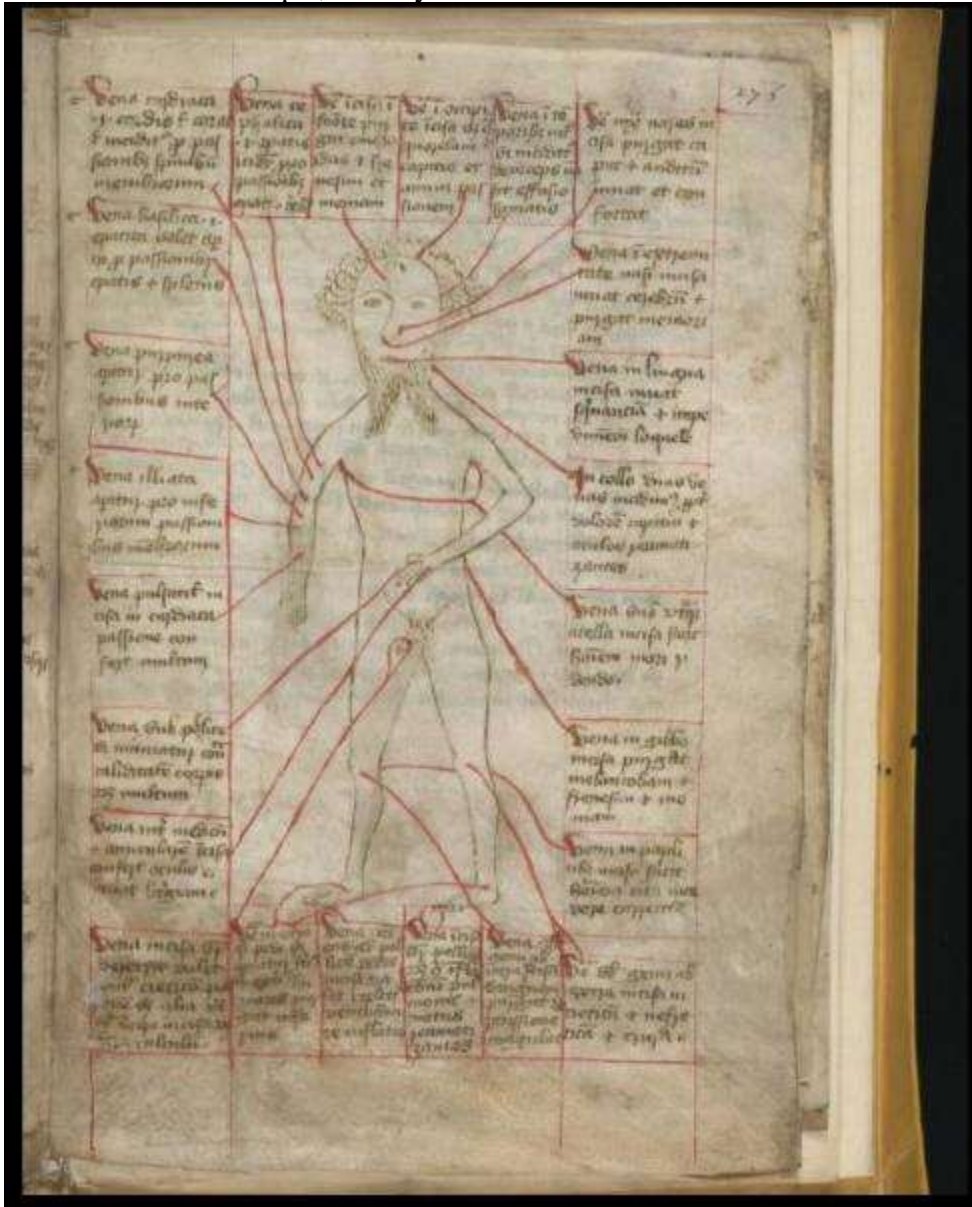
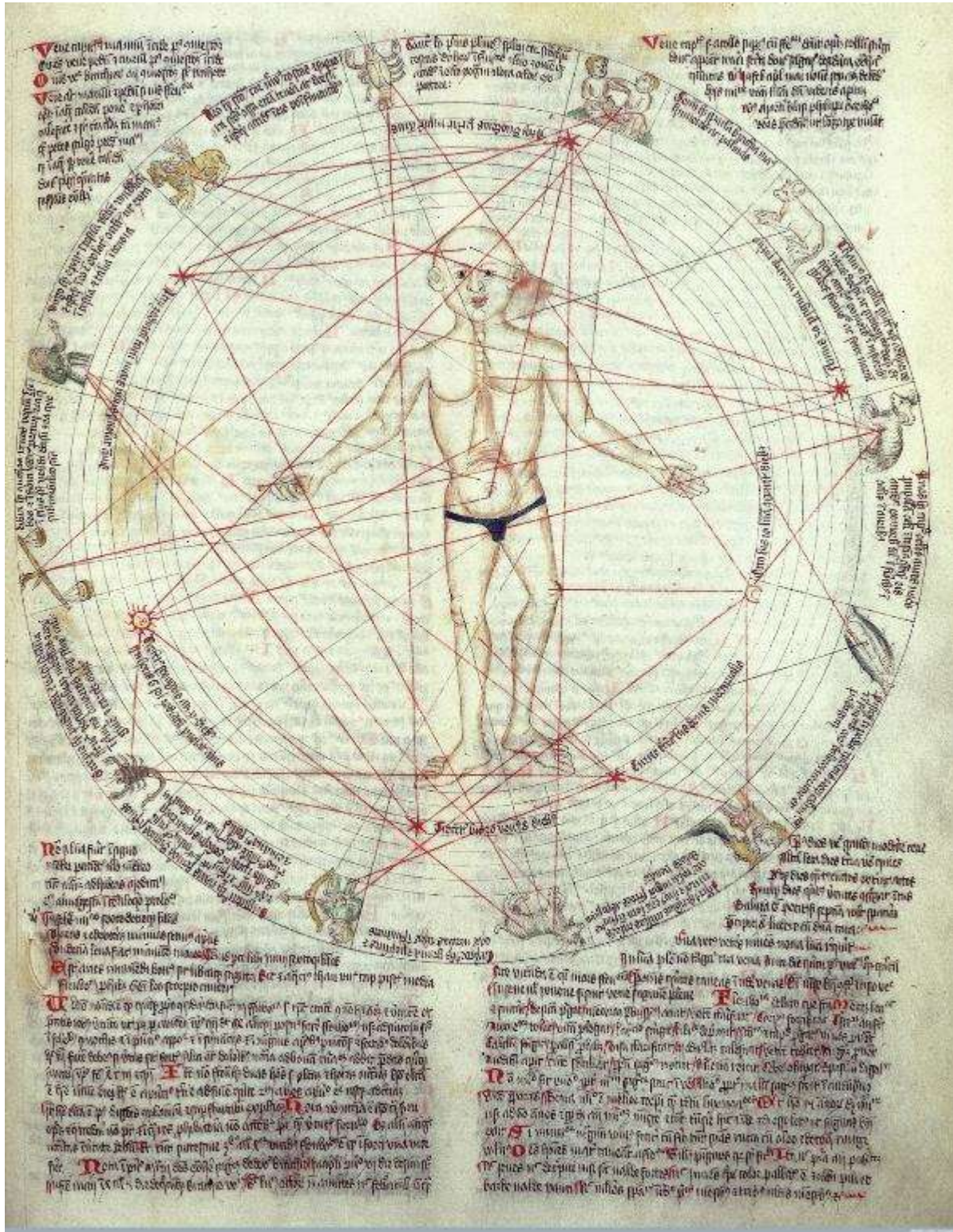




Fig. 3, Wellcome Apocalypse Wellcome Library, London, Medieval and Middle Ages Collection: Archives and Manuscripts, MS 49, f. 41r



## **Chapter Three: Epidemic Invasions: Illness during First Contact**

### **Introduction**

### **On the Breath of Infected Messengers: Initial Contact with Spaniards**

### **Moteuczoma's Heart Suffers: Leadership during the Invasion**

### **Fear Spreads: The Altepetl Suffers Invasion**

### **The Pollution of Stench and Filth**

### **Sweeping Away Dirt, Cleansing the Altepetl**

### **Diseased Images: The Pictorial Annals on the Conquest**

### **The Short Reign of Cuitlahuac**

### **Defeating Dirt: The surrender of Quauhtemoc**

### **Nahua Healing Authorities on Illness and Cures**

### **Sahagún's Editorial Changes to the Illness Section**

### **Observable Edits the Year-Count Calendar and People Sections**

### **Mexica Healers in the Florentine Codex**

### **Conclusion**

## **Introduction**

Although disease had a devastating impact on the indigenous people during the conquest of central Mexico we know very little about how they understood and remembered the epidemics. Conquest narratives written by the people who suffered the violence of invasion contain profound references to disease. Chapter one discussed how Nahuas identified poor health; this chapter applies those concepts to the conquest and first century of colonial rule by examining many texts and images on disease produced by indigenous writers and artists in central Mexico.

People interpreted disease according to their concepts of health and illness. Mexica communities experienced pain and suffering even before the occurrence of the first epidemic. According to the Nahuatl narrative in Book XII of the Florentine Codex, the messengers who met Hernando Cortés on his ship along the coast of Mexico suffered from their interactions with the dangerous invaders. The messengers brought illness with them when they returned to the city of Tenochtitlan. In making their report, they passed their illness to Moteuczoma, leader of the powerful Mexica people. Moteuczoma suffered illness, what some have interpreted as cowardice, in preparing to meet Cortés. Although the exact circumstances of the leader's death are uncertain, Moteuczoma was not the only Mexica leader to die after the arrival of Cortés. The Tenochca leader who followed him, Cuitlahuac, died from the first epidemic disease. At the same time, disease debilitated the population and debilitated warriors' efforts to resist the invasion. The disruption of leadership and inability to fight at full strength affected nearly all indigenous peoples throughout the Americas at one point or another. Contact with Europeans or even those who had come into contact with them triggered deadly disease in the "new world."

The epidemics affected Nahua leaders and commoners alike. Everyone suffered from the pollution of their physical and spiritual environment. Nahua texts suggest that the outbreak of disease was in some way caused or presaged by the polluting acts of the Castilians. The authors and artists of annals attested to the terrifying force of the epidemics and associated it with the conquest. Nahua authors employed their disease-language vocabulary and concepts of health to explain the causes. Yet Nahuas and Spaniards disagreed on the timing of the first epidemic and its meaning. For the Nahua, the epidemic was caused by an inability to cleanse their city after the expulsion of their enemies. It weakened their warriors and caused utter chaos among the survivors. The sullied environment and the decrepit state of their leaders when they surrendered signaled the collapse of their health and welfare. However, many Nahua survived the first epidemic and war; a few produced alphabetic and pictorial texts that attempted to make sense of what had happened.

Nahua authors of the Florentine Codex tended to defer to their healers as authorities who could help mitigate the impact of diseases. Some of the authors had survived one or more major epidemics. They recognized the dire need to record information about illness and healing. They worked with their Spanish counterparts to document the symptoms and effects of disease, consulting other Nahua healers for descriptions of the disease and possible cures. Indigenous medical knowledge surfaced only because Nahua writers resolved to record it. At the same time, colonial authorities attempted to discredit and persecute Nahua medical and religious practitioners, so the authors of the FC walked a fine line between preservation and resistance. If Nahua writers had not produced these texts, it would be impossible to study indigenous medical beliefs and practices of the period without relying on Spanish sources or "upstreaming" from the contemporary ethnographic record. Studying texts produced by indigenous authors in the



sixteenth century offers a fuller understanding of disease in the early stages of contact with Europeans. In their own language, Nahuatl writers referred to disease when referring to their own bodies, their physical environment, and their otherworldly connections. This chapter makes connections between concepts of illness and descriptions of disease found in these texts.

### **On the Breath of Infected Messengers: Initial Contact with Spaniards**

In recent decades, many scholars have used native-language writings from New Spain to recover indigenous perspectives and categories of thought that existed before and after the conquest. James Lockhart said it best that "only in the original language can the categories be detected, for in a translation one sees the categories of the translator's language instead."<sup>429</sup> Indeed, categories of illness found in Nahuatl texts are blurred by Spanish translations. The original concepts become almost invisible in modern English translations. Consequently, it is impossible to understand Nahuatl interpretations of the first epidemic without examining the terminology that Nahuas used for disease. Specifically, the Nahuatl text of the *Florentine Codex* (FC) reveals the Nahuatl view of how the dangerous and polluting Spaniards infected their people and caused the first disease epidemic.

The twelfth book of the FC relates the first infecting encounter between Moteuczoma's emissaries and the Castilians. The messengers boarded on Hernando Cortés' boat bearing lavish gifts. But once they offered the gifts, Cortés had them bound in iron at their ankles and necks. The Spaniards then fired guns or cannon and the messengers "fainted away and swooned, each one swayed and fell, they lost their senses."<sup>430</sup> The Nahuatl text uses the word *iolmicque* or their hearts died to describe the traumatic experience, indicating the physical nature of the pain. The

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<sup>429</sup> Lockhart, 1995, 8.

<sup>430</sup> Sahagún, 1979 [1575-70]: vol. 3, bk. XII, f. 8v.

Spaniards offered them food and drink to refresh them. It was only when the Spaniards helped them back to a sitting position and gave them food that the messengers “regained strength and got their breath back”.<sup>431</sup> The Nahuatl phrase could also be translated as “with this, they took their breath, with this, here they took breath” employing the words “their breath,” *imihio* and the inflected verb “they took,” *quicuique*. It is significant that the authors commented on how the first encounter affected the health of the Mexica messengers. The messengers experienced a frightening event and as a result, lost some of the vital forces of their bodies. It is clear from the image that accompanies the text that the messengers were completely knocked over (fig. 1). The Spaniards' weapons robbed them of their life force, their *ihiyotl*, breath. This event may appear simply as a Spanish attempt to demonstrate their military superiority. From the Nahua perspective, however, the incident was a bad sign of things to come. A loss of breath in the Nahua disease complex signified endangered health. The messengers were afflicted with fear to the extent that they lost their breath, their senses. The passage refers to the breath of the messengers again, when they flee from the Spaniards' boats.

The narrative in Book XII refers to the breath of the messengers in three subsequent passages, emphasizing the lasting effect of the encounter. On returning to Mexico, they stopped at Xicalanco in order to regain their *ihiyotl*.<sup>432</sup> The messengers stopped again at Tecpantlayacac, and elsewhere to take their breath (*ihioquiue*). The leader of Cuetlaxtlan urged them to stay and “restore their breath” (*amihio xiccuican*).<sup>433</sup> In response the messengers replied that they could not stay because they had to deliver the terrifying news to Moteuczoma. In their racing back with

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<sup>431</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 8v-9r.

<sup>432</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 10r.

<sup>433</sup> Ibid.

the terrible news of the encounter, the messengers' fear and physical exertion forced them to neglect their own breath. The first encounter affected the health and wellbeing of the messengers.

The messengers were filled with dangerous, polluting substances that could easily be spread to their leader. Nahuas believed that those who transgressed safe boundaries of behavior experienced contamination and "were harmful to anything around them, especially the very young, and offensive to the deities".<sup>434</sup> The authors of the FC understood that the messengers brought back dangerous contagion. They remembered or reasoned that Moteuczoma ordered a cleansing ceremony upon the return of the messengers. Moteuczoma must have been shocked by their emotional and physical state.

The leader of Tenochtitlan received the contaminated messengers with appropriate caution. Moteuczoma ordered that two captives be slain and that their blood be sprinkled on the messengers to cleanse them. The Nahuatl authors of the FC, in an uncharacteristic aside to the reader, explained in parentheses: "(The reason they did it was that they had gone to very dangerous places and had seen, gazed on the countenances of, and spoken to the gods)".<sup>435</sup> This rare use of parentheses suggests that the explanation was needed to understand the infectious nature of the messengers. The Nahuatl text uses the word *ohuican*, a word that Molina defined as "dangerous place" or "a dark and scary place."<sup>436</sup> The messengers warranted a cleansing ceremony because they had gone to a scary and dangerous place. They experienced terrifying events and were capable of spreading their contagion to others. They had repeatedly lost their breath. The accompanying image is reminiscent of the cleansing ceremonies that relied on

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<sup>434</sup> Burkhart, 1989, 96.

<sup>435</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 10v; Lockhart 1995, Lockhart explained that we are still very far from understanding the true meaning of "god" or *teotl* in Nahuatl.

<sup>436</sup> Molina, 2008 [1571]: 78r [second numeration], Karttunen 1992: 177.

brooms, described in chapter one (fig. 2). The image shows Moteuczoma seated to the left of the sacrificial victim. An official sprinkles the single captive's blood on the messengers, who are seated on the right side of the frame. The Nahua authors took pains to explain why such protection was necessary for their leader. Such an important figure needed to be shielded from the dangerous effects of the Spaniards. Ultimately, the leader of Tenochtitlan would suffer his own bout of poor health.

One explanation for Moteuczoma's suffering occurs in the text even before he sends his messengers to meet the Spaniards. Leaders who lived along the coast traded goods with the Spaniards. During one meeting, the leader of Cuertlaxtlan along and several other coastal leaders brought the Spaniards capes. The capes they offered were not simply clothing, they were garments that belonged to the great leader Moteuczoma. The authors noted that the capes were only to be worn by the leader, that they held "his fate" (*itonal*).<sup>437</sup> In her research on the meaning of god or *teotl*, Molly H. Bassett concludes that every living being possessed *tonalli*, a word whose expansive meaning includes fate, lot, privileges, and heat.<sup>438</sup> Recalling the *tonalli* concept in chapter one, the transfer of his personal capes indicated that a portion of Moteuczoma's privileges, fate or *tonalli* was also transferred to the Europeans. The transfer explains the ill health Moteuczoma experienced in the early stages of contact. In particular, the Mexica leader's heart was afflicted.

### **Moteuczoma's Heart Suffers: Leadership during the Invasion**

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<sup>437</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 5v.

<sup>438</sup> Molly H. Bassett, *The Fate of Earthly Things: Aztec Gods and God-Bodies*. Austin: University of Texas Press, 2014: 118.

Nahua concepts of illness reveal how the authors of Book XII remembered or imagined how Moteuczoma's health deteriorated when the Spaniards arrived. Words that describe Moteuczoma's emotional anguish also depict his decline in health. Nahua references to an afflicted heart can be understood as metaphors of emotional pain. But the Nahua linked emotional and physical pain. Hence these references to the heart indicate severe suffering. The Nahuatl text refers specifically to the health or the physical/emotional state of Moteuczoma, when the messengers returned and entered Tenochtitlan at night. The leader is said to have declared *vel patzmique in noiollo*--"my heart is greatly tormented."<sup>439</sup> The Nahua authors thought that Moteuczoma's heart was squeezed to death. In addition to a wrung-out heart, Moteuczoma felt as though his heart had been doused with chili water, *chilatequilo*.<sup>440</sup> The text showed that his heart was burned and made to suffer. These descriptions indicated that Moteuczoma had already begun to suffer the contaminating effects of the Spanish arrival.

Moteuczoma's suffering is not often acknowledged as a physical affliction. Lockhart noted that many scholars have concluded that the descriptions in Book XII suggest Moteuczoma's lack of courage, that he appears to be "quaking, indecisive, quiescent, effete".<sup>441</sup> In their efforts to understand the conquest, many scholars relied solely on the Spanish text and have imagined a weak Mexica leader who could not bring himself to act. William Prescott referred to Moteuczoma's response as a "pusillanimous policy" that led to the downfall of the Nahua people.<sup>442</sup> Prescott described the leader as "prey to the most dismal apprehensions" who

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<sup>439</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 10v.

<sup>440</sup> Ibid.

<sup>441</sup> Lockhart, 1993, 17.

<sup>442</sup> William Prescott, *History of the Conquest of Mexico*. London: Swan Sonnenschein & Co. 1891, 223.

"In a paroxysm of despair, shut himself up in his palace, refused food."<sup>443</sup> Prescott characterized Moteuczoma as a leader who lacked courage. Others have argued that portrayals of Moteuczoma's weakness were intended to make the leader a scapegoat for the defeat of his people.<sup>444</sup> Susan D. Gillespie noted that "Moteuczoma was reduced to if not terror, at least profound anxiety."<sup>445</sup> Here, the figure of Moteuczoma is "reduced" to a weaker state. Most have interpreted the narrative literally, that Moteuczoma was an ineffectual leader debilitated by fear. It is important to consider, however, how the word "fear" means something different to us today than it meant for a Nahua writing in the sixteenth century.

Moteuczoma was to blame only as much as the "patient zero" of any disease is to blame for the start and spread of an epidemic. The messengers, despite their fear and fatigue, appear blameless but they surely afflicted their leader. The messengers, after the ceremony, related news that aggravated Moteuczoma's affliction. The news of the Spaniards caused him to be depressed, to faint, employing the verb *quiiolmicti*, "it made his heart die."<sup>446</sup> The authors of the FC repeated their interpretations of Moteuczoma's reaction in the concluding paragraph. When he heard the news, he "seemed to faint away, he grew concerned and disturbed".<sup>447</sup> The phrase contains three verbs referring to the state of Moteuczoma's heart. First, "it was as if his heart died" (*ihquin iolmic*), a metaphor for fainting. Second "his heart was troubled" or afflicted

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<sup>443</sup> Ibid, 257.

<sup>444</sup> Lockhart, 1993, 17.

<sup>445</sup> Susan D. Gillespie, "Blaming Moteuczoma" in *Invasion and Transformation: Interdisciplinary Perspectives on the Conquest of Mexico*. Rebecca Pr. Brien and Margaret A. Jackson, eds., Boulder: University Press of Colorado, 2008, 31. Gillespie explains that Moteuczoma's actions of fear and indecisiveness represented methods used by indigenous authors to chronicle their resistance and accommodation to the new colonial rule.

<sup>446</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 11v.

<sup>447</sup> Ibid.

(*moioltequipacho*), referring to pain and anxiety.<sup>448</sup> Third, his heart was disturbed (*moiollacoma*).<sup>449</sup> When the leader learned that the Spaniards desired to meet him, "to see his face," Moteuczoma experienced severe trauma. The Nahuatl text employs two parallel expressions: *ihquin patzmiquia yiollo*, *iolpatzmiquia*, which can be translated literally as "as if his heart was killed by crushing or bruising," referring to his anguished state.<sup>450</sup> The terms emphasize the harmful, crushing, heart-stopping effect of the news. The Nahua authors remembered that the Spaniards possessed the power of causing sickness, even before they reached Tenochtitlan.

As Moteuczoma learned about the powerful invaders, he attempted to send sickness to the Spaniards. He assembled several formidable men, specialists who possessed magical powers to be used against the approaching Spaniards. The men sought to cast spells on the invaders "so that they would take sick, die, or turn back."<sup>451</sup> Moteuczoma did not send his best warriors to attack the Spaniards. Instead, he hoped to fight them by unleashing sickness or *cocoliztli* on them, just as they had sent sickness to him. The men returned from their mission, however, admitting "we are not their match; we are as nothing."<sup>452</sup> When Moteuczoma heard that the men could not stop the invaders by inflicting sickness or death on them, he succumbed to pain and despair.

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<sup>448</sup> Molina, 2008 [1571]: 105v [second numeration]; Karttunen 1992: 232.

<sup>449</sup> Molina, 2008 [1571]: 39v [second numeration].

<sup>450</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 13v.

<sup>451</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. XIIv, *inic aço cocolizcuique, mimiquizque, in anoce ilotizque*; Molina 2008 [1571]: 115v [second numeration], Moline defined *tlacatecolo* as demon or devil but Moteuczoma called upon them in his time of need attesting to their powers.

<sup>452</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 13r.



The health-threatening nature of Moteuczoma's malady is revealed in another part of the FC chapter that describes his heart. Moteuczoma discussed his pain with those closest to him, his trusted advisors. He decided to search for a remedy by retreating to a purifying cave.<sup>453</sup> The cave retreat was a form of healing. The Nahuatl text confirmed its therapeutic nature. The purpose of the cave retreat was to find a cure (*inic vmpatiz*).<sup>454</sup> The Nahuatl text used the verb *patia* meaning to cure or heal a sick person.<sup>455</sup> His advisors were not able to help him find a remedy, however, and the leader braced himself for the approaching Spaniards.

As Moteuczoma waited for the Spaniards, he referred repeatedly to his ailing heart. The Nahuatl text tells us that Moteuczoma eventually mastered his heart (*moiollotechiuh*).<sup>456</sup> Two more phrases referred to Moteuczoma's heart and health before the arrival of the Spaniards. One phrase, *quioalcentlanqua in iollo*, indicates that he managed to master his heart, in spite of his struggles. The descriptions of Moteuczoma's suffering heart confirm his overall ailing health.

The Nahua authors of Book XII remembered a deeply troubled leader of Tenochtitlan. During the initial stages of contact Moteuczoma "neither slept nor touched food...He tired and felt weak. He no longer found anything tasteful, enjoyable, or amusing."<sup>457</sup> The Spanish column translates these conditions simply as sadness and fatigue.<sup>458</sup> The Nahuatl describes symptoms of poor health that are translated into Spanish as a general state of weariness. The translations do not adequately explain his illness. The text of the FC clearly points to the condition of "soul loss"

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<sup>453</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 14v.

<sup>454</sup> Ibid.

<sup>455</sup> Molina, 2008 [1571]: 80r [second numeration]; Karttunen 1992: 184.

<sup>456</sup> Molina, 2008 [1571]: 92v [second numeration] The word includes the noun for heart *yollotl* and the suffix-*techiuh*, owner or ruler.

<sup>457</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 10r.

<sup>458</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 10r, "sino estava muy triste...estava con grande congoxa"

by referring to the *tonalli* associated with the capes given to the Spaniards. Descriptions of fright illness in colonial and modern sources suggest that Moctezuma suffered from *susto*, not cowardice.

For example, when the messengers rushed back to Tenochtitlan, they described their news as very terrifying or *cenca temamauhti*.<sup>459</sup> The translation is correct, Molina's *Vocabulario* defines *temamauhti* as a frightening or fearful thing.<sup>460</sup> However consider how a similar entry on the same page, the noun *temauh*, is relevant here: *temauh* is defined as an infectious thing, something that gives sickness to others. The following entry, *temauh cocoliztli*, refers to contagious sickness. After these two words related to disease, the *Vocabulario* lists *temauhti* as something that scares or puts fear into others.<sup>461</sup> These nouns come from two different verb roots that share the same form in the past or preterit tense, *omauh*.<sup>462</sup> In the preterit form, both verbs drop their final vowel, resulting in *mauh*. The similarities between the words suggests a direct connection between of fear and illness in Mesoamerican culture. The Nahua authors explained how the news made the Nahua leader suffer. The physical, spiritual, and emotional consequences of the encounter destroyed the leader's health and, ultimately, the health of his people.

The health of the Nahua leaders, the *tlatoque*, had a direct impact on the welfare of their people. Miguel Pastrana Flores has noted how the failures of leaders could leave the city in grave

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<sup>459</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 10r.

<sup>460</sup> Molina, 2008 [1571]: 97r [second numeration].

<sup>461</sup> Molina, 2008 [1571]: 97r [second numeration].

<sup>462</sup> Molina, 2008 [1571]: 54r [second numeration]; Karttunen 1992: 132, The verb *mahu(a)* referring to illness contains a long first vowel (Ā) while *mahu(i)*, the verb to be frightened, does not; Siméon 2010: 363-4, Siméon notes that both verbs appear the same in the preterite form of *omauh* and can only be distinguished by the second verb that takes an object.

danger.<sup>463</sup> Book VI of the FC on Rhetoric and Philosophy confirms this connection with two adages linking the health of the leader to the condition of his people. One proverb admonished rulers to ignore their suffering and eat well because "anguish will become a grave sickness".<sup>464</sup> Another described the results of the leader's behavior as pain, sickness, or famine. It likened the punishment of sickness to the leader throwing cold water on the people. This connection between the health of the *tlatoani* or leader and the condition of his people sheds light on how the authors of Book XII imagined Moteuczoma's health in the light of the welfare of his people, the body politic.

### **Fear Spreads: The Altepetl Suffers Invasion**

The violent actions of the Spaniards on the ships infected the messengers who, despite a cleansing ceremony, passed the affliction onto Moteuczoma. As the leader and speaker, the *tlatoani*, for many people, it was only a matter of time before the illness would pass onto those people. The Nahua authors of Book XII explained the imminent health disaster by focusing on these conditions. In the introduction to his translation of Book XII, Lockhart objected to scholars who concluded that the Nahua were "a people shocked out of its senses, amazed, bewildered, overwhelmed, benumbed by intruders, paralyzed, fate-ridden, prepared for imminent doom and disappearance"<sup>465</sup> Lockhart continues to state he believed the image of the cowardly Nahuas to be erroneous but that it is not possible to consult immediate postconquest Nahuatl documents. The FC is the best source to understand the history of fright and Nahua communities

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<sup>463</sup> Pastrana Flores, *Historias de la Conquista*, 2009: 135.

<sup>464</sup> Sahagún, 1979 [1575-70]: vol. 3, bk VI, f.210r-210v.

<sup>465</sup> Lockhart, 1993: 5.

postconquest. I argue that the fright documented in Book XII should be considered early symptoms of the diseases that would devastate Tenochtitlan a year later, in 1520.

The idea of Moteuczoma as a scapegoat does not adequately explain the fact that the Nahua authors of Book XII also describe the common people as debilitated by fear. It was not only the leader who suffered. When Moteuczoma processed the news about the new threat to his altepetl, he began to weep. According to the text, when the leader suffered his people suffered too, found in the FC as “he told the troubles of the altepetl.”<sup>466</sup> At that point, everyone experienced tremendous fright. During that time “fear reigned, and shock, laments, and expressions of distress.”<sup>467</sup> Even the arch-enemies of the Mexica, the Tlaxcalans, endured the oppressive fear brought by the Spaniards. When the Tlaxcalans heard about Spanish massacres “they became limp with fear, they were made to faint and fear took hold of them.”<sup>468</sup> The Tlaxcalans, thus weakened with sickening fear, decided to ally themselves with the Spaniards to avoid the massacre of their own people.

The news of the killings caused even greater suffering for Moteuczoma’s people. Many messengers reported on the Spanish-led massacres in Tecoaac and Cholula causing great fear among the people in Tenochtitlan. The news so completely upset the natural order of the world that the text of the FC explains that the land itself began to shake, as if there were an earthquake. For the people, it “was as if everything were spinning before one’s eyes. People took fright.”<sup>469</sup> The earth and the people experienced such shocks that each reacted in ways that expressed their

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<sup>466</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 13r, *quitlatenmachili in altepetl*.

<sup>467</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 13v.

<sup>468</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 15r.

<sup>469</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 17r.

suffering: the land dangerously quaked and the people felt sickening fear. Intense fright took hold of the people of Tenochtitlan when the Spaniards marched into their city.

Mexica fears intensified after the first meeting between Moteuczoma and Cortes, despite the calm words spoken. The text recounts that the Spaniards entreated the Nahua leader to “be at ease, let him not be afraid.” The phrase for being at ease is *ma moiollali*, which can be translated literally as “let his heart be composed.”<sup>470</sup> People's hearts were anything but composed when the Spaniards took their leader captive and occupied his palace. Once again, the people witnessed a major upheaval of the natural order. It was a time when “everything became confused...Fear reigned, as though everyone had swallowed his heart...everyone was terrified, taken aback, thunderstruck, stunned.”<sup>471</sup> The Spanish translation reveals the intense nature of fear, stating that “both those present and those absent conceived a mortal fright.”<sup>472</sup> The fright was not confined to those who witnessed Moteuczoma being taken captive. The deathly fear spread to all the people of the altepetl. The Nahuatl text includes everyone in their descriptions; these descriptions of widespread fear sound more like an infectious disease than fright.

The text takes pains to point out the infectious nature of the fright. As the Spaniards looted the palace and demanded food, the Nahuas continued to suffer. During Moteuczoma's captivity “Fear greatly prevailed; it spread about.”<sup>473</sup> The Nahuatl phrase contains another facet of the fear during the time of the conquest. In the phrase for “it spread about,” *maviztli moteteca*,

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<sup>470</sup> Molina, 2008 [1571]: 40r [second numeration] *yollalia*; Molina 2008 [1571]: 40v [second numeration] *yollotl*; Molina 2008 [1571]: XII4r [second numeration] *tlalia*.

<sup>471</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 11r.

<sup>472</sup> Ibid.

<sup>473</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 29r; Molina 2008 [1571]: 106r [second numeration] *teteca*.

the first noun *mauiztli* means fear or something worthy of respect or awe.<sup>474</sup> The noun sheds light on another element of terror for Nahuas writing in the sixteenth century: fear always existed in relation to respect. They knew that anything worth of marvel and respect was also a force to be feared.

The Nahua authors took care to describe the Spaniards in ways that reflected the fear and respect they held for them. Descriptions of the Spanish armor reveal a fascination with their use of brilliant metals. The authors explained that some of the Spaniards “came wearing iron all over, turned into iron beings, gleaming, so that they aroused great fear and were generally seen with fear.”<sup>475</sup> The Spaniards' awesome battle gear terrorized the people. Their march and the stench of their guns and animals filled the air with filth. Nahuas viewed filth as both a health hazard and a reflection of moral character.

### **The Pollution of Stench and Filth**

Recalling the concept of *tlazolli* from chapter one, this section considers how the Spaniards introduced polluting forces that overwhelmed the Nahuas. The Nahua authors of the FC described in detail the polluting forces that caused disequilibrium and poor health. Polluting materials of disorder included dust, dirt, sweat, spit, and any other substance with a foul odor. The authors described the polluting force of filth during the conquest in the form of sweat, stench and dirt. Filth abounds in the Book XII account.

The Nahua considered the Spanish, especially when arrayed for war, to be very filthy. The Nahua authors describe the approaching Spanish and their auxiliary indigenous forces, arrayed for battle. The Nahuatl column reads "They came stirring up dust, with their faces all

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<sup>474</sup> Molina, 2008 [1571]: 54v [second numeration].

<sup>475</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 17r.

covered with earth and ash, full of dirt, wrapped in dust, dirty."<sup>476</sup> Here, the Nahuatl authors explain the filthiness of the invaders. The Spanish column translates the same sentence "news came that Captain don Hernando Cortés was coming in great haste with many Spaniards and many Indians of Cempohualla and Tlaxcalla, all armed and ready for war."<sup>477</sup> The translation refers to the approaching invading forces but omits the description of filth. After another attack on the unarmed indigenous inhabitants of Cholula, the Spaniards are described as "coming gathered and bunched, raising dust."<sup>478</sup> The treachery of the Spaniards is vividly portrayed in their dirtiness, in their stirring up of dust.

The Nahuatl authors detailed the military formation of the Spaniards as they marched towards the city. The text described the cavalry, noting how the horses sweated so much it was as though "water seemed to fall from them, and their flecks of foam splatted on the ground, like soapsuds splatting."<sup>479</sup> The artist represented the shocking abundance of sweat flowing from the horses by using a traditional Nahuatl glyph for water flowing from the mouth and neck of the animals (fig. 3 and 4).<sup>480</sup> In addition to the horses, the dogs brought by the Spaniards were depicted as large threatening animals. As the Spaniards marched they always kept the dogs in front "panting, with their spittle hanging down."<sup>481</sup> It is also important to recall that the Spaniards used their horses and dogs as weapons in war. They trained their horses for reconnaissance missions, in addition to flanking their enemies; they sicced their mastiffs on

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<sup>476</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 37r.

<sup>477</sup> Ibid.

<sup>478</sup> Sahagún 1979 [1575-70]: vol. 3, bk XII, f. 17r.

<sup>479</sup> Sahagún 1979 [1575-70]: vol. 3, bk XII, f. 22v.

<sup>480</sup> Boone, 2000, 34.

<sup>481</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 17r.

victims. In fact, death by dogging, or intentional dog attack, continued through the colonial period.<sup>482</sup> The horses and dogs, covered in sweat and spit, struck the Nahua as hazardous sources of filth. The Nahua viewed these new, dangerous animals as part of the new threat.

Spanish weapons were another threat to the health of the Nahua. The messengers reported the terrible power of the weapons stating, “how the guns went off...causing people actually to swoon...and the smoke that came from it had a very foul stench, striking one in the face.”<sup>483</sup> The news shocked the Mexica leader, who was soon exposed to the foul stench in his own home. The Nahua authors explained that when the Spaniards entered the ruler’s palace they began to shoot their harquebuses. Their weapons filled the palace with thundering noises and filthy smoke. From firing the weapons “smoke spread, it grew dark with smoke, and everyplace filled with smoke. The fetid smell made people dizzy and faint.”<sup>484</sup> The Spanish translation ignores entirely the details of the threatening weapons. Instead, we read: “In all the rest of this chapter, nothing is said except the order that the Spaniards and the Indian allies kept when they entered Mexico.”<sup>485</sup> In the space alongside the Nahuatl text where a Spanish translation would have been located, the authors drew images depicting the sequential order of the Spaniards as they marched. One image shows many Spaniards, dressed in iron armor, shooting off their weapons. They make a cloud of smoke. The invaders sullied the palace, which is drawn behind them (fig. 5). The Nahuatl text and image reveals the filthy nature of the invaders, while the Spanish text quickly summarizes

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<sup>482</sup> Lori Boornazian Diel, “Manuscrito del aperreamiento (Manuscript of the Dogging): A “Dogging” and Its Implications for Early Colonial Cholula” *Ethnohistory* (2011) 58(4): 585-611; Robert M. Denhardt, “The Horse in the Americas: Historical Sketch and Bibliography” *Southwest Review* 32(1947) pp. 46-53.

<sup>483</sup> Sahagún 1979 [1575-70]: vol. 3, bk XII, f. 11r.

<sup>484</sup> Sahagún 1979 [1575-70]: vol. 3, bk XII, f. 23r-23v.

<sup>485</sup> Sahagún 1979 [1575-70]: vol. 3, bk XII, f. 22r.



their arrival. For the Nahua authors and the elders whom they consulted, the order of the invaders and the exact nature of the threat were important details of the narrative.

Another scene demonstrates the connection between stench and the treacherous violence of the Spaniards. During a celebration in the main ceremonial plaza of Tenochtitlan, Spaniards blocked the entryways and killed all the Nahua participants. The Nahuatl text describes the Spaniards in detail as they hacked people to pieces. Because of the attack, the main temple, the most sacred of places, began to stink terribly and the "blood of the warriors ran like water; the ground was almost slippery with blood, and the stench of it rose up."<sup>486</sup> The Nahua authors associate the deceit of the attack with a rotten smell. In contrast, the Spanish text omits all the sensory details by simply saying that "They stabbed and lanced everyone they encountered, performing a great slaughter."<sup>487</sup> The Nahuas represented the slaughter in vivid detail and drew attention to the rotten odor of the foul deeds. The Spanish version of the attack leaves out the details of smell, details that Nahuas believed were central to understanding polluting filth, details that were unimportant for a European audience. The dirt and stink of the Spaniards offended Nahua sensibilities. They would not stand for such disgusting and polluting beings. As the stench of the massacre cleared the Mexica brought war to the Spaniards and expelled them from their city.

### **Sweeping Away Dirt, Cleansing the Altepetl**

The Nahua worked to reclaim their environs after the Spanish retreat. The Spaniards brought filthy animals, weapons, dirt, and traitorous deeds that polluted the city. After the Spaniards sullied Tenochtitlan and its people with many different types of filth, the Nahua

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<sup>486</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 33v.

<sup>487</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 32v.

sought to reclaim the cleanliness and healthiness of their city. They tried to cleanse the most sacred of spaces, their contaminated temple. The fact that the Spaniards attacked and polluted their temple during an important festivity made immediate cleansing all the more urgent. As discussed in chapter one, sweeping was a principal method of cleaning. The broom combated spiritual and physical filth. According to Burkhart, “the broom *was* a weapon...defense against invading dirt and disorder, peripheral forces that, like the enemies of the state, threatened the maintenance of order.”<sup>488</sup> Burkhart explores the act of sweeping as the most characteristically Mesoamerican mode of expressing the removal of filth.<sup>489</sup> The text and image present a city and people hopeful to reclaim their traditions and daily lives (fig. 6). The Nahuas try to restore the main temple in Tenochtitlan to its rightful reverential state. The main temple is “swept and cleaned out, and the earth was removed.”<sup>490</sup> The artists drew eight figures surrounding the main temple. It shows Nahuas carrying away baskets of dirt and using straw brooms to sweep the steps of the temple.

The Nahuas swept the temple to rid it of the desecrating filth brought by the Spaniards, and also to prepare it for the festival of *Huei Teucilhuitl*. There are two calendar-based ceremonies in Book XII. The first is the festival of *Toxcatl*, dedicated to the God Huitzilopochtli, and the second is during the month of *Huei teucilhuitl*. During the first festival for Huitzilopochtli, the authors wrote a long description of how their predecessors dressed in ceremonial garb and revered the god. They implied that the rituals were changed in response to Spanish religious persecution. After they created the statue of Huitzilopochtli they traditionally

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<sup>488</sup> Burkhart, 1997, 35.

<sup>489</sup> Burkhart, 1989, 117.

<sup>490</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 51v.

took him up to his temple but “at this time they no longer took him up or raised him to the top of his temple.”<sup>491</sup> There are four different illustrations (fig. 7-9) of Huitzilopochtli seated at the base of the stairs to the temple. Previously the statue was placed at the top of the temple stairs; the images suggest some disrespect by in placing him at the bottom, below his own temple. The placement of the statue at the base or outside of his revered place is of great significance. Once the Spaniards had gone, the Nahua could hold their ceremonies at the top of the temple. The image depicting *Huei teuculhuítl* clearly shows the ceremony held in its cleansed and rightful place (fig. 10). The Nahua worked to eradicate the filth and disrespect that the Spaniards had brought to their sacred places and festivities.

As the festival began, dancing and other rituals commenced. The authors refer to another act that was full of meaning to the Nahua authors. They wrote that during the time of the dancing ritual “Anyone who needed to [leave to] relieve himself put down his net cape and forked heron-feather ornament [as a signal].”<sup>492</sup> It is unclear whether this actually occurred, or whether it was a hypothetical situation. In any case, it was an important reference because urinating in the temple was a serious act of creating filth--a *tlatlacolli*. A filth inducing act or *tlatlacolli* included “the breaking of a ritual taboo or prescription that could anger the gods so that they punished the miscreant with disease.”<sup>493</sup> The authors even referred to the punishment for those who urinated in the temple: “when anyone absolutely would not obey...they beat him soundly”<sup>494</sup> and threw him out of the ceremony. The illustration shows a man brandishing a club to punish anyone who

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<sup>491</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 31v.

<sup>492</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 31v.

<sup>493</sup> Burkhardt, 1989, 171.

<sup>494</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 32r.

would commit an act of pollution in the temple (fig. 11). Polluting the temple brought severe punishment. The Mexica once declared war against the Colhua because they left a gift of excrement in the Mexica main temple.<sup>495</sup> As for the urinator, leaders “shoved him outside the precinct, they threw him out, pushing him so he fell flat on his face; he went out on his face, on his ear.”<sup>496</sup> Burkhart writes of a temple official listed in Book II called “tlacolquacujlli, guardian of the Mecatlan temple, responsible for seizing and punishing anyone who defiled the temple by urinating there.”<sup>497</sup> The penalty for committing the *tlatlacolli* of urinating in the temple was harsh because it spread filth in a sacred place.

The Nahua tried to clean up the filth that piled up after their first encounter with the Spaniards. Despite their cleansing efforts, the city and its people had been exposed to unhealthy conditions that could only result in illness. All the filth led to the outbreak of epidemic disease in Tenochtitlan. The Nahua authors, fully aware of the destructive force of the epidemic, described the filthy conditions in detail that led to the first outbreak.

The image that follows the description of the Teucilhuitl festival is one of the most disturbing in the manuscript: victims of the first great epidemic disease in Tenochtitlan, in the year 1520. The illustration shows five smallpox victims lying on woven mats wrapped with blankets; one victim is crying out in pain as he stirs on his mat (fig 12). The death and pain associated with disease was part of the violence and destruction of the conquest. This scene marks a turning point in the memories of the Nahua authors, who all came from the area in or around the capital. After attempting to clean the temple and restore tradition, a major disease

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<sup>495</sup> Burkhart, 1989: 89-90; Codex Aubin, f. 21v.

<sup>496</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 31v.

<sup>497</sup> Burkhart, 1989: 90.

arrived. The text claimed that “no one took care of others any longer”<sup>498</sup> but the image portrays a female healer attending to the sick (fig. 12). In Nahua society, both women and men served as healers, a fact ignored by most European texts of the period. Another aspect of the epidemic overlooked by Europeans at the time, was the disastrous effect of disease on Nahua abilities to defend their city.

The chapter in Book XII that describes disease comes after the expulsion of the Spaniards from the city, but before the Spaniards remount an attack. The text explains “before the Spaniards appeared to us, first an epidemic broke out, a sickness of pustules.”<sup>499</sup> The authors identified the sickness of pustules as *cocoliztli totononaliztli*. The noun *cocoliztli* conveyed a meaning that is not represented in Spanish words for disease. For the Nahua authors, *cocoliztli* signified a major social disruption or great pain. Molina's *Vocabulario* defined *cocoliztli* simply as sickness. But in a Mesoamerican world devoid of epidemics, I infer that the word had a meaning closer to the verb on which it is based, *cocoa*. Molina defined *cocoa* in different ways, depending on its prefix, as being hurt or sick, and when transitive to hurt another person. Frances Karttunen acknowledged the intersection of meaning between hurt and sickness. In an attempt to address the separate entries with similar meanings, she wrote under the entry for *cocoa*, “the sense of 'to be sick' may arise from confusion with *cocoy(a)*, or it may derive from the shared sense of pain”.<sup>500</sup> The applicative form of the verb, *cocolia*, meant to “hate or wish someone

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<sup>498</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 53v.

<sup>499</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 53v.

<sup>500</sup> Karttunen, 1992, 38.

ill."<sup>501</sup> The term possessed a semantic range from physical disease to hatred, suggesting that Nahuatl concepts of illness and hatred were much the same.

Molina defined *tlazolli* as "rubbish one throws on the trash heap," whereas Burkhart outlines a range of meaning that "draws materials principally from the realms of excretion and decay to associate them, through the process of moral rhetoric, with negatively valued behaviors".<sup>502</sup> In contrast to *viruela* or *pestilencia*, *cocoliztli* indicated the social conditions of disaster, along with the physical suffering from disease. The text explains that the "pustules that covered people caused great desolation; very many people died of them."<sup>503</sup> The result of the diseases was written succinctly in the Nahuatl column. It reported that due to *cocoliztli* that very many of the local died or that "very many of we people here died."<sup>504</sup> The Nahuatl column carefully denoted that the disease afflicted indigenous people, but not the Spaniards, with the phrase "*nican tlaca*." Lockhart translated this phrase as "we people here", one of the only Nahuatl terms in the text that "indicated the local, native inhabitants of central Mexico."<sup>505</sup>

The negative social aspects associated with *cocoliztli* are clear when comparing it to other words used for disease. These terms have meanings clearly related to the physical appearance of lumps or swelling of sections of skin. Many of the Nahuatl words for disease were descriptive terms lacking broader meanings. For example, *totomoniliztli* is a noun that refers to pustules or

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<sup>501</sup> Molina, 2008 [1571]: 23v [second numeration].

<sup>502</sup> Burkhart, 1989, 89 and Molina 2008 [1571]: XII0r [second numeration].

<sup>503</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 53v.

<sup>504</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 53r.

<sup>505</sup> Lockhart, 1993: 13.

blisters.<sup>506</sup> Another common noun was the word *zahuatl*, pox or rash.<sup>507</sup> The words describing the physical symptoms were often used in combination with *cocoliztli*, indicating that widespread deadly disease consisted of more than bumps on the skin.

The noun based on the verb *cocoa--cocoliztli*--refers to widespread pain, including all types of hatred and suffering. The explanations of harmful acts causing suffering found in the FC reveal the moral judgment of the authors. Burkhart argues that "moral discourse operated not on the assumption that acts had polluting effects but on the assumption that the pollution resulting obviously and directly from the act would bring with it a host of other nasty effects".<sup>508</sup> The Nahuatl authors of the FC documented social disruptions in their choice of language; they chose to describe the first epidemic with the term *cocoliztli*.

In reference to disease, the Nahuatl text confirms that "The Mexica warriors were greatly weakened by it."<sup>509</sup> The translation matches the Nahuatl nearly word-for-word until the last sentence about the weakened warriors. Ironically, the final sentence of the Spanish language column remarks that the Nahuatl "resisted them strongly."<sup>510</sup> In fact, the authors carefully placed their discussion and striking image of disease within a sequence of conquest images in such a way as to suggest that disease was the tipping point in hostilities between Nahuatl and Spaniards. Disease and the conquest were intertwined. The painters and authors of the FC used language and visual strategies to communicate this association between *cocoliztli* and conquest.

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<sup>506</sup> Molina, 2008 [1571]: 150v [second numeration]).

<sup>507</sup> Siméon, 2010, 71; Karttunen, 1992, 345.

<sup>508</sup> Burkhart, 1989, 99.

<sup>509</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 54r.

<sup>510</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 53v.

## Diseased Images: Pictorial Annals on the Conquest

Nahua writers and artists employed their own vocabulary and pictographic traditions to portray the devastation of introduced diseases. The following section examines how the Nahua writing genre of annals addressed the topic of disease in the sixteenth century.

Visual annals connect a sequence of years to a series of glyphs or pictorial representations of important events associated with that year. Initial contact with Europeans occurred Mexico in 1519, the year 1 Reed in the Nahua calendar; the epidemic occurred in the year 2 Flint or 1520. The visual representation of the fall of Tenochtitlan was not attributed directly to the military might of the Spaniards. Instead, the authors/artists depict disease as the most memorable factor that preceded and contributed to the defeat of the Mexica. Images of the invasion in the year 1 Reed is not depicted in the same way that the Mexica conquests of indigenous enemies are depicted. Elizabeth Hill Boone examines warfare waged by the Mexica in a series of pictorial annals. Mexica artists signaled conquest utilizing three distinct glyphs: burning an enemy temple; grasping the hair of a combatant and thereby taking an enemy prisoner; and piercing the place glyph or temple with an arrow. (fig. 13).<sup>511</sup> Nahua authors of the annals-style texts, the *Codex Mexicanus* and *Tira de Tepechpan*, visually link disease with the burning of the Templo Mayor. References to Spaniards appear before and after this event, but none are associated with the burning of the temple. Instead, the *tlacuiloque* linked images of disease and the deaths of leaders with the Spanish "conquest" of Tenochtitlan.

The *Codex Mexicanus* makes a direct association between the fall of Tenochtitlan and epidemic disease in the year 2 Flint. This source was most likely created by a Nahua author in the later part of the sixteenth century. The manuscript begins with the Mexica migration legend

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<sup>511</sup> Boone, 2000, 59.



from Aztlan and ends in 1590, integrating the Spanish invasion into a longer history of the Mexica. The authors mark the arrival of the Spaniards in 1 Reed with an image of a bearded figure dressed in European armor, holding a banner. The artist connected using a line the following year glyph of 2 Flint to a victim of disease (fig. 14).<sup>512</sup> He appears on his side, his skin covered in pustules; above the victim is a burning temple, a clear sign of conquest. Below the year sign, the artist drew a succession of leaders after the death of Moteuczoma as the history of the Mexica leaders continued through the colonial period. The manuscript seems to attribute conquest, represented by a burning temple, to disease, not Spanish conquistadors.

The *tlacuiloque* authors of the *Tira de Tepechpan* painted disease as a ruinous precursor to the return and final victory of the Spanish forces. The *Tira de Tepechpan*, a Nahuatl annal structured as a time-line record of events, represents a local record of memorable events in central Mexico from 1498 through 1596. The town of Tepechpan is located to the north of Texcoco. According to Lori Boornazian Diel, the manuscripts multiplicity of authors and audiences suggests that the work was a product of the colonial period, written not in one specific period but compiled over the course of generations.<sup>513</sup> One section of the *Tira* annals related the history of the conquest as it related to a succession of dynastic rulers. The year 1 Reed displays the arrival of Cortés, whose image is located below the year sign. The following year, 2 Flint, records the onset of epidemic disease with the image of a seated man whose skin is covered in pustules (fig. 15). Above the seated man is the funeral bundle of Ometochtli, Lady 2 Rabbit, regent of Tepechpan, who died of the disease. Below the year sign, in the Tenochtitlan sphere of events, is a burning Templo Mayor, the death of Moteuczoma, and the accession of Cuitlahuac,

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<sup>512</sup> Mengin 1952: Codex Mexicanus, fos.76-77.

<sup>513</sup> Diel, 2008, 9.

who reigned for eighty days until his death from disease. Again, this sequence of important events attaches great significance to the devastating impact of disease, without even referring to a war. The *Tira de Tepechpan* also contains Nahuatl annotations, noting that the deaths resulted from the illness of pustules or *çahua*. References to disease in the alphabetic text and images suggest that disease defined the year 2 Flint, not a war with the Spaniards.

The violence, filth, and fright illness of the conquest brought about disease. The ineffectual efforts of Moteuczoma and his people to cleanse their physical and spiritual spaces could not prevent the outbreak of deadly disease. The leader who succeeded Moteuczoma, Cuitlahuac, succumbed to the filth.

### **The Short Reign of Cuitlahuac**

Cuitlahuac died after only eighty days of rule after falling ill from the epidemic.<sup>514</sup> His death is not mentioned in Book XII, but a section of Book VIII dedicated to the rulers and nobility registers notable event in each ruler's reign. The first chapter features only the rulers of Tenochtitlan, beginning with Acamapichtli, the first great tlatoani of the altepetl, and ending with don Cristóbal Cecepatic in 1560. Each of the sixteen rulers' merits at least a sentence on the duration of their rule, followed by a longer explanation of extraordinary events, if any, that occurred during their reign. The authors note major natural disasters and violent conquests. However, events that occurred before Moteuczoma's reign get little attention. For example, during the four-year reign of Tiçocicatzin they simply note: "No wars were made in his reign."<sup>515</sup> Not only did the authors write more for the nineteen years of Moteuczoma's rule, they included legendary accounts in the narrative.

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<sup>514</sup> Sahagún, 1979 [1575-70]: vol. 2, bk VIII, f. 3v-4r.

<sup>515</sup> Sahagún, 1979 [1575-70]: vol. 2, bk VIII, f. 2.

After simple descriptions of drought and famine during the initial years of Moteuczoma's reign, the authors describe several events foretelling the arrival of the Spaniards and the fall of Tenochtitlan. For example, a house beam broke out in song and the goddess Ciacoatl appeared, wailing in grief at her imminent departure. The following scene involves a sick woman, recalling the introduction of disease during the conquest. The authors recount that a high born, or woman of quality, died of *cocoliztli*. She then rose from the dead to speak with the doomed leader, saying "I have come to tell you that you will come to an end. With you the reign of Mexico ends...They will come to subjugate the land; these will occupy Mexico."<sup>516</sup> The story highlights the importance of illness as a factor in the conquest.

The conquest narrative of Book XII did not address directly the cause of death of Moteuczoma, and did not even mention his successor, Cuitlahuac. Rather the narrative proceeds directly to the rule of Quauhtemoc, the successor of Moteuczoma. Perhaps the brevity of Cuitlahuac's rule did not merit mention, but one would think that even a reign of eighty days during wartime was noteworthy. It was during his brief reign that the Spaniards were expelled from the city, an event described in detail in Book XII. Book VIII confirms that it was during Cuitlahuac's reign that the people suffered from the first strike of epidemic disease. The authors relied on Nahuatl terminology to describe a disease that had "never once been seen before; never had it been suffered in Mexico."<sup>517</sup> They described the plague as the great rash, the great pustules without resorting to the Spanish loanword *viruela*. Thus, the authors understood that the epidemic was a completely new phenomenon but never once relied on loanwords to describe it.

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<sup>516</sup> Sahagún, 1979 [1575-70]: vol. 2, bk VIII, f. 3r.

<sup>517</sup> Sahagún, 1979 [1575-70]: vol. 2, bk VIII, f. 4r.

Book VIII describes how widespread death from disease led to a crisis: how to dispose of an unprecedented number of decomposing corpses. The authors remembered how traditional methods of disposing corpses were abandoned during the rule of Cuitlahuac. They recounted that people could no longer burn or bury the bodies, but instead threw them into the water resulting in “a great, foul odor; the smell issued forth from the dead.”<sup>518</sup> The Nahuatl authors paused in their narrative of the reign of Cuitlahuac to reflect on the hazardous nature of stench. They associated the rotten smell with the treachery of the war, the truncated reign of Cuitlahuac, and the fall of their people.

The Nahuatl historian known as Chimalpahin commemorated the rule of the leader who perished from disease. Referring to the year of 1520, Chimalpahin wrote “in the said year the lord Cuitlahuac was installed as ruler of Tenochtitlan; at that time, the Spaniards were in Tlaxcala. For only 80 days he was ruler in Tenochtitlan; it was in the same said year that he died; pustules [totomonaliztli] were what carried him off.”<sup>519</sup> Chimalpahin and another source, the *Codex Aubin*, were directly concerned with the history of the central altepetl and did not neglect to note the reign of Cuitlahuac.

A set of annals that record the history of the Mexica people from 1168 until the 1570’s, known as the *Codex Aubin*, documents epidemics beginning with the arrival of Spaniards. The codex, written in over 15 years from 1562 to 1576, records Mexica memories of the war, from the perspective of the Tenocha. Unlike many other pictorial sources, the *Codex Aubin* records the death of Moteuczoma’s successor, Cuitlahuac. The images and text for the year 2 Flint address the brief rule of the doomed ruler. It follows a long section that details the death of

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<sup>518</sup> Sahagún, 1979 [1575-70]: vol. 2, bk. VIII, f. 4r.

<sup>519</sup> Chimalpahin, 132.

Moteuczoma. The excrement glyph above his head designates that the ruler is Cuitlahuac. He was a younger brother of Moteuczoma, a ruler of Itztapalapa before he came to power in Tenochtitlan. A text beside the seated ruler explains that his rule began during Ochpaniztli, the sweeping of the way festival. It also explains that he only held power for eighty days. His short-lived reign ended when he died from disease “while the Castilians were in Tlaxcala.”<sup>520</sup> The Aubin also features a small illustration of the forsaken ruler, bundled in his burial wrap, surrounded by pestilential bumps (fig. 16). The dots surround the entire outline of the bundled body, indicating pustules as the cause of death. This precise reference to the cause of death was unique. For example, the *Tira* commemorated Cuitlahuactzin’s short reign and death but did not refer to disease as the cause of death (fig. 15).

In the Codex Aubin, depictions of previous rulers' deaths do not indicate their cause of death. Death were marked simply by bundled bodies connected to name glyphs.<sup>521</sup> In the case of Cuitlahuac, perhaps the artist needed to explain why the leader ruled for such a short period. Or perhaps he needed to document a new phenomenon: death by pustules. The artist continued to record major epidemics in the same manner.

It is unclear why the authors of Book XII neglected to mention his short reign at all. It appears that most of the authors of this book were from Tlatelolco, not from Tenochtitlan, and therefore paid much more attention to the life and death of Itzquauhtzin, the ruler of Tlatelolco. Spaniards appear throwing the bodies of both rulers in the lake because they “had died.”<sup>522</sup> The authors recall the stench of Moteuczoma’s body as it burned, a fitting memory for his afflicted

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<sup>520</sup> Codex Aubin f. 43v.

<sup>521</sup> Codex Aubin fos. 29r, 31v, 32r, 33v, 37r.

<sup>522</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 40r.

reign. The lack of reference to the causes of death of the three rulers suggests some type of censorship. Perhaps the cause of their deaths, too easily blamed on the invaders, were simply too controversial to address in text. In any case, Cuitlahuac was another casualty of the war. In Book XII, Quauhtemoc emerges as the next leader who is forced to deal with the filthy Spaniards.

### **Defeating Dirt: The surrender of Quauhtemoc**

The Nahua authors clearly remembered the valorous resistance and eventual surrender of Quauhtemoc and numerous other heroic warriors. During the siege of Tenochtitlan, when people were suffering and starving, Quauhtemoc led many brave warriors in numerous counter attacks. In the end, their efforts were in vain. Finally, they met to decide how to submit to the Spaniards, how much tribute they should pay. When Cortés and other Spaniards approached the leaders, they passed many dead victims of disease and war; they held white cloths to their noses because “the dead made them sick, for they were smelling bad and stinking.”<sup>523</sup> The stench of the polluting war filled the air. The Nahua authors also recall the appearance of their leaders when they surrendered; they are covered with the filth of the invasion. Quauhtemoc's cloak of precious hummingbird feathers was now ragged and filthy. Likewise, the cloaks of other leaders were “dirtied, very dirty.”<sup>524</sup> The authors' attention to the leaders' appearance is symbolic. The stench and dirt that covers them represents both their defeat and the cause of their defeat. The stench and filth of the conquest had overwhelmed them.

### **Nahua Healing Authorities on Illness and Cures**

Nahuas consulted with Spanish secular and ecclesiastical authorities to fight off disease in the colonial period. Nahuas at time adapted Spanish practices, but they also continued to rely

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<sup>523</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 83v.

<sup>524</sup> Sahagún, 1979 [1575-70]: vol. 3, bk XII, f. 54v.

on their own healers and at times insisted on their own methods of healing. Some of the best evidence for a continued reliance on traditional cures comes from the contemporary ethnographic record, where practices recorded in the early colonial period can be seen in indigenous communities today.<sup>525</sup> The drafts of the FC represent another valuable source of information on this topic.

The previous discussion of the FC focused on the three texts of the final draft: the images, Spanish alphabetic text and Nahuatl alphabetic text.<sup>526</sup> The following section analyzes information on health and healing in six additional texts--the initial drafts of the Florentine Codex, called the *Primeros Memoriales* and the Tlatelolco Manuscript. Comparisons between the sections on disease in these "nine texts" reveal Sahagún's direct intervention in the first draft, which does not appear in later versions, suggesting the negotiations between Sahagún and the Nahuatl authors that contributed to the final product. My analysis refutes the assumption that Sahagún had the final say on matters addressed in the manuscript, and the idea that Europeans were the most trusted healers during the colonial period.

Changes in the section on illness in the three manuscripts raise questions about authorship, and the editorial process, and highlight the different priorities of their Spanish and Nahuatl authors.<sup>527</sup> My focus on descriptions of disease and remedies in the three manuscripts

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<sup>525</sup> Brad R. Huber, and Alan R Sandstrom. *Mesoamerican Healers*. Austin, TX: University of Texas Press, 2001; Megan Lemley and Lori A. Spies. "Traditional Beliefs and Practices among Mexican American Immigrants with Type II Diabetes: A Case Study." *Journal of the American Association of Nurse Practitioners* 27, no. 4 (April 2015): 185–89; Alfonso Julio Aparicio Mena. *Limpia en las etnomedicinas mesoamericanas*. Spain: EAE Editorial Academia, 2012.

<sup>526</sup> Kevin Terraciano. "Three texts in one: Book XII of the Florentine Codex." *Ethnohistory*. 2010, 57, no. 1. pgs 51-72. I consider images to be useful historical texts.

<sup>527</sup> This section considers the *Florentine Codex* manuscript a draft because the pages display edits such as corrections to chapter titles and numbers (for example see: Sahagún 1979: vol. 1, bk. II, f. 37v; bk VIII, f. 14v). I tallied at least 190 corrections such as words inserted with carats and other marginal notations in the last draft of the codex indicating its less than final nature.

suggests that the authors favored Nahua sources for information on healing. Since all three manuscripts were written in the second half of the sixteenth century, with the same goal of documenting Nahuatl beliefs and practices, the texts already reflect the dramatic changes that disease had wrought. The Nahua scholars wrote drafts and Sahagún commented on them. In this editorial process, the treatment of topics evolved from draft to draft. Thus, comparing the three drafts reveals how attitudes toward illness evolved during the editorial process. By tracing changes in specific sections related to illness, it becomes clear that Sahagún wrote comments in earlier versions that were not included in subsequent drafts. This pattern does not apply everywhere, however; Sahagún's comments on many other topics were dutifully incorporated in following iterations. This was not the case when it came to the discussion of how to treat illness, however, revealing the contested nature of this discourse between the Spaniard and his Nahua team.

The departure from accepting edits to rejecting them suggests that the Nahua scholars ascribed more importance to some themes than others. Apparently, they invested less interest in descriptions of the calendar or social types than in cures for illnesses that were destroying their communities. The Nahua scholars' reluctance to follow Sahagún's lead on the topic of sickness and remedies shows that the Nahua authors, many who had survived the devastating epidemics of the early colonial period, felt particularly strong about the topic. The process of editing indicates that they wanted to present and preserve the knowledge of their healers on treating disease. The fact that their views survived the editing process and made it into the final draft confirms their ability to negotiate on matters that they considered important to the health of their communities. The evolution of the illness section through the production and editing of the three drafts records exchanges between Sahagún and the Nahua scholars.



The Nahua scholars composed the first draft in Tepepolco, an altepetl northeast of Mexico City. From 1558 to 1561, the Nahua scholars consulted with a group of elders and recorded information found in the first draft.<sup>528</sup> They then gave the draft to Sahagún for review.<sup>529</sup> In his compilations of the texts, Francisco Paso y Troncoso selected the oldest folios from the Madrid Codices and titled them the *Primeros Memoriales*.<sup>530</sup> This source, which I call the first draft, is now accepted as an original, autonomous document.<sup>531</sup> It consists of four chapters on Nahua deities, the calendar, rulers, and the people. Artists painted color images with Nahuatl explanations. The section dedicated to bodily diseases and cures fills three pages or one and a half folios of the first draft.<sup>532</sup> On the left hand-side of each folio is a list of illnesses; symptoms and cures are noted on the right-hand side of the folio.

The Nahua authors enumerated the diseases that had devastated their communities during the colonial period. In their own language, they refer to seven ailments that involved raised

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<sup>528</sup> The folios of the *Primeros Memoriales* are held in the Madrid libraries of the Royal Palace Library and the Royal Academy of History but were joined in a reconstruction of their original form. Scholars pulled apart the first and second drafts from the entire body of folios known as the Madrid Codices.

<sup>529</sup> By 1558 Sahagún held the Nahuatl texts for Book VI and Book XII but less is known about that process. Glass explains that these drafts went missing but the evidence for their existence is found in the numerical sequences of the books of the Tlatelolco Manuscript and other sources (Glass 1978).

<sup>530</sup> Sahagún, 1905-1907.

<sup>531</sup> Sahagún, 1558-1561; 1964; 1993; 1997.

<sup>532</sup> Not included in this count is the anomalous fo. 81 that is placed after fo. 69 in the *Primeros Memoriales* publications that features text dealing with the same subject matter of illness and cures but in a different script and format (Sahagún 1997: 281-8, footnote 50; Sahagún 1997: 69r-69v) Paso y Troncoso placed the folio 81 directly after folio 69 because of topical similarity. Recently Miguel Ángel Ruz Barrio suggests that because the chapter ending with folio 80 contains text on the *recto* side but is blank of the *verso* side that Sahagún “reused the last folio of a section that was blank” (Ruz Barrio 1990: 292). Quiñones Keber notes that the difference in script and format indicates that the folio may have been erroneously placed, “the location of folio 81 at the end of the Academy manuscript, immediately preceding two blank folios (and not after folio 69 where Paso y Troncoso inserted it) suggests that the writing on this folio may have been added at a later time.” The space on folio 81 is completely dedicated to lists of diseases and their cures. The folio was written later and possibly served as a model for the final draft of the section on illness and cures (Sahagún 1993: f.81r-v; Sahagún 1997: 24, see Quiñones Keber “An Introduction to the Images, Artists, and Physical Features of the *Primeros Memoriales*”).

lesions on the skin.<sup>533</sup> The Nahuatl scholars described a disease they called *totomonaliztli* that was defined by Molina's *Vocabulario* as skin bumps or pustules.<sup>534</sup> They explained a sickness of pustules, or what a Spaniard would have called *ampoallas*--the skin lesions associated with smallpox.<sup>535</sup> The list included the illness *çauatliztli* (*çahuatl*) that Spaniards equated with *viruelas* or smallpox.<sup>536</sup> Although it is impossible to attribute the many colonial epidemics to a singular illness, the diseases which afflicted indigenous peoples in epidemic proportions during the colonial period were all considered pestilential or infectious.

The people of colonial Mexico suffered three severe epidemics, beginning in 1520 during the Spanish-led invasion of the city of Tenochtitlan. In Nahuatl accounts of the war, the Nahuatl authors described the great sickness of pustules as *totomonaliztli* and *çaoatl* (*çahuatl*).<sup>537</sup> In a Spanish note to the reader in the final draft, Sahagún explained that before the arrival of the Spaniards, the land was filled with people beyond counting, until "a great plague of smallpox [*pestilencia de viruelas*] struck them from which countless Indians died."<sup>538</sup> The second epidemic occurred in 1545, so that by the time the Nahuatl scholars had begun gathering information for the first draft, the elders whom they consulted had already survived two waves of epidemic disease. In reference to the second plague, Sahagún remembered that a "major portion

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<sup>533</sup> Prem, 1991, 23.

<sup>534</sup> Molina, 2008 [1571]: 150v [second numeration].

<sup>535</sup> Molina, 2008 [1571]: 10r [first numeration].

<sup>536</sup> *Ibid.*, 117v; Sahagún 1558-1561: 69r-69v.

<sup>537</sup> Sahagún, 1979 [1575-1579]: vol. 3, bk. XII, f. 53r.

<sup>538</sup> Sahagún, 1979 [1575-1579]: vol. 3, bk. XI, f. 248v.

of the people living in all this New Spain died...I buried more than ten thousand bodies.”<sup>539</sup> It was during this second plague, that Sahagún himself fell so ill that he nearly died.

Thirty-one years later, in 1576, another major outbreak devastated the city. In fact, Sahagún confirmed in 1579 that some of the Nahuas who were working on the final draft of the FC had died from smallpox. He lamented that by the end of the *Florentine Codex* project "there [was] hardly anyone still in the college, dead and sick, almost all are gone.”<sup>540</sup> Since Sahagún and the Nahua scholars were painfully aware of the danger of epidemic diseases during the creation of each of the drafts, they understood the importance of identifying diseases and potential cures when writing each draft. The first draft suggests differences of opinion on the topic.

### **Sahagún's Editorial Changes to the Illness Section**

Sahagún's judgment of the best method to handle the topic of illness reveals his perspective as a missionary and caretaker. His handwritten note in the conclusion of the section on diseases and their cures makes this clear. The note, and thus the editorial voice of the friar, consists of two phrases in Nahuatl, followed by his own Spanish translation (fig. 17)..<sup>541</sup> First he wrote *quimopachivya* translating this as *ap[ro]vechale esta medicina*, “this remedy is efficacious.”<sup>542</sup> Below the first he wrote *Amo qujmpachivia* which he translated into Spanish as *no le ap[ro]vecha esta medicina*--“this remedy is not efficacious.”<sup>543</sup> His accurate translation of

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<sup>539</sup> Sahagún, 1979 [1575-1579]: vol. 3, bk. XI, f. 238v.

<sup>540</sup> Sahagún, 1979 [1575-1579]: vol. 3, bk. X, f. 83r.

<sup>541</sup> Sahagún, 1558-1561: f. 69v; Sullivan et. al. 1997: 288, footnote 49.

<sup>542</sup> Sahagún, 1558-1561: f. 69v.

<sup>543</sup> Sahagún, 1558-1561: f. 69v.

Nahuatl phrases suggests that he envisioned the section as a guide for friars who might not read Nahuatl. Sahagún hoped to create a guide that would allow friars to determine the validity of Nahua remedies. He did not pose the phrases in the form of a question, because he did not intend them as such. Perhaps he hoped that friars would use the phrases to identify what he viewed as idolatrous healing practices.

The text suggests that his intended audience was other Franciscan friars because he provided his own translation of the Nahuatl, which he did not do anywhere else in the first draft. It is possible that Sahagún wanted to change the disease section from a listing of diseases and cures to a menu of potential remedies, considering each remedy according to its demonstrated effectiveness. Perhaps he wanted to further equip them with the vocabulary to judge effective and ineffective remedies.<sup>544</sup> By translating the phrases, Sahagún may have hoped to involve Spaniards in the discourse.<sup>545</sup> He might have intended the phrases to serve as tools for interviewing healers in different locales, but if Sahagún had trusted the illnesses and remedies as they were written, he would not have added the note. He bemoaned the fact that friars were often the only caregivers who remained to look after the suffering indigenous population.<sup>546</sup> He wanted to enable his readers, Spanish friars, to gather information on effective medicines in order to aid the sick.

### **Observable Edits the Year-Count Calendar and People Sections**

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<sup>544</sup> In explanations of the final draft, Sahagún wrote that he wanted to “to know and record all the vocabulary of each thing and all the modes of expressing each sentence. And this is not only in this Book but in the whole work” (Sahagún 1979 [1575-1579]: vol. 2, bk. I, f. 0 prologue). Sahagún laid the groundwork to create a type of dictionary “a work for those who desire to learn this Mexican language” (Ibid). He hoped that his fellow Franciscans could use the codex as a demonstrative dictionary in order to better access the terms and concepts of the Nahuatl-speaking populace.

<sup>545</sup> In writing the note, Sahagún might have also been demanding that the Nahua scholars clearly label the remedies supplied by the elders as effective or not. This request also revealed his distrust of the Nahua medicine.

<sup>546</sup> Sahagún, 1979 [1575-1579]: vol. 3, bk. XI, fs. 239r-240r.

Sahagún wrote and dated editorial comments on three sections of the first draft.<sup>547</sup> The first comment was in the illness section, the second appears in the year-count calendar section, and the third is in response to descriptions of people. His notes reveal how he participated in the editing process in the early stages of the manuscript's production. The Nahuatl scholars reviewed Sahagún's notes when writing subsequent drafts. In the case of the year-count calendar section, Sahagún demanded a clearer explanation of how and when the count cycle ended and renewed. In the section on people, he annotated the information on different societal roles to include those whom he considered wicked. The Nahuatl scholars followed his edits in the people section and added further explanatory written texts.

Sahagún did not add translated phrases to the people section, but he did add vocabulary on different social roles. The section lists common duties of men and women and describes their benign progress from infancy to old age. Sahagún's editorial note, written completely in Nahuatl, appears in the last half dozen lines of the paragraph on the right-hand side (fig. 18). In his shaky script, he wrote "Wicked Youth: He makes fun of people, he knocks people down." Then he listed the "Sodomite, Practitioner of Sodomy, Lesbian, Pimp or Madam."<sup>548</sup> By writing on the first draft, Sahagún hoped to establish clear contrasts between good and evil behaviors in subsequent versions. The strict dichotomy between good and evil represented Christian categories more than Nahuatl understandings of human behavior. Burkhart explains that "good and evil for the Nahuatl were not absolute forces. Nahuatl had no way of referring to evil except by saying something was 'not good.'<sup>549</sup> Despite a potential reluctance to categorize behaviors in

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<sup>547</sup> Sahagún, 1558-1561: fs. 69v, 82r, and 283r.

<sup>548</sup> Sahagún, 1558-1561: f. 82r.

<sup>549</sup> Burkhart, 2011: 17; 1989: 34-39.

a binary system, the Nahuas followed Sahagún's changes and dedicated many folios to delineating good from evil behaviors in later drafts.<sup>550</sup> Such binary oppositions appear in the book dedicated to social types in the final draft, titled "Virtues and Vices of the People."<sup>551</sup> Sahagún successfully proposed finite definitions of good and bad behavior, which appear in subsequent drafts. The Nahuas added explanatory text to the people section, and they introduced even more changes to the year-count calendar section.

To meet Sahagún's demands, the Nahuas added labeled pictorial texts to the year-count calendar section. By utilizing pictorial texts in following versions of the calendar section, the Nahuas come closer to explaining their year-count system to a Spanish audience. In the first draft, the Nahuas originally depicted the year-count calendar with no indication of how the count continued after the end of a cycle. The calendar appears as sequential year signs drawn vertically on the right labeled with blue discs indicating the year number (fig. 19). The year sign *ome acatl*, "Two Reed" appears above the following year sign called *eyi tecpatl*, "Three Flint Knife." Black text flanks the year sign for *eyi tecpatl*, "Three Flint Knife" on both sides (fig. 20). The shaky handwriting again reveals that Sahagún wrote the black text. He added, "This year, 1560, ended the fifty-two years with this sign called two reed and the next fifty-two years begin with the sign called Three Flint Knife."<sup>552</sup> Sahagún's note draws attention to the cyclical nature of the year-count calendar and the date of his writing. He wrote in 1560, during

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<sup>550</sup> Sahagún, 1561-1566: f.82r.

<sup>551</sup> Sahagún, 1979 [1575-1579]: bk. X, f. 1r.

<sup>552</sup> Sahagún, 1558-1561: f. 283r.

the period from 1558 to 1561 when Nahuatl scholars produced the first draft.<sup>553</sup> The timing of the notes, written before the second draft, dates the negotiation of content to the time between the first and second draft.

Thus, Sahagún's calendar note shows that he intervened quite early to edit the content of the first draft. The Nahuatl scholars were then faced with the decision of how to address the edits in the next draft. They wrote the second draft from 1561 to 1565 or 1566 after moving to Tlatelolco, so it is commonly known as the Tlatelolco Manuscript.<sup>554</sup> Following the same protocol as the first draft, the Nahuatl scholars again sat with a group of local elders to record their knowledge.<sup>555</sup> They experimented with page format, so that scholars have named distinct parts of the Tlatelolco Manuscript according to their structure.<sup>556</sup> Here I refer to the whole manuscript as the second draft, acknowledging its place in the long process that culminated with the *Florentine*

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<sup>553</sup> Another note, written in Nahuatl and Spanish by a hand other than Sahagún's confirms that the notes on the content were written in 1560. Presumably a Nahuatl scholar wrote next to the divinatory almanac sign of Nine Wind that "Today, Nine Wind, is on Wednesday the 25th of September, 1560" see Sahagún, 1558-1561: f. 289r.

<sup>554</sup> Sahagún, 1561-1566; Dibble 1999, The Tlatelolco Manuscript consists of the folios of the Madrid Codices that remained once the folios designated as the first draft were removed. These manuscripts have a dizzying array of titles that will be explored only briefly in the following endnotes [see Glass 1978 for more information]. Although this chapter refers to the Tlatelolco Manuscript as a second draft for the sake of simplicity, the manuscript is found alongside the first draft or the *Primeros Memoriales* in the Madrid libraries of the Royal Palace Library and the Royal Academy of History under the umbrella term of the *Códices Matritenses* or Madrid Codices, see Cline and d'Olwer 1973: 190.

<sup>555</sup> Although the second draft has many different sections, Luis Nicolau D'Olwer and Howard F. Cline conclude that all the various texts created in Tlatelolco comprise the Tlatelolco Manuscript (1973: 191).

<sup>556</sup> Francisco del Paso y Troncoso broke down the second draft, the Tlatelolco Manuscript, further by identifying three different sections (Sahagún 1905-1907). He named the sections after their format. The first he titled *Segundos Memoriales* (ca. 1561-1562), the second the *Memoriales en tres columnas* (ca. 1563-1565), and the final section he called *Memoriales con escolios* (ca. 1565). The *Memoriales en tres columnas* is also known as *Segundo manuscrito de Tlatelolco*. The *Memoriales con escolios* are a revised copy of the *Memoriales en tres columnas*. The *Segundos Memoriales* is also known as *Primer manuscrito de Tlatelolco* or *Memoriales Comeplementarios*. The text titled *Memoriales en Castellano/Español* refers to the Spanish translations of Books I and V created from 1569-71 (Cline and D'Olwer 1973).

*Codex*.<sup>557</sup> Whereas the first draft contained no clear visual depiction of the renewal of the year-count, the second draft includes an image of the cycle.

In the second draft, the authors responded to Sahagún's comments and marked the end of one calendar count and the beginning of another. This draft presents an image of a round calendar cycle (fig. 21). The illustration is one of only two images in the second draft.<sup>558</sup> The text inside the image clearly marks the *toxiuhmolpilia*, “the binding of the years.” The binding of the years is marked with several ceremonies where one year-count cycle ended and another began. In the second rendition, the year signs appear around a calendar wheel divided into four quadrants. The year-sign *acatl*, “reed” appears in the top-right quadrant and the year sign *tecpatl*, “flint knife” appears in the upper-left quadrant. The authors placed Arabic numerals in each circle section to indicate a continuum through the fifty-two-year cycle. In the center a small hand points to the number 2 in the *acatl*, “reed” quadrant. The text next to the hand, in a combination of Nahuatl- and Spanish, reads: *toximmolpilia .52 aos*, or “the binding of the the 52 years.”<sup>559</sup> The text refers to the binding of the years that occurred every fifty-two years to mark the end of the Nahuatl year-count cycle. The second draft also dedicated twelve folios of text to explaining Nahuatl astrology and the year-count renewal ceremonies.<sup>560</sup> In contrast to the first draft, the

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<sup>557</sup> Ruz Barrio, Miguel Angel. “Los Códices Matritenses de fray Bernardino de Sahagún: estudio codicológico del manuscrito de la Real Academia de la Historia.” *Revista Española de Antropología Americana* 40, no. 02: 189–228.

<sup>558</sup> Sahagún, 1561-1566: fo. 189r, the other image depicts the day-signs of the divinatory almanac.

<sup>559</sup> Sahagún, 1561-1566: 189r, the spelling is slightly different than the previously defined *toxiuhmolpilia* but the intent is the same.

<sup>560</sup> In the second draft, there are two astrology sections but only one contains the year-count image. The first version covers the sun through the rainbow and is structured in three columns. The central column is the Nahuatl text, on the left it is flanked by a brief Spanish translation, and the right-hand side features the Nahuatl terms explained in Nahuatl and the verbs conjugated and then briefly translated into Spanish. The calendar image follows this first version (Sahagún 1561-1566: fo. 178-189r). The second version of the astrology section appears fifteen blank folios earlier and is structured differently. The second version of the astrology section is twenty folios with a Spanish translation on the right, the Nahuatl information in the center, and the explanation of Nahuatl vocabulary on the left. The explanation of certain Nahuatl words follows a numbered scheme Sahagún calls *escolios*. The Nahuatl text of



Nahuatl text of the second draft contains an in-depth explanation of the end of a year cycle and the beginning of another.<sup>561</sup> The Nahua scholars employed images and text to depict the ending of one year-count and the beginning of another. The final draft of the calendar image in the *Florentine Codex* was also depicted as a cycle around a wheel.

The final draft, written from 1575 to 1579 in Mexico City, incorporates elements from the first and second drafts.<sup>562</sup> By portraying the calendar as a wheel the Nahua authors clearly communicated the cyclical nature of their calendar (fig. 22). Although it is impossible to discount European models such as the zodiac completely, Eduardo Natalino dos Santos proposes that the authors reproduced "documents with the presence of calendar elements to didactically represent the basic cycles of the calendar."<sup>563</sup> The changes between each of the calendar wheel images suggest different levels of comfort between the Nahua elders and the Nahua scholars about documenting their ceremonies. As much as they wanted to record their cultural practices, Nahua elders were wary of colonial inquiries about their traditions. The New Fire ceremony occurred at the termination of the 365-day solar year calendar and the 260-day ritual calendar cycle.<sup>564</sup> During the ceremony, all the inhabitants extinguished their fires, broke pottery and

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this section appears in the final draft of the *Florentine Codex*. The second version contains a mythic explanation of the rising of the sun in Nahuatl that is found translated into Spanish in the *Florentine Codex* but without any images (Sahagún 1561-1566:160-170r; Sahagún 1979: vol. II, bk. VII, fos. 31-81).

<sup>561</sup> Sahagún, 1561-1566: fs. 184-189r

<sup>562</sup> Sahagún, 1979 [1575-1579]: vol. II, bk. VII, f. 21v, This is also the only third and final draft of the FC that survives today.

<sup>563</sup> Eduardo Natalino dos Santos, "El calendario, la cosmografía y la cosmogonía en los códices y textos nahuas" in *Tiempo, espacio y pasado en Mesoamérica*. Marisa Montrucchio trans. México D. F.: UNAM, Instituto de Investigaciones Históricas, Serie Culturas Mesoamericanas 7, 2014, 187-88.

<sup>564</sup> Deborah L. Nichols, Enrique Rodríguez-Alegría, and Anthony F. Aveni. "The Measure, Meaning, and Transformation of Aztec Time and Calendars." *The Oxford Handbook of the Aztecs*. Oxford University Press, 2017; Eduardo Matos Moctezuma and Felipe R Solís Olguín. *The Aztec Calendar and Other Solar Monuments*. México, D.F.: Conaculta-Instituto Nacional de Antropología e Historia: Grupo Azabache, 2004.

sacred images, and then swept their homes clear of old filth. Nahua priests drilled a new fire and distributed it to signal the beginning of the cycle. Visual depictions of the New Fire ceremony suggest that it was associated with heresy; a devil appears amid the broken crockery that represented the indigenous idols (fig. 23).<sup>565</sup> In fact, this image appears on the page before the image of the calendar wheel suggesting a close connection between what the Nahua scholars may have viewed as the heresy of their elders and the calendar. However, the Nahua elders might have identified with the image for a different reason. The disorder and filth of broken pottery represented polluting filth to the Nahua elders. They might have witnessed church authorities burning their sacred texts. When questioned on their culture, Nahua elders sometimes resorted to obfuscation to protect their culture. The imprecise format of the calendar in the first draft may be a result of their desire to guard calendrical information, and thus to conceal the ceremonies that occurred at the renewal of the cycle from colonial authorities.

Sahagún struggled to get straightforward answers from the Nahua elders about the calendar as was clear in his notes. He described the process to determine the end and beginning of the year cycle in a Spanish note opposite the calendar wheel image. He wrote that he found many discrepancies in consulting people about the topic, remarking that he “gathered many elders, the most skilled [he] could, and together with the ablest of the [Nahua scholars], they debated this topic for many days.”<sup>566</sup> It is possible that the Nahua elders simply were not experts in the calendar, or that people in different places understood the calendar differently. However, it is also possible that the Nahua elders and scholars were not willing to reveal all their sacred knowledge to a European audience. Friars were obsessed with identifying heretical images in this

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<sup>565</sup> Sahagún, 1979 [1575-1579] vol. II, bk. VII, fo. 21r.

<sup>566</sup> Sahagún, 1979 [1575-1579] vol. II, bk. VII, fo. 22r, Sahagún refers the Nahua scholars as the *colegiales*.

period. Sahagún shamed those who dismissed the significance of the day-sign rotation found in the divinatory almanac and the partner cycle of the year-count. In the text of the final draft he rebuked his colleagues who viewed these two simultaneous counts as harmless.<sup>567</sup> Sahagún intended to provide the images to alert his fellow friars about their dangerous nature and to destroy any indigenous texts that contained them. In the appendices to Book IV of the final draft, Sahagún explained that “The Indians know very well the secrets of these wheels and the calendar but they do not teach it.”<sup>568</sup> Such a statement reveals the reluctance that Sahagún and his team encountered when they inquired about the calendar and the divinatory almanac. In explaining the purpose of recording the year-count calendar and the day-signs, the text declares that “wherever one may see it, he may know that it is something very pernicious to our holy Catholic Faith; and may it be destroyed and burned.”<sup>569</sup>

In his explanation of the images of the year-count calendar, Anthony Aveni reproduced Sahagún’s refutation of a fellow friar’s representation of the calendar, explaining it as an example of “how these early chroniclers quibbled over the conceptualization of the native calendar.”<sup>570</sup> Instead of viewing such disagreements as European intellectual history, I argue that the inconsistencies also reveal the reluctance of some Nahuas to reveal important information to a hostile colonial audience. The changes from draft to draft followed Sahagún’s suggestions but the three images convey different interpretations of the calendar and divinatory almanac,

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<sup>567</sup> Sahagún, 1979 [1575-1579] vol. I, bk. IV, fo. 77r-v.

<sup>568</sup> Sahagún, 1979 [1575-1579] vol. I, bk. IV, fo. 78r.

<sup>569</sup> Sahagún, 1979 [1575-1579] vol. II, bk. VII, fo. 77r.

<sup>570</sup> Aveni, 2012, 46.

confirming the variety of people contributing to the texts. The Nahuatl scholars participated in the illness section and clearly asserted their indigenous sources.

### **Mexica Healers in the Florentine Codex**

Instead of following Sahagún's directives about the illness section, the Nahuatl authors turned to the expertise of their own community authorities. Unlike their acceptance of Sahagún's notes on the calendar and people sections, they rejected Sahagún's edits when they re-wrote the illness section. They did not include Sahagún's suggested Nahuatl phrases that would have helped friars to make decisions about effective remedies. The following exploration of the second and final drafts reveals a shift in authority in the illness section.

The disease section in the second draft of the project attributed the content to indigenous doctors. Sahagún's direct intervention in the content of the section on illness and cures appeared only in the first draft, whereas the following drafts adopted an entirely new set of authorities as guides. To ignore the suggestions of a friar and rely on the authority of Nahuatl practitioners appears to be a subversive act in the colonial context. The Nahuatl scholars most likely insisted clearly and firmly on the expertise of indigenous doctors because it is what survived the editorial process and appears in the final version of the FC.<sup>571</sup>

The second draft, ignoring Sahagún's suggestions, maintains the original format of a list of diseases and their cures. The second draft disease section comprises one central column of

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<sup>571</sup> It is also a possibility that upon moving back to Tlatelolco in 1566, Sahagún hoped to emulate an herbal written in 1552 by a Nahuatl doctor associated with the College of Santa Cruz. Martín de la Cruz, a Nahuatl healer wrote the herbal, now known as the *Codex Cruz-Badiano* that was then translated into Latin by Juan Badiano. The illness-related content of the *Cruz-Badiano* varies greatly from the second draft. Nor were the two indigenous men who worked on the *Cruz-Badiano* cited in the drafts of the *Florentine Codex*. However, it is possible that the herbal served as a model for the complete revision of the illness section of the second and final drafts (Cruz and Badiano 2000 [1552]).

Nahuatl text that covers a total of nineteen folios.<sup>572</sup> The edits in the remaining folios consist of entire sections that are crossed out (fig. 24). Nonetheless, these crossed out sections in the central column still appear in the final draft.<sup>573</sup> Perhaps because these edits are not accompanied by a note from Sahagún, they were ignored when creating the final draft.

The second draft of the illness section is similar to the first in content, but in format leaves room on the page for additional text. There are several Nahuatl annotations written in the right- and left-hand columns. Thirteen Nahuatl annotations appear in the columns flanking the central columns of text that do not appear in the final draft. All of the diseases listed on the verso side of folio 81 are found in the first chapter on illness in the *Florentine Codex*, with more extensive descriptions of cures.<sup>574</sup> Chapter twenty-eight of Book IV of the second draft contains five paragraphs on ailments of the body and the medicines suitable for their cure. The illnesses found in the first draft are also found in the second draft.

In contrast to the end of the same section in the first draft, this second version on illnesses does not end with Sahagún's phrases. Instead it names eight indigenous doctors as the sources. The Nahuatl explanation reads: "They who corrected this medical document, all of whom are Mexica," referring by names to eight men who were consulted for the information found in the chapter, Juan Pérez, Pedro Pérez, Pedro Hernández, José Hernández, Miguel Garcíá, Francisco de la Cruz, Baltasar Juárez, and Antonio Martínez.<sup>575</sup> The text explained that the men were Mexica, meaning that they spoke Nahuatl and were born and raised in central Mexico (fig. 25).

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<sup>572</sup> Sahagún, 1561-1566: f. 169r-172v.

<sup>573</sup> Sahagún, 1561-1566: f. 167v; 1979 [1575-1579]: vol. 3, bk. X, f. 106.

<sup>574</sup> Sahagún, 1558-1561: fs. 69r-69v; 1979 [1575-1579]: vol. 3, bk. X, fs. 97r-113v.

<sup>575</sup> Sahagún, 1561-1566: fs. 172r-172v.

The Nahua scholars clearly communicated to their audience the identities of the Mexica men by placing their names in the Spanish column of the final draft. It stated the same healers' names from the second draft, but the Nahua scholars chose to place the names elsewhere to make room for illustrations. The introduction to the healers' names also changes from the original manuscript version in Nahuatl to an explanation in Spanish in the final version. In their final copy, the Nahua scholars chose to make the identities of the doctors even more transparent to a Spanish-speaking audience by writing the explanation in Spanish (fig. 26). They wrote at the end of the chapter on disease that "The above was examined [by] the Mexican physicians."<sup>576</sup> These Mexican physicians were steeped in Nahua concepts of health and illness. The Nahua authors of the Florentine Codex trusted these healers to treat the diseases that the Spaniards had brought to Mexico.

## **Conclusion**

Indigenous doctors of the sixteenth century and present-day Mexico recognize fright and filth as causes of disease. Nahuas conflated physical and emotional causes of disease. The fright and filth that Spaniards brought to Mexico affected everyone--leader and commoner, men and women, young and old--in Tenochtitlan. The natural and supernatural causes of illness were intertwined. Nahuas applied ideas about filth and stench as physical and moral maladies to the Spaniards. The Florentine Codex provides three sets of texts that reveal Nahua perspectives on the causes of illness during the conquest. Differences between the original Nahuatl and the Spanish translation highlight the different priorities for Nahua and European audiences.

Nahuas relied on their cultural models of health and sickness to understand the first major epidemic and conquest of 1520-21. By examining non-western concepts of disease, my

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<sup>576</sup> Sahagún, 1979 [1575-1579]: vol. 3, bk. X, f. 113v.

research shows how the Nahuas themselves understood the epidemics. Moteuczoma and the people of Tenochtitlan suffered from fright or *susto*, an affliction that Europeans interpreted simply as fear or cowardice. Indigenous writers attributed illness and epidemics to the polluting nature and acts of the Spaniards. They thought of disease and conquest as one and the same. Clearly, disease decimated the Mexico and debilitated its warriors. The Spanish translation of the FC does not acknowledge this fact because it was designed to appeal to a Spanish audience. Nahuas articulated their understanding of the causes of disease in their own language, relying on specific vocabulary and the iconographic conventions of a pictorial writing system. Visual evidence associates the first outbreak of epidemic disease and the fall of Tenochtitlan. Visual and alphabetic texts created during the sixteenth century did not fail to depict and describe epidemics.

Different definitions of the general term for illness, *cocoliztli*, exemplify different interpretations of disease that are not found in the Spanish translation of the FC. The Nahua possessed specific disease-related terminology to describe the malicious effects of fear and filth on parts of the body. The Nahua authors of the FC repeatedly referred to the head, heart, and breath of those who interacted with the Spaniards. These parts of the body were endowed with unique qualities and functions that determined one's health. Detailed descriptions of the negative impact of Spanish actions on these body parts had larger implications for the health of all Nahua people who came into contact with those Spaniards. Nahuas remembered these ill effects even before the Spaniards reached Tenochtitlan, and before the onset of the first epidemic. The series of polluting actions and harmful emotional states that preceded the epidemic must be examined from a Nahua point of view. The Nahua made little distinction between physical and emotional ailments. Anguish and fear ought to be considered serious threats to the health of leaders and the

people of the altepetl whom they were obligated to protect. References to suffering throughout the first section of the FC reveal how the Nahuatl authors interpreted the signs and symptoms that lead to disease and loss. The authors' focus on the health of the leaders of Tenochtitlan illustrates the connection between the leaders' health and the health of the common people. The authors of the FC used language and images to communicate ideas about disease that were distinct from Spanish interpretations.

The FC, of course, is only one draft of a more extensive project. The final section of this chapter examines how two previous drafts show how important the topic of illness and healing was for the Nahuatl authors. In examining the three drafts of the *Florentine Codex* side-by-side and acknowledging that there are nine separate texts, the nature of Sahagún's interventions are clear. The changes made to every successive version of the calendar section shed light on the different hands and voices at work within each of the drafts. Several scholars have worked to identify the different hands at work within the images of the three drafts.<sup>577</sup> Few scholars have focused on the editorial decisions made by the Nahuatl scholars and Sahagún in the earlier versions of the manuscript. Sahagún's directives were followed in his first two content notes; the third note, however, received a different treatment.

The three drafts of the *Florentine Codex* show how Nahuatl scholars weighed the value of indigenous knowledge against the editorial recommendations of Sahagún. Only by separately analyzing the three texts-- the images, the Nahuatl text, and the Spanish translation--are differences among the texts visible. The nine texts reflect a wealth of authorship. Two groups of indigenous elders from central Mexico shared their knowledge with Nahuatl scholars. The voices of these indigenous people who had survived at least two devastating epidemics were

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<sup>577</sup> Magaloni Kerpel, 2014; Lockhart, 1993; Glass, 1978; Cline, et. al. 1973.



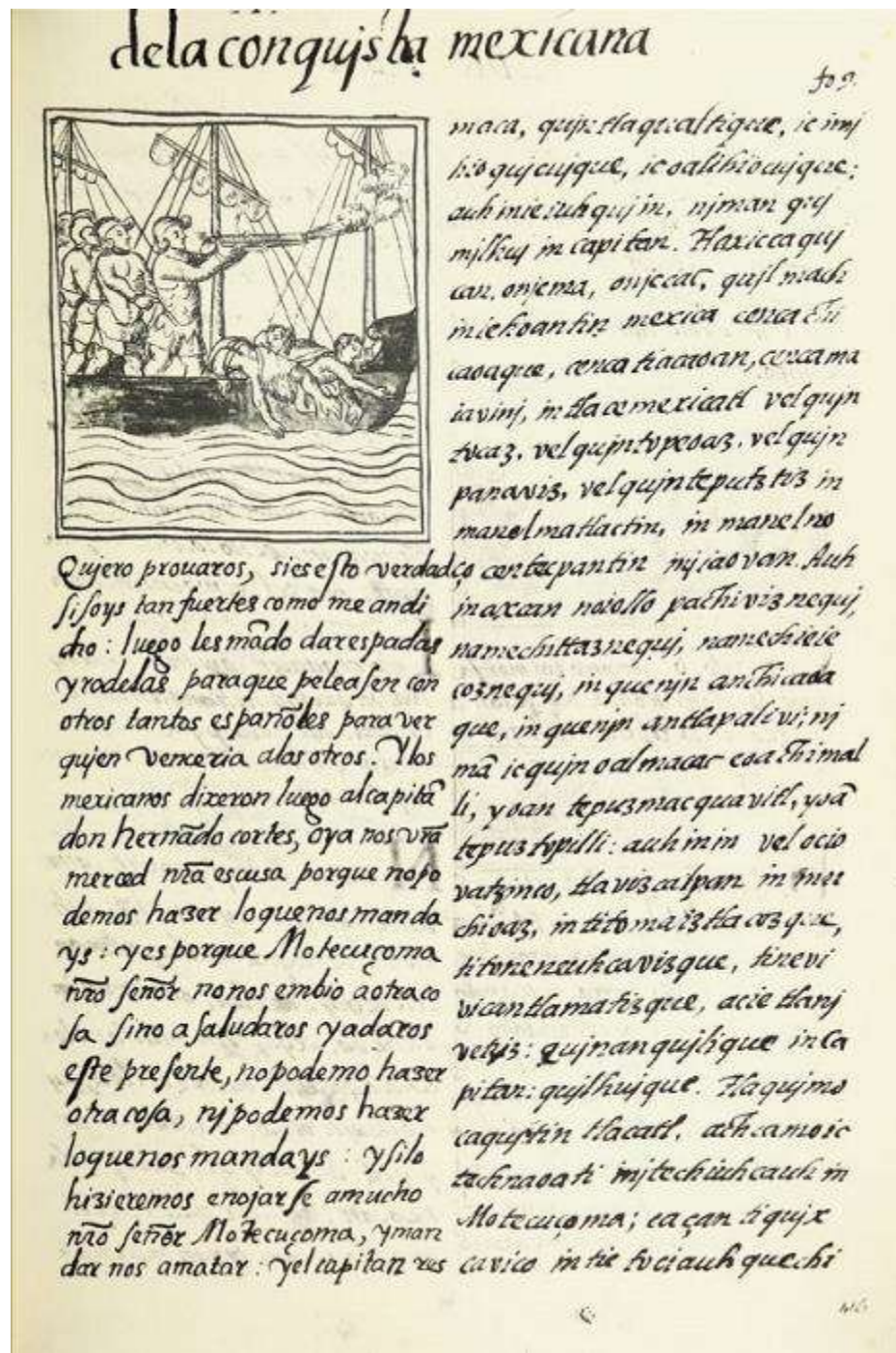
particularly strong on the topic of illness. They were motivated to record all knowledge on treating pestilential illnesses.

Early in the creation of the first draft, Sahagún intervened in sections dedicated to the calendar, the people, and illnesses and cures. There are many other sections in the first draft, but he intervened only in these three places. Sahagún appended his personal interpretation by providing terminology that would be useful to his missionary audience. The Nahuatl scholars followed the first two directives and changed the content in subsequent drafts. The notes show that Sahagún wrote comments on content in 1560. Sahagún's editorial notes on people and the calendar note clearly altered the content of the following drafts. In the sections where he requested further information, the next drafts supplied that information.

Sahagún's third note on the illnesses and cures section suggests an attempt to reorganize the content in order to assist other friars in treating disease. He sought to gloss Nahuatl phrases with Spanish translations so that friars might possess a script to interview Nahuas about illness and cures. However, the Nahuatl scholars did not follow his directive. Instead, they consulted eight Nahuatl doctors who provided knowledge on the types of ailments that they had encountered. The Nahuatl authors supplied the names of these healers in the section's conclusion. They sidestepped Sahagún's comments and, instead, introduced indigenous knowledge on illnesses and cures. The Nahuatl authors were clearly invested in preserving information from the Nahuatl healers. The editorial process, as evident in the written and pictorial texts of the three drafts, favors indigenous expertise over Spanish authority. Such a conclusion can only be reached through a comparative analysis of the three drafts.

These conclusions can be reached only by reading the Nahuatl texts in the three drafts of the FC. The FC offers one of the only narratives of the history of the conquest written by Nahuatl.

It also contains information about two major epidemics that followed the invasion. The people living in colonial Mexico experienced three bouts of devastating disease, the first from 1520 to 1521, the second from 1545 to 1548, and the last from 1576 to 1580. Disease continued to define the colonial period for indigenous people. It affected everything from settlement patterns to labor arrangements. Nahua authors and painters continued to represent disease as a phenomenon that defined the colonial period. Nahuas who paused to reflect on “ancient times” testified to Spanish authorities that they had lived much better before the arrival of Spaniards, before the age of deadly diseases. Chapter four of this dissertation brings the examination of indigenous responses to disease beyond the initial conquest period, beyond the Florentine Codex. For this I will examine a range of sources from the late sixteenth century and the beginning of the 17th century.





## Libro duodécimo

esta su suoracion parecia que se leua  
 tan en agua de chilli, yansi tenja  
 gra tormento: y dezia ofendor a  
 donde yre? como es apare lle  
 gando los mensajeros adonde esta  
 ua la guarda de Motecucoma dixen  
 rarlos: aunque duerma nro señor  
 Motecucoma desportade y de zilde  
 que somos venido de la ribera de  
 la mar dondenos embio: luego los  
 de la guarda ledixero aquello y  
 el responcho no qujero oyr aqui las  
 nuuias que traen alla qujeroyr  
 ala sala alla me hablara vayanse  
 alla: y luego mando que vntasen  
 o greda todo el cuerpo aciertos cap  
 tivos para sacrificar los: los mensa  
 jeros fueron se ala sala: y tambi  
 en Motecucoma se fue alla, yalli  
 delante los mensajeros mataron  
 los captivos, y rociaron a los mensa  
 jeros con la sangre de los captivos: hi  
 zieron esta cerimonia: porque auj  
 an visto grandes cosas: yaujan visto  
 a los dios, y hablado con ellos.

quj matia; ipampain qujtracia  
 zlem ichipan muchioas, acme  
 liac, ha icppa nethcath. vel  
 patzmiqej in niallo. iuh quj  
 ma chila tequjlo. vel tona de  
 chinaa ampa nel totecuc.  
 Niman qujmo naocaticue in  
 quj pia in izonellan thipia quj  
 mo nistacique in la motochitia  
 xicmestecuilcan cao vallaque  
 in tequjn motestlanj astitit: Auh  
 ino consilicito: niman qujvali  
 to. Amojcane njecaqujs. vni  
 pa njecaqujs in coacalte. moan  
 pavian, yoan oallanacate quj  
 valito: ma on te tiqua viso in ma  
 malti. Auh niman vmpaia  
 que in coacalte in thilanti: no  
 ic loati in motecucamatrn. ni  
 ma ier ic in xpan njcoa qujmel  
 te tequj in ma malti, nijmes  
 is ic qujmonatzel hujara in ti  
 thanti Cipampa in juh qujchiuh  
 que in, cacerca ovican inovia  
 cao quj mjtato, in jero in jpac  
 oia chiatv, vel o quj nalsque  
 in tateu.



Fig. 3 Sahagún 1979 [1575-70]: vol. 3, bk XII, f. 22v, ©Biblioteca Medicea Laurenziana

*Libro duodecimo*



*hēvīte, mje vmpantēvī  
 te avallōs temama hēvīte, i  
 mjīchī axīpīl, ime cōa chimāl  
 mētepepōtēpīl, yōan in tēte  
 puznaquātū in quēz pē pīpīl  
 catīvīl in cavallōs me, cōcōiōl  
 loqē, cōiōloqē, cōiōlōtēvīte  
 tūh quī xā zamaca in cavallī,  
 tēzā macān cōiōllī in cavallōs  
 tē, in mamān pīpīlōca, tē  
 pīpīlōca, cōca mī tōrīa, tūh  
 quī dīl in tēpīlōca tēvī: aut  
 mī in tēpīlōca quīllō tēvī  
 paca tēspan, tūh quī: a  
 mēllī tēvīpānī; aut mī  
 nōxīnī cōca tēvī tēvīpānī, tē  
 tēvīpānī: tēvī cōmōtē, tūh  
 quī tēvī tēvī, nīman cōcō  
 iōnī, cōcōmōtēvī in tēvī in vī  
 cōn quīquē tēvī mīcī xī yīvā  
 mamā māvā in vīcōn quī  
 quēquē tēvī mī mīcī, in mī  
 mā. In quēquē tēvī tēvīpānī  
 vī tēvīpānī, tēvī tēvī tēvīpānī  
 in mīcōn tēvī in tēvī tēvī  
 tēvī, tēvī tēvī tēvī, tēvī tēvī  
 cō tēvī, quī xā tēvī tēvī  
 tēvī in cōquī tēvī quīquē tēvī  
 tēvī, quī quēquē tēvī tēvī*

Detail of Middle Image:



Fig. 4, Basic Water Glyph, see also Boone 2000: 34

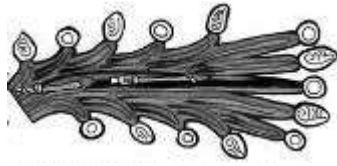




Fig. 5 Sahagún 1979 [1575-70]: vol. 3, bk XII, f. 23r, ©Biblioteca Medicea Laurenziana



Detail of Bottom Image:



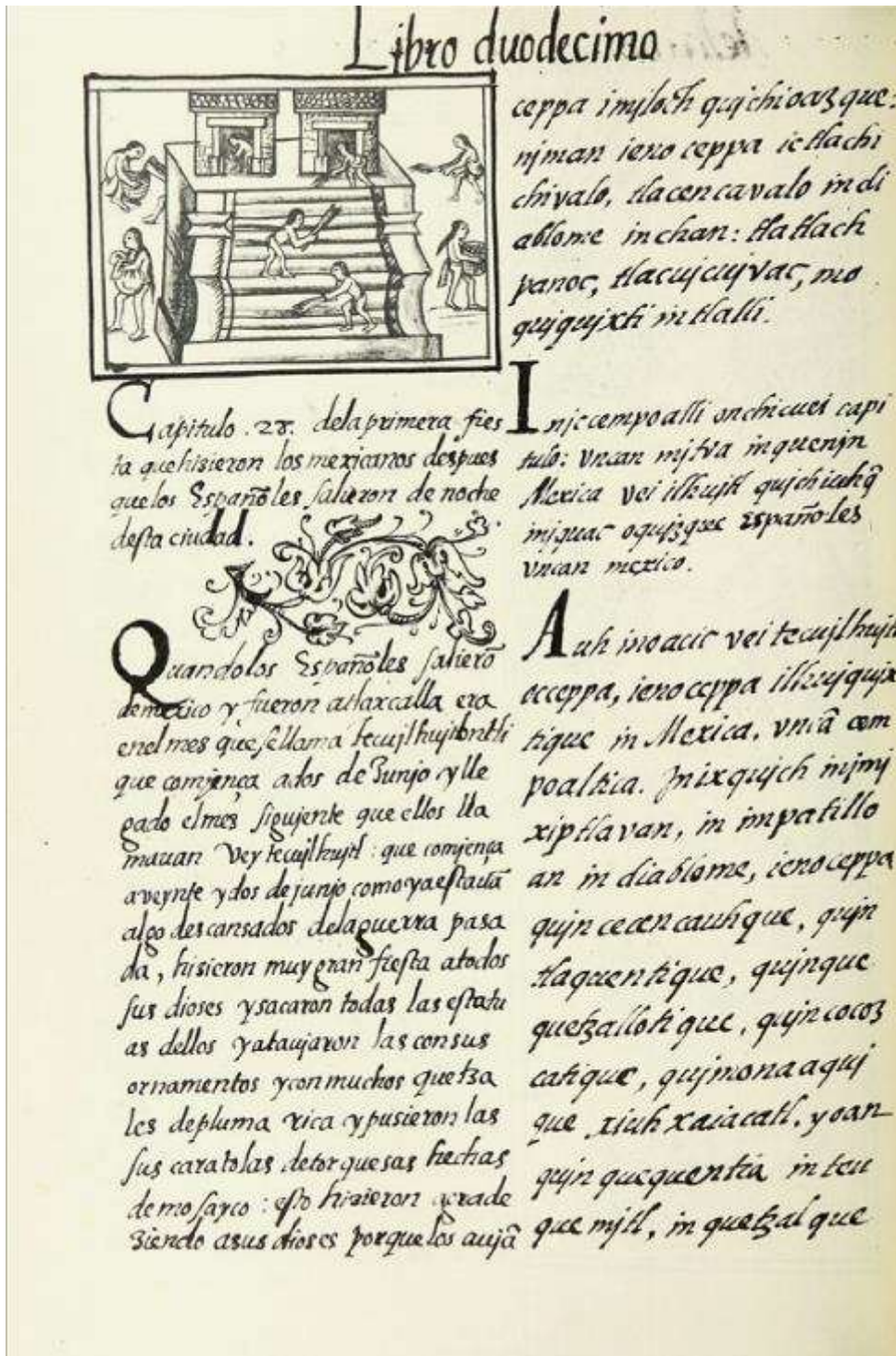




Fig. 6 Sahagún 1979 [1575-70]: vol. 3, bk XII, f. 30v, ©Biblioteca Medicea Laurenziana

Libro duodecimo

*nacoch itechpipilcac in vits  
 naa. oth. teucujtlad xoxo  
 piltic, tlaxoxopiltectli, yoa  
 yiaapiol, nijt; Teucujtlatl  
 in tlachiuhlli, tlazotsonli,  
 yoa tlazantli, tlacana  
 oall. tlacajcujfolli; naitch  
 pilcacia moteneca vifana  
 oaiuh, ixlan tlataon; in  
 ixlan tlataon, vncan nac  
 teuxli, yoa teuxli yoa  
 icpac conquetza in vitszil  
 naad; njma conquetza,  
 hua anecuiett, hivill intha  
 chichi oalli, nijmiltic, adn  
 hyn viltic, achi himpitsaaa:  
 njma iere in tlayolli icax  
 cochtlan in conthalia ite  
 ch pipilcac huih cuexpalli, yoa  
 itz hucastelma, tlacilpalli.  
 macujlan in tlapotvnylli  
 quauh tlachcaiotia, quj  
 mololotia, yoa nijtelma  
 in tlant quimoquentia, hse  
 hsn te comaro, sonycallo: aut  
 inpany quimalpilia, yoa  
 ixicul: mje tlacujfolli tlac  
 quaquallo. camuch vncá.*

Fig. 7 Sahagún 1979 [1575-70]: vol. 3, bk XII, f. 30v, Detail of Bottom Image, ©Biblioteca Medicea Laurenziana





*de la conquista mexicana* fo. 31

*icayliuhc in te comatl,  
 nacaztli, iollotli, cujtlaxiuhc  
 etlapachtli, tucticchi, macpal  
 li, xocpalli, yvan imaxtli:  
 can in maxtlatl, vella coblan  
 guj; auh in jtlama chio in jeno  
 tlaquauallo in jc tlaquyt  
 tli: auh in j vei can amatl,  
 iehoatl in quoadamatl, in jcpa  
 tlaoc comatl: auh in j viac  
 compoalli, in jc tlaquj lollli texo  
 acaxilquj, auh in j quezpan  
 quj mamanticaica iacatec  
 peio: in j eapan can amatl  
 catca, tlapalli in jc tlaquj lollli,  
 in jc tlaezicay lollli: iaca texpa  
 io, can no amatl in tla chioal  
 li, can no iuh quj in jc tlaquj  
 lollli, tlaezicay lollli, yvan i  
 chimal ietia otlatl in ta  
 oioalli, otla chimalli, nauh  
 can tlapotvixtli, quauh tla  
 chioitica, kivi chachapan  
 quj, moteneoa: Tave velli,  
 auh chimal pato, can no  
 iuh quj in j eapan jtl in j clla  
 cuj lollli; yvan navi in j euh  
 ic quj centzilt quj in j chimal*

438

# de la conquista mexicana

fo. 32

todos los principales en el patio grã  
de del cu de Vitsilo buchiti donde  
estava la ymagen hecha de masa  
debledos, y muy ricamente ata  
ujada con muchos ornamentos:  
los quales estan en la letra explica  
dos, y otras ceremonias que se po  
nen en todo este capitulo.

yoan in moxerituh caulique  
nepanjxtinemi: in tetsa qua  
in moxcoquauh, in aguinquj  
caz nequj icqujtlai ieial  
huja in moxcoquavitt: auh in a  
gujn maxixas qujtlalituh  
icacchi, yoan iastaxel. Auh  
in agujn amnijman atlatla  
camati, in amo tetta calruca  
in aquen flatta, vel icquj  
cujtlavitequj, quj mets vi  
tequj, caculhuitequj, calitic  
pa contopeoa, con chie ca  
naoa, con xiquetsa, nijfixi  
quetstish, nanacaz itstiah  
aia temacnaoati; cerca iekoã  
tlamamauh tiala, tlamauhti  
aia, cemjnacaxoa, cemjna  
axtinactia in jachvan vitsi  
lobuchiti in moxerituh caul  
ique. Auh in tlaia catia in ve  
vel tachcavan. in vevichi  
va telhuclujcava, amo qujn  
taujiliaia: auh in iexqujch  
telpestjintli, in cue xpaltjime  
in cue xpaltjitsineque, yoan  
in tozocoleque, in tepallama  
ni, in yiaque; in mo tereoa





Fig. 10 Sahagún 1979 [1575-70]: vol. 3, bk XII, f. 52v, ©Biblioteca Medicea Laurenziana

**Libro duodécimo**

caua otro año en el mes que llama  
 uan Quauhtl Sua que començaua  
 segundo día de hebreo. Luego se  
 sigue el 2º mes que llaman Hla  
 caxipeoalitzli que comiença a veyn  
 te y no de hebreo. Luego se sigue  
 el 3º mes que se llama Toxoztli  
 que comiença a 15 dias de mar  
 to. Luego se sigue el 4º mes que se  
 llama Vey toxoztli que comiença a 3  
 dias de abril en este mes salieron  
 los españoles huyendo de Mexico:  
 En el año pasado. En este año bol  
 uieron algunos dellos virxeron por  
 lauja de quauhtlan y lleuaron has  
 ta tlacuba, y no estuieron mas de  
 siete dias: y luego se boluieron y den  
 de aquarenta dia boluieron otra vez  
 y destruxeron algunos lugares ma  
 taron mas de quatrocientas hom  
 bres que eran maceoales del Hla  
 tilulco. Y de aquarenta dias  
 se contaron dos años de su uenida  
 boluieron todos en el mes que se llama  
 maua Foxcatl.

Hi, ic cax. ts psalli omiame.  
 Te caxitl tontli, ic cax tul  
 psalli omel: vncan cexiuh  
 hico y, inje mique tultea  
 acaloco. Auh in ienocappa  
 qujaca, in ienocappa tiquj  
 mystaque cexiuitl, ipa ma  
 tlacpoalli oca, ipan in 33 cal  
 li; quauhtlan in qujaca,  
 omno tlalico in tlacuban  
 can onchicomisthuico: ni  
 man iaque vmpoaltli. Auh  
 iero cappa qujaca, can quj  
 tiquj que quauhtli tampa  
 istiaque; can tequjtl on te  
 micti tiquj que in tlal ista  
 capan vistaralla: tlal tul  
 ca in mique, achi vel cen  
 zanilli in mjc. Auh in ten  
 ta tashuj, in ietopan nen  
 notzaloc, no vmpoaltia i  
 pan foxcatl; i vel icoxiuitl  
 in tlacuban mique in ten  
 itualco, in Foxcatl. 1.




Fig. 11 Sahagún 1979 [1575-70]: vol. 3, bk XII, f. 32r, ©Biblioteca Medicea Laurenziana



Detail of Bottom Image:





Libro duodécimo

Vinieron los Españoles que ya esta  
 uan entezcucos, y bararon la laguna  
 y vinieron por quauhtitlan hasta Ha  
 cuba y allí se repartieron en capita  
 nias y se posieron en diuersas esta  
 cias Adon Pedro de albarado secu  
 po camjino que va de Hacuba de  
 redio al Hatilulo: el capitán do  
 her nando cortes se puso eno yoaia  
 y guardaua el camjino que va de  
 coyo vacan amexico. De hazia la  
 parte del Hatilulo se començo pri  
 mero la ouerra en vn lugar que se  
 naxtlanillo y llegaron peleando hus  
 ta el lugar que se llama nonoalto  
 donde esta agora vna yglesia que  
 se llama San Miguel; y los Es  
 pañoles se retruxeron no ganaro  
 nada en esta esca. Tam  
 bien el capitán Don her nando cor  
 tes aometio por su parte a los me  
 xicanos, por el camjino que se lla  
 ma acachinapanca: y los mexica  
 nos resistian los grandemente.

li, yoã mjecqujn fin can apiz  
 mjecque, apiz mjicoac, aocac  
 motecuahuaia, aocac taca  
 muchivaia. Ah in cequjn  
 fin can veveca in intech mo  
 thali in cavali, amo cenca  
 qujmjhioti, amonormjecqujn  
 tin ic mjecque: yoã mjec thia  
 cali ic illacalli mjexaiac,  
 icha chaqua chéuic que, iaca  
 cha cha qua chéuic que, cequj  
 tin yixueponque, ixpopo  
 iotque; iquac in manca in  
 in totomanjiztli, vel epual  
 ilhujit, epual tual in qujs  
 in uehlan, in ne machoc, in  
 ialioac, rechalcopa vatista  
 in totomanjiztli, yoã mjec  
 mjecoco tuzauh: amo talic  
 cen cocotuzauh. In mema  
 naco Teuteco: aue in cuetla  
 mits ipan in Panguetzalís  
 tli; vncan vel caxava que  
 in Mexica, in triacoan. Ah  
 in ic iuh quj: njmã ic vitze, va  
 lolinj in Españoles in vni  
 pa Fetecoco: quauhtitlan.




Fig. 13 Codex Mendoza, 64r



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Underlying Work: [PD Worldwide](#) | Digital Copy: [PD Wikimedia](#)



Fig. 14 *Codex Mexicanus*, 76-77, ©Bibliothèque nationale de France

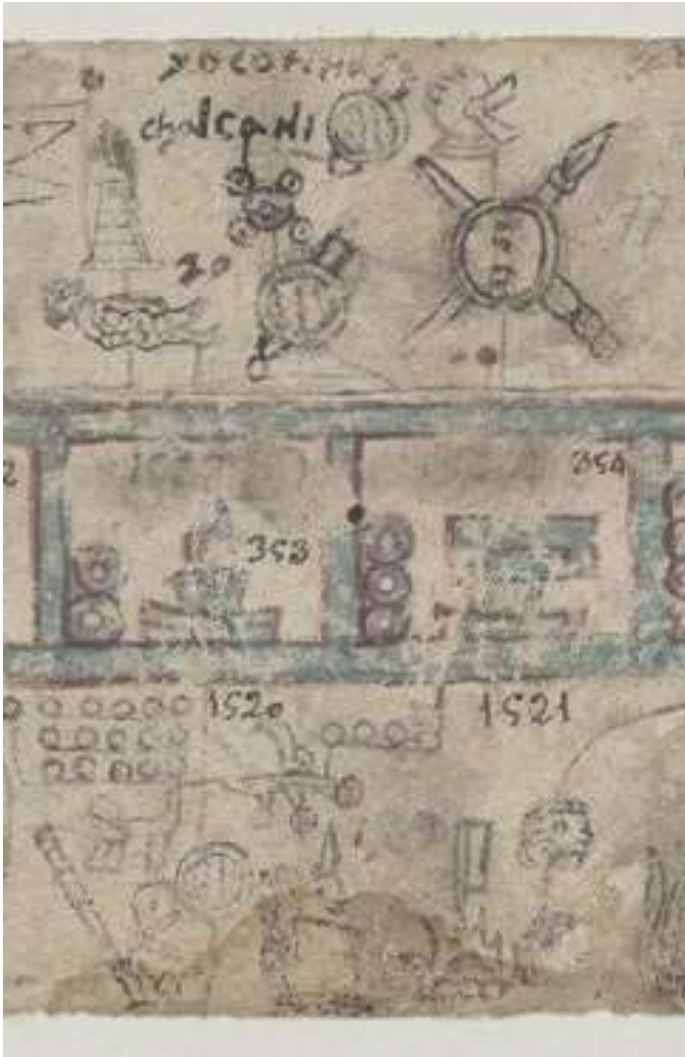




Fig. 16 Codex Aubin, f. 43v, ©Trustees of the British Museum



Fig. 17 Sahagún 1558-1561: f. 69v, © PATRIMONIO NACIONAL

89  
 nanaual — yncipati nanaual ximil ma mechuca yca ma xya xya  
 to tomp mlythi — yncipati xaxab qui onget xmpo ma yca xitititla vno pacha.  
 xaxab mlythi — yncipati xaxab coe de coe qstancilluall xitit ma mechuca.  
 tlax vlythi — yncipati toquax quil calcaubli yhosyititl yca vickoll ma mechuca.  
 qualocall — yncipati motequi ycapati pizicll teqyxti onepo ma.  
 paax vlythi — yncipati to toixitl yca ximil yca xnelhuayo ma mechuca.  
 quavaquilythi — yncipati thandhuall ylauctic ma mechuca.  
 tlapala malythi — yncipati xepitli ocothomechuca yothayopit mlythi ma mechuca.  
 ato navlythi — yncipati xomeximil ypahtia ximil ma mechuca.  
 + tlantatonavlythi — yncipati thalyca naxayotl yca thaxotl thalyca mechuca.  
 neaxa mlythi — yncipati thalyca yca xv holtu thandhuall ma mechuca.  
 tem pilythi — yncipati xompachquill yca pizicll ma mechuca.  
 + tlaltlaclythi — yncipati olaltan thandhuall ma mechuca yca te mexatl.  
 - tlantaclythi — yncipati pizicll yca poyemill ma mechuca.  
 - naayqualythi — yncipati yncipati mechuca mechuca ma mechuca.  
 + yvax mlythi — yncipati naxa xititla.  
 + ixvcolythi — yncipati xaxab yca xititla yca xititla yca xititla ma mechuca.  
 ix tamacebi vlythi — yncipati mechuca yca te quax quil vno ma.  
 ix poy ylythi — yncipati mechuca yca.  
 ix paxa vlythi — yncipati naxa xititla yca.  
 ix cue poylythi — yncipati mechuca yca.  
 axix vlythi — yncipati xititla yca xititla yca xititla ma mechuca.  
 curtla tex ad vlythi — yncipati xititla yca xititla yca xititla.  
 xpaualythi xititla yca xititla yca xititla yca xititla ma mechuca yca xititla.  
 neci vaque xititla yca xititla yca xititla yca xititla ma mechuca.  
 nex vlythi — yncipati xititla yca xititla yca xititla ma mechuca.  
 xiyalythi — yncipati yca xititla yca xititla yca xititla ma mechuca yca xititla.  
 vax vlythi — yncipati mechuca.  
 quatitlythi — yncipati xititla yca xititla yca xititla ma mechuca.  
 tofon qui — yncipati xititla yca xititla yca xititla ma mechuca.  
 xititla — yncipati xititla yca xititla yca xititla ma mechuca.  
 thallaco nax vlythi — yncipati xititla yca xititla yca xititla ma mechuca.  
 yca llata nax vlythi — yncipati xititla yca xititla yca xititla ma mechuca.  
 cuez palia vlythi — yncipati xititla yca xititla yca xititla ma mechuca.  
 thaltaclythi — yncipati xititla yca xititla yca xititla ma mechuca.  
 + quaxo cax vlythi — yncipati mechuca yca te mexatl pizicll onepo ma.  
 mlythi — yncipati mechuca yca.  
 xon te co colythi — yncipati mechuca yca xititla yca xititla ma mechuca.  
 ne cioa cax mlythi — yncipati mechuca yca xititla yca xititla ma mechuca.  
 netha vlythi — yncipati mechuca yca.  
 elohi quax vlythi — yncipati xititla yca xititla yca xititla ma mechuca.  
 te cax vlythi — yncipati xititla yca xititla yca xititla ma mechuca.  
 Quime pach vlythi apbedale esta medicina  
 Naxo quime pach vlythi. no le apbedale esta medicina

Fig. 18, Sahagún 1558-1561: f. 82r, © PATRIMONIO NACIONAL

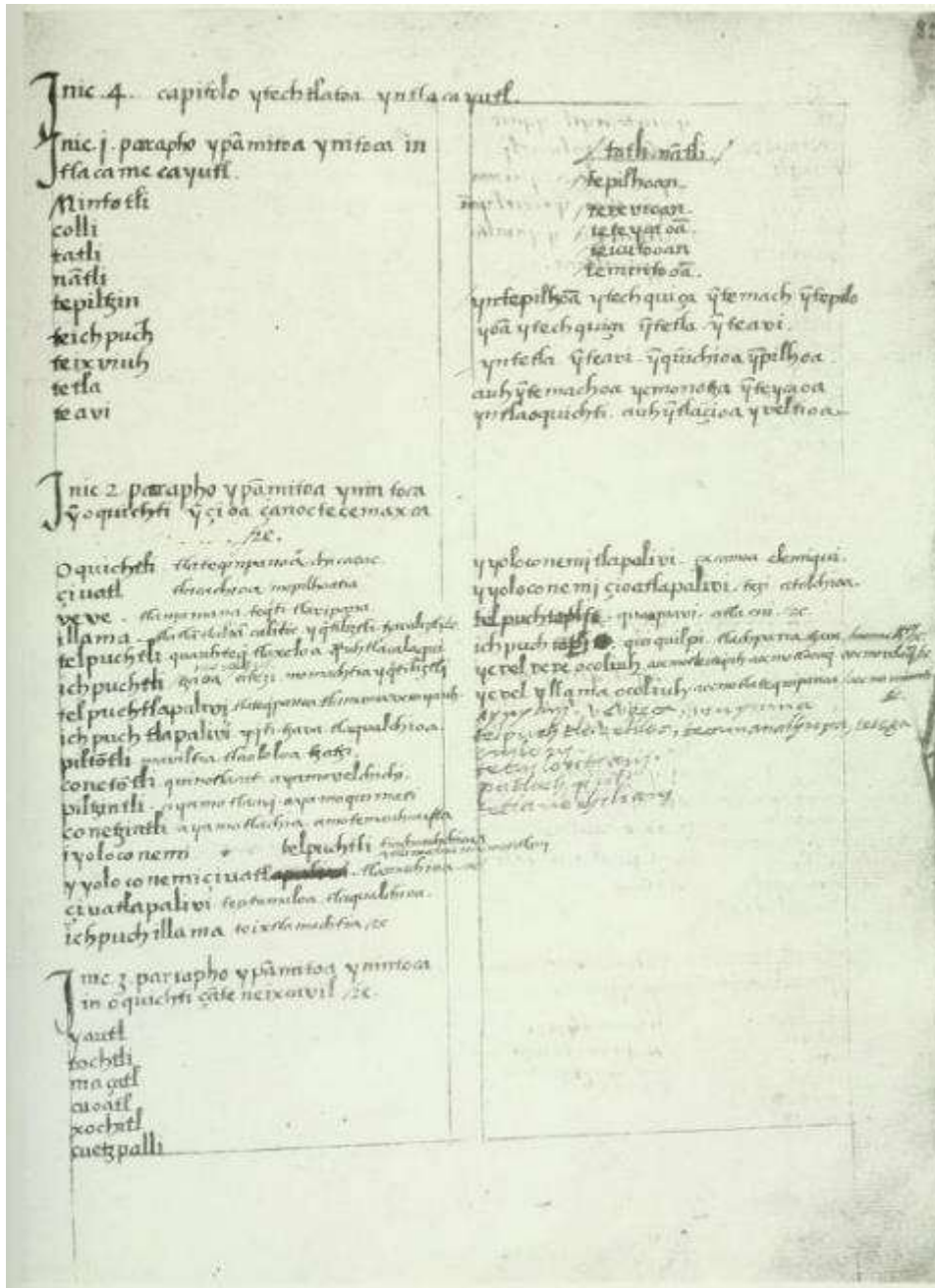






Fig. 20 Inset of Handwriting, Sahagún 1558-1561: f. 283r, © PATRIMONIO NACIONAL

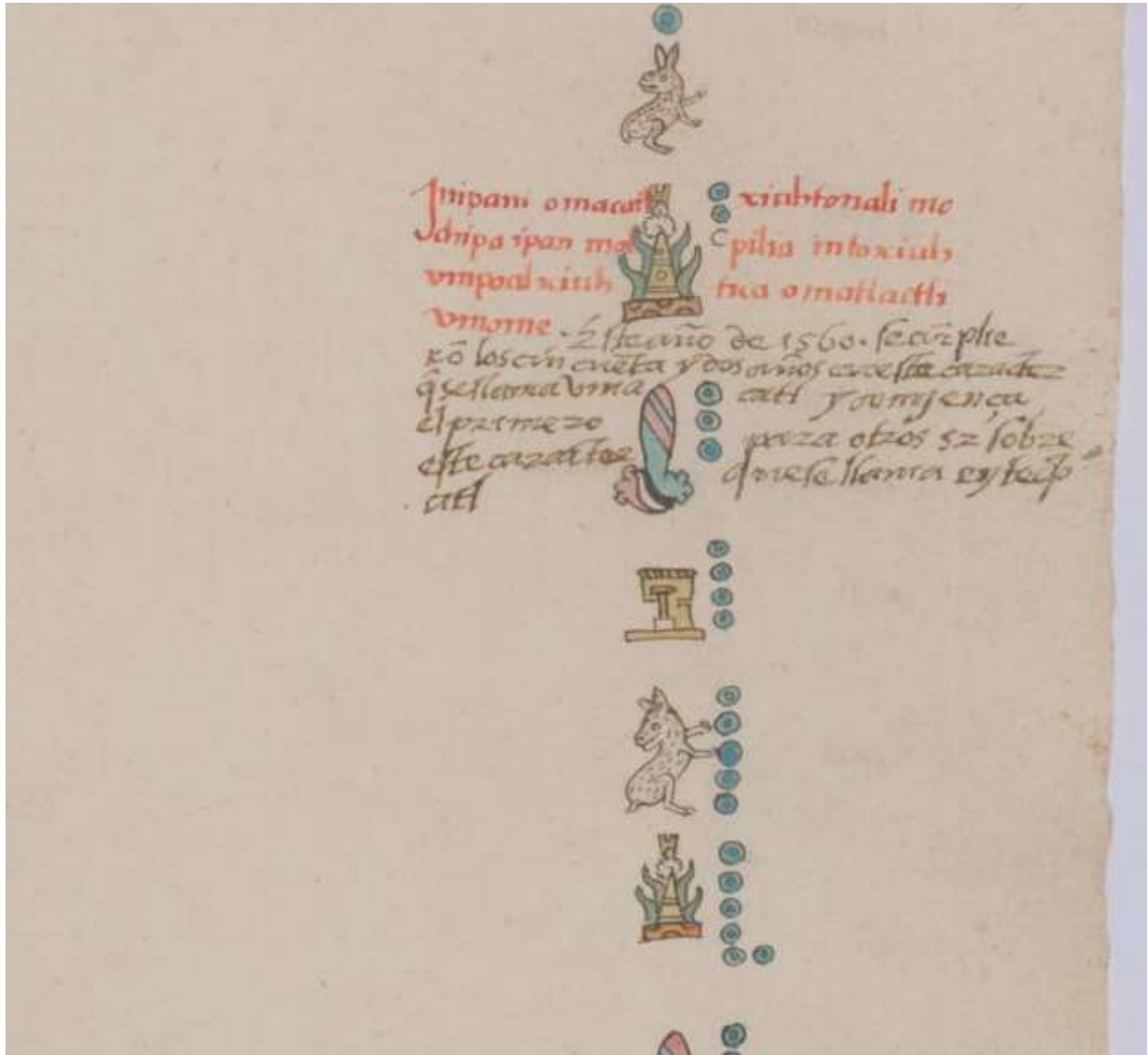
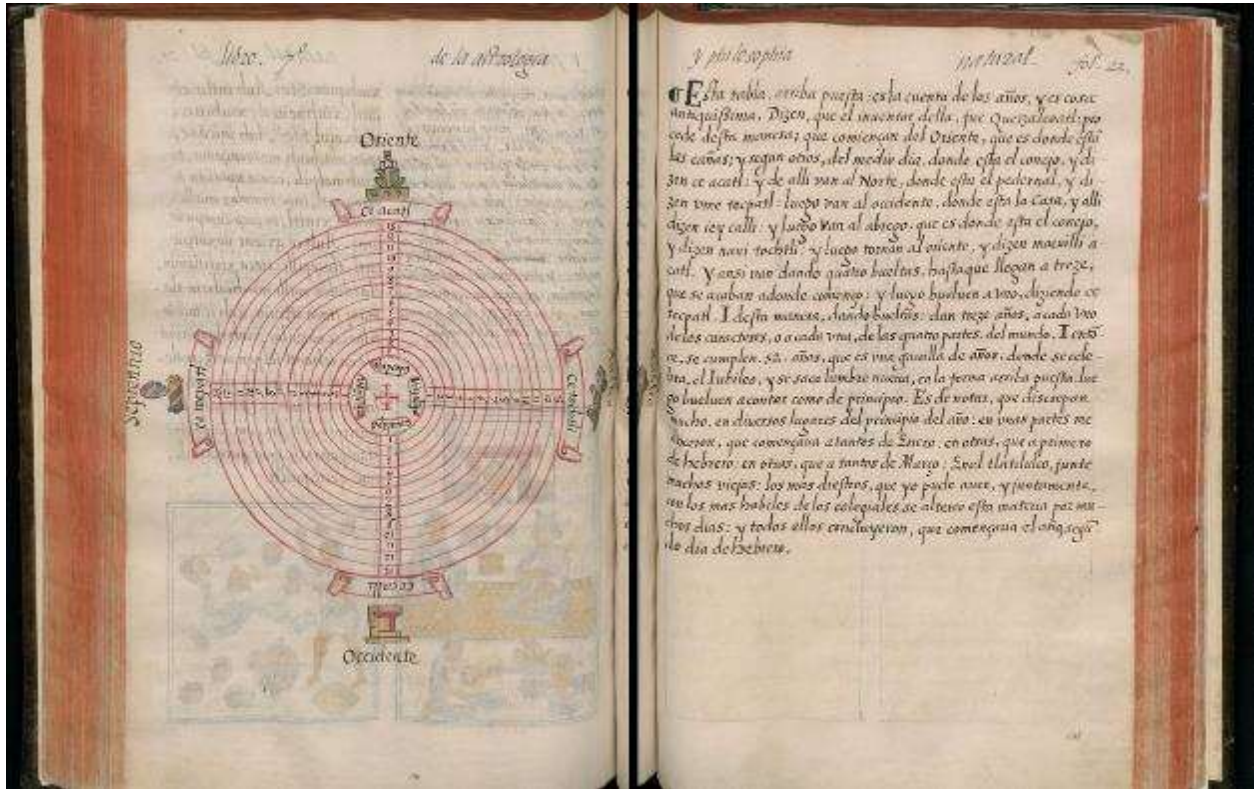






Fig. 22 Sahagún 1979 [1575-1579]: vol. II, bk. VII, f. 21v and 22r, ©Biblioteca Medicea Laurenziana





*y philosophia*

tiuo, que tuuiesse el dicho nombre: y fue tomado vn hombre de vercingo, muy generoso: el qual se desia, xiuhlamyn: y lo tomo en la guerra, vn soldado de tlatlulco, que auja no bre itzcuin: por lo qual despues, le llamauan ael, xiuhlamynmanj, qujere decir to mador, ~~to mador~~ de xiuhlamyn: y en el peño, del dicho captiuo, se hizo la lumbre nueva, y su cuerpo todo quemose, segun era costumbre.



*natural fol 21.*

xiuhquen. etc.<sup>a</sup> Auh in tla ci oatl, xiuhnenetl, xiuhcue, xiuhcoçol etc.<sup>a</sup> Auh inicoac, ipan muchiuh motecuçoma, to xiuhmolpili: cenca nouitlan ic tlanaoati, inic temoloz malli: initoca xiuitl, in çaço campo ic anoz. Auh ce axioac uexotzin catl, tlapocilli: itoca xiuh tlamín, tlatilulco malli muchiuh: in tlamánj itoca itzcuin, auh ic tocaio tiloc, ic notzaloc xiuh tlamínmani: ca iehoatl ic lpan uetz, in tle quauitl imal, muchi tleco tlan injnacaio: auh ça tzo hoalli, inic quixiptlaoiti, in ipan quipouh: tlaolpaoastli ipan quitlatlali, inic quitequalti.

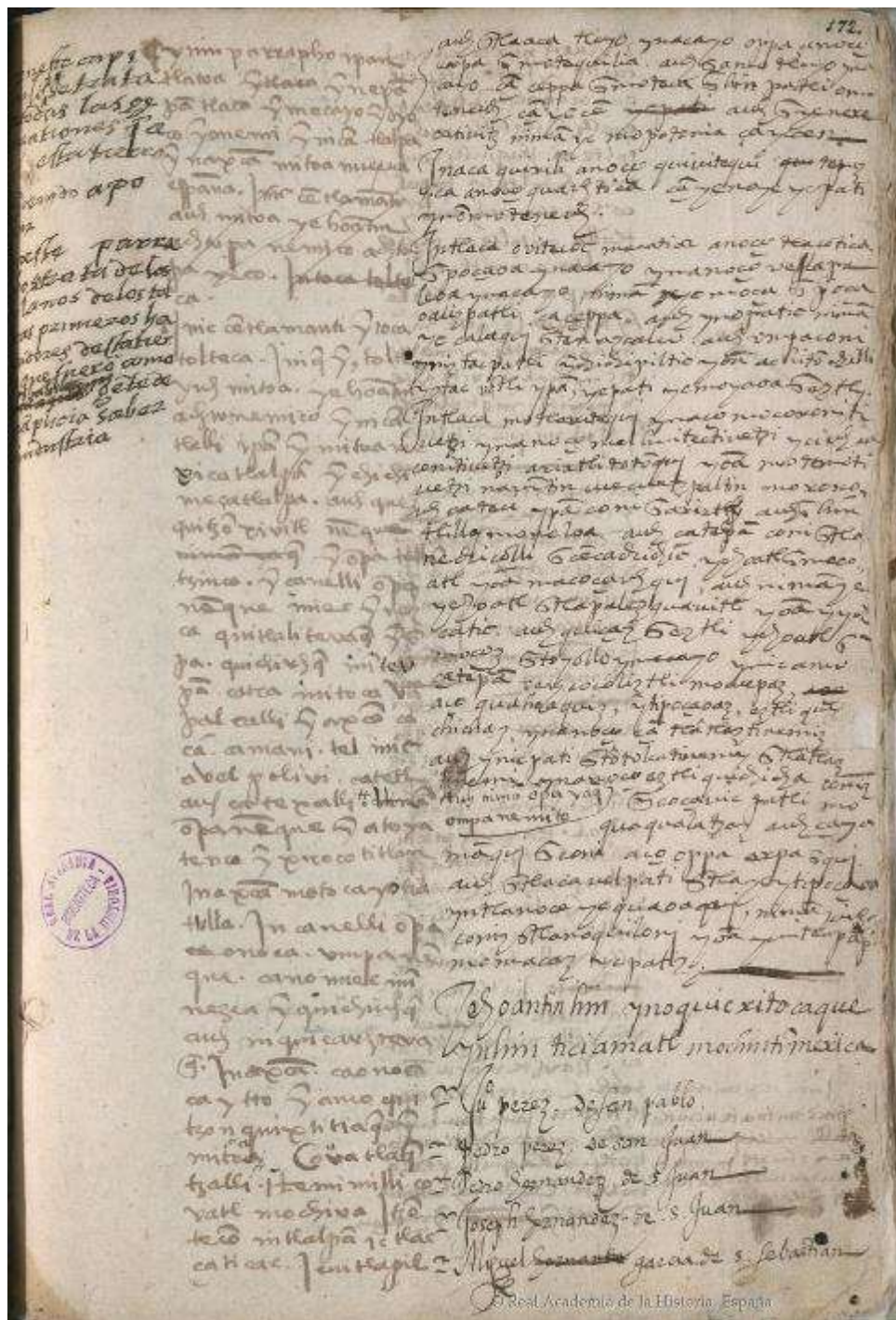


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Fig. 25 Sahagún 1561-1566: f. 172r, © PATRIMONIO NACIONAL



libro

decimo

siendo bien cozidas, y sanguar  
 sea de la vena del coracon por  
 que nose enpese, y se vaya  
 el enfermo, se cuando se yora,  
 para: ose le haga alguna bñcha  
 son en la barriga, o escupa san  
 gre, o ande tosiedo, y para  
 esta tose, o el escupir sangre,  
 beuer sea el agua de la raxys lla  
 mada cocauje patli, coziedo se  
 muy bien, y ha se de dexar en  
 el dia, y asi beuer se dos,  
 o tres vezes, y quando esto no  
 bastare, purgar sea, el enfer  
 mo, o echar le an alguna  
 medicina



intanechiulli in cenaa chistie,  
 ichoat in mecat, ioan maco  
 caduqij: aui niman iekhoat  
 mlatp al ezquavid, isom yichua  
 tic, aui quijaz in ezth, iekhoat  
 in mooz, in toiollo mecat, in  
 ic amo catp, in vei cocolizli  
 mocuspaz, aco quaoaquiz, in  
 poacoz, ezthi quijchidiaz, in  
 anoq candatlaztremis: aui  
 inje pati in totol atinemy, in  
 anoq ezthi quijchidiaz: conjs  
 incoavie patli, mo. quaquila  
 tzaz, aui quanaquij in conjs,  
 aco vppa, expa in quij: aui in  
 thaa vel pati, in thauitipozaoa,  
 in thanoce iequaoaquij, in man  
 icuichea conjs milanoquilonj,  
 ioan iaujtlapampa mo maas  
 ic patli.

Lo sobre dicho fue examinado los  
 medicos mexicanos cuyos nombres  
 se siguen

- Ioan perez, de sanct Pablo
- Pedro perez, de sanct Ioan
- Pedro hernandez, de san Ioan
- Joseph hernandez, de san Ioan
- Miguel garcia, de san Sebastian
- fran<sup>co</sup> de la Cruz, de vitonco
- Balthasar Juarez, de san Sebastian
- Antonio martinez, de san Ioan.

## **Chapter Four: Epidemics Beyond First Encounter, 1535-1615**

### **Introduction**

*Illness in New Spain After Cross-Atlantic Contact*

*Visual and Alphabetic Texts: Historical Records on Diseases Post-Contact*

### **Loss of Life, Loss of Images: Inadvertent Documentation of Disease Impact**

*Visual Depictions of Epidemics 1538 and 1595*

*Indigenous and European Visual Communication*

*Decline in Quality of Visual Communication in Conjunction with Epidemics*

### **Epidemics and Changes in Alphabetic Texts: Health Surveys after 1576**

*Colonial Information Gathering in the Relaciones Geográficas*

*Nahua Respondents and Filtered Authorship*

*Colonial Officials Explain the Depopulation*

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### **Nahua Concepts and Causes of Disease used in Colonial Texts**

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### **Euro-Hippocratic Aspects of the Survey Responses**

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### **Colonial Authorities on Epidemics and Curative Processions**

*Nahua Historian's Epidemics from 1577-1615*

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### **Conclusion**



## Introduction

### *Illness in New Spain After Cross-Atlantic Contact*

Nahuas in New Spain suffered recurring waves of epidemic disease. Although initial contact with Spaniards caused the first major epidemic in 1521, the occurrence and spread of diseases continued throughout the long colonial period. Major illnesses continued to afflict indigenous communities as new immigrants from the Iberian Peninsula arrived in the Americas. The indigenous population decreased with each wave of immigration, Scholars have concluded that diseases such as smallpox, measles, mumps, typhoid, hemorrhagic fevers and typhus caused widespread illness in the indigenous population throughout the period.<sup>578</sup> The epidemic of 1521 was followed by another in the 1540's and yet another in the 1570's. The survivors of these epidemics did not record their temperature or the precise duration of the symptoms that affected their communities. Instead of determining the exact nature of the illnesses, they explained the ultimate causes of widespread sickness. This chapter examines the writings of Nahuas and Spaniards who described and explained these epidemics according to their own conceptions of illness.

Nahuas tended to explain diseases according to their own social and cultural frameworks. Most studies of disease in New Spain have focused on the demographic impact of the epidemics, rather than their social and cultural impact.<sup>579</sup> Whereas previous chapters have focused on

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<sup>578</sup> Robert McCaa, "Spanish and Nahuatl Views on Smallpox and Demographic Catastrophe in Mexico" *Journal of Interdisciplinary History*, Vol. 25, No. 3 (Winter, 1995); Woodrow Borah, and Sherburne F. Cook. "Conquest and Population: A Demographic Approach to Mexican History." *Proceedings of the American Philosophical Society* 113, no. 2 (April 17, 1969).

<sup>579</sup> Sherburne Friend Cook and Lesley Byrd Simpson, *The Population of Central Mexico in the Sixteenth Century*. Berkeley: University of California Press, 1948; Sherburne Friend Cook and Woodrow Wilson Borah. *The Rate of Population Change in Central Mexico, 1550-1570*. Durham, N.C., 1957; Sherburne Friend Cook and Woodrow Wilson Borah. *Essays in Population History: Mexico and the Caribbean*. Berkeley: University of California Press, 1971; Sherburne F. Cook. "The Incidence and Significance of Disease among the Aztecs and Related Tribes." *The Hispanic American Historical Review* 26, no. 3 (1946): 320-35; Noble David Cook. *Born to Die: Disease and New World Conquest, 1492-1650*. Cambridge; New York: Cambridge University Press, 1998; Noble David Cook and W.

different concepts of illness and how they were applied at the time of the conquest, this chapter explores how Nahuas and Spaniards described diseases, healing strategies, and the impact that they had on life after the conquest.

Nahua survivors of epidemics must have reflected on the tragedies that they witnessed in conversations that are, for the most part, inaccessible to historians. A small record of these reflections has been preserved in sources painted and written at the end of the sixteenth century, when people commented on the major epidemics of the 1540's and 1570's.

Nahuas reflected on illness in their responses to a series of questions posed by the Spanish Crown about the loss of life in their communities. They explained their health in relation to the arrival of Spaniards and changes in modes of living. Nahua respondents, often the local nobility, clearly pointed to changes in bathing, food, clothing, and shelter as the reasons for the widespread sickness. They stated that before the arrival of Europeans they lived longer and enjoyed healthier lives. They remembered and recorded in their responses that it was only after contact with Europeans, and subsequent changes in their traditional habits, that diseases spread widely through their communities. They considered widespread disease to be a new feature of life under colonial rule.

On the other hand, many Spanish authors relied on Hippocratic-Galenic methods to assess the healthiness of the natural environment. Spaniards and people of Spanish descent focused on the qualities of the water and air of the indigenous towns under their charge. They often faulted the unhealthiness of the surroundings as the cause of the poor health of Nahua communities. Their conclusions, based on European frameworks for assessing health, differed

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George Lovell eds. *"Secret Judgments of God": Old World Disease in Colonial Spanish America*. Norman: University of Oklahoma Press, 1991.

from those presented in texts written by Nahua respondents. At the same time, many Spanish texts use Nahuatl terminology to describe rampant diseases in New Spain, instead of Spanish terms for disease. The adoption of new or foreign language terms reveals how Spaniards viewed the devastating diseases of New Spain as unique to the colony, unlike any experience of disease back in Spain.

The colonial texts that document disease combine European and Mesoamerican features. Before the arrival of Spaniards, Nahuas recorded important information using a system of pictorial images; by less than a generation after the conquest, they had begun to learn and practice alphabetic writing and art style. However, describing the resulting mixed graphic systems as "hybrid" is neither helpful nor entirely clear.<sup>580</sup> Acknowledging the complexity of sources makes it possible to examine how each text presents different types of information.

*Visual and Alphabetic Texts: Historical Records of Diseases in the Post-Contact Period*

This chapter examines a variety of Nahua pictorial and alphabetic texts that remembered and sought to explain disease in New Spain. Several pictorial texts depict how Nahuas viewed the widespread loss of life in their communities. The *Codex Telleriano Remensis*, *Codex Mexicanus*, *Tira de Tepechpan* and the *Codex Aubin* refer to major disease periods and suggest how colonial-era epidemics prevented the continued production of pictorial texts. In particular, the death of many specialized artists who cultivated the art of making paints led to a loss of knowledge and labor necessary to sustain Mesoamerican traditions of writing.<sup>581</sup> Over time, Nahuas turned increasingly to alphabetic writing to describe diseases. Some of these sources

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<sup>580</sup> Carolyn Dean and Dana Leibsohn, "Hybridity and Its Discontents: Considering Visual Culture in Colonial Spanish America" *Colonial Latin American Review*, 2003, 12:1, 5-35.

<sup>581</sup> Diana Magaloni Kerpel, *The Colors of the New World: Artists, Materials, and the Creation of the Florentine Codex*. Los Angeles: Getty Research Institute Council Lecture, 2014. 35-40.

were written in Nahuatl, but many others were recorded in Spanish, usually based on Spanish inquiries, such as responses to the *Relaciones Geográficas*.

One of the best examples of Nahuatl-language writings on disease comes from a prolific Nahua historian, don Domingo de San Antón Muñón Chimalpahin Quauhtlehuanitzin, who paused to reflect on disease in his many historical writings, his "annals." Chimalpahin recorded important events that occurred in Mexico City and its environs from preconquest times to the early 17th century. One of his accounts, the so-called *Diario*, resembles the traditional Nahua annals genre in that it recounts numerous memorable events on an annual basis, from secular and ecclesiastical ceremonies to public festivals and plagues. In his organization and presentation of events, the *Diario* also resembles the Spanish/European genre of the same name. Fluent in Nahuatl and Spanish, Chimalpahin wrote of events long before his life, but he also commented on events that he had witnessed firsthand. Writing in Nahuatl in the late sixteenth and early seventeenth centuries, he relied much more on the alphabet than on older pictorial forms of writing associated with the Nahua annals genre.

### **Loss of Life, Loss of Images: Inadvertent Documentation of Disease Impact**

#### *Visual Depictions of Epidemics 1538 and 1595*

The *Codex Telleriano-Remensis* (hereafter TR) describes the severity of colonial epidemics to a mixed indigenous and Spanish audience by incorporating Mesoamerican and European elements. According to Eloise Quiñones Keber, the indigenous artists who worked on the TR began painting and writing by 1553 in Tlatelolco, and the Spanish annotations were added by 1555.<sup>582</sup> Following the traditional format of painted manuscripts, the codex contains

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<sup>582</sup> Eloise Quiñones Keber, *Codex Telleriano-Remensis: Ritual, Divination, and History in a Pictorial Aztec Manuscript*. Austin: University of Texas Press, 1995. 115. How and why the work was commissioned, where specifically it was made, the exact authorship, and the date and means it was taken to Europe as are still mysteries

the Mesoamerican ritual calendar, the divinatory almanac, and concludes with a history of the Mexica migration from Aztlan, the dynastic rule of nine Aztec leaders, and four decades of the colonial period. The source contains three discrete sections and one section of the historical chronicle depicts major deaths in the mid 1500's.

The TR recorded that in the year of Seven Rabbit (1538) an epidemic disease struck central Mexico. A portion of the TR depicts the second period of epidemics from the late 1530's to 40's. The page shows the year sign of seven rabbit in glyph with "1538" written above in roman numerals (Fig. 1). Connected to the year sign by a black line is a pair of people with black spots covering their skin. The pair, a man identified by his cloak followed by a woman wearing a huipil, are drawn with their bodies contorted and eyes closed to indicate death. The Spanish annotation explains that during that year many people died of *viruelas* or smallpox.<sup>583</sup> It is useful to compare the image of this event to the way widespread mortalities are depicted in previous years.

### *Indigenous and European Visual Communication*

Nahua artists chose to represent the bodies of those who died in the year seven rabbit in the same manner as those who had died in previous natural disasters. For example, in the years of 1447 and 1454, depicted on folio 45, people perished during a severe snowstorm and from famine (Fig. 2). The first image of the storm, below the year eight reed or 1447, shows two figures, the upper lying on his side and the lower suspended upside down. The figures are drawn above and beside a temple glyph, surrounded by a cloud of dots representing snowfall. The second image, corresponding to the year one rabbit or 1454, depicts a famine, represented by three contorted bodies buffeted by gales of dust. First, a male lies flat on his back; below are

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<sup>583</sup> Quiñones Keber. *Codex Telleriano-Remensi*, 94, f. 45v.

male and female victims, their eyes closed. A Spanish audience could read the annotations, explaining the disasters, but a Nahua reader could easily understand the cause of their deaths from the way that their twisted bodies are depicted.

In Nahua iconography, human bodies depicted in an upside-down position indicates a disturbance in the normal life conditions, resulting in death. Quiñones Keber writes that "the upturned figures literally represent an inversion of the natural order, when people died because of nature's failure to function in a predictable way."<sup>584</sup> Figures representing death due to natural disasters such as snowfall or famine were depicted physically engulfed by the elements that led to their demise. In contrast, those who died of disease in 1538 exhibited afflictions only on their skin and were not surrounded by anything. These visual representations suggest that the Nahua artists of the TR assimilated new phenomena, such as smallpox, into their worldview but depicted them in ways that communicated to a colonial audience. The absence of anything surrounding the corpses also suggests that the artists did not know the cause of the mysterious disease that had killed so many people, and simply drew the symptoms of death--spots on the skin.

The second depiction of epidemic disease in the TR appears to depart radically from the first. Stacks of shroud-wrapped bodies are connected to the year glyphs for 1544 and 1545 (Fig. 3). The Spanish annotation remarks that the disease affected "Indian communities," as opposed to Spaniards and ethnic others, presumably.<sup>585</sup> The image portrays the victims much like European texts did, laid out horizontally using "the European convention of showing rows of

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<sup>584</sup> Quiñones Keber, *Codex Telleriano-Remensis*. 217; Kevin Terraciano mentioned in a personal communication that the sacrificial victims on steala at Monte Alban, the so-called *danzantes*, exhibit the same contorted, floating in liminal space, appearance and that he suspects that this conception of the dead is a Mesoamerican-wide phenomenon.

<sup>585</sup> Quiñones Keber, *Codex Telleriano-Remensis*. 96. Fol. 46v.

figures to suggest great quantities" rather than the conventional Nahua mortuary bundle,<sup>586</sup> a seated wrapped figure like that seen in the depiction of the death of Chimalpopoca in 1426 (Fig. 4). These images demonstrate the artists' skill in appealing to multiple audiences, impressing upon them the devastation of epidemic disease. These are the only images of the epidemics in the TR, but the following section discusses one of the last annotations in Spanish, revealing the impact of disease on the continued production of the manuscript, especially its pictorial, painted quality.

#### *The Decline in Quality of Visual Communication in Conjunction with the Epidemics*

The final pages of the TR represent a decline in the quality of visual presentation in the mid-1550's. The last painted year sign was drawn for the year 1554, a time of epidemics (Fig. 5). The historical chronicle abruptly ends in 1557; the final year-date entries lack painted images. The decline of painted images reflects the chaos of the period, when. The Spanish annotator of the TR wrote that in that year of 1550 "many Indians in New Spain died from mumps," thereby linking the decline of the manuscript with the re-occurrence of disease (fig. 6).<sup>587</sup> The scenario reminds us of the artists who struggled to complete the FC some two decades later, in the 1570s. In the FC, images in the second half of Book 11 and nearly all of Book 12 (and much of Book 6) contain no color.<sup>588</sup>

The decline in quality of indigenous authored manuscripts in New Spain thus reflects the catastrophe of the epidemics. The last sections of the TR are incomplete. The folio that refers to the year 1550 and the devastating epidemics contains other year signs with no accompanying

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<sup>586</sup> Quiñones Keber. *Codex Telleriano-Remensis*. 238.

<sup>587</sup> Quiñones Keber. *Codex Telleriano-Remensis*. 98. Fol. 47v. *paperas* or lymphatic infection

<sup>588</sup> Bernardino de Sahagún, *El Códice Florentino de Bernardino de Sahagún*. 3 vols. Mexico City: Secretaría de Gobernación. Vol III, bk XII, fos. 70r through 89v.



entries. The following folios are hastily sketched, lacking year signs and devoid of color.<sup>589</sup>

Likewise, the Codex Aubin and the Codex Mexicanus document a decline in pictorial writing during the 1550's.

The Codex Aubin described four periods of major illness following the death of Cuitlahuatzin from smallpox. The first referred to the spread of plague or *cocoliztli* in 1545, when people suffered severe nosebleeds. Drawn next to the text is a bent over person with blood pouring from his nose (fig. 7). The image displays different symptoms from the pustules drawn on the bodies of Cuitlahuatzin in 1520 and the sufferers of *totomonaliztli* drawn next to the year 1595 (fig. 8) because they describe two different diseases. The Nahuatl painters and authors differentiated between different epidemics and chose to represent the symptoms visually.

Another section of the Codex Aubin refers to how colonial officials attempted to deal with the epidemics. On the front side of the 53rd folio, the text and images refer to a *çahuatl* epidemic in 1563 and describe the ways that colonial authorities handled the outbreak.<sup>590</sup> The Nahuatl alphabetic text, written beside a mortuary bundle covered with pustules (fig. 9), recounts that the epidemic "only ended in the year when the Catholic priests helped us and came to our houses and performed confessions with the doctrine."<sup>591</sup> The authors explained the importance of priests as confessors during the epidemics, and efforts to build hospitals to serve indigenous parishes.

As with the FC and the TR, disease seems to have affected the authors and artists who compiled the Codex Aubin. The page that follows the epidemic of 1595 is visibly less organized

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<sup>589</sup> Quiñones Keber, *Codex Telleriano-Remensis*. 98-101. f. 47v-48v.

<sup>590</sup> *Codex Aubin*. Codex Aubin / Códice Aubin 1576 / Códice de 1576 / Historia de la nación mexicana / Histoire mexicaine. British Museum electronic resource, Museum number: Am2006, Drg.31219 fo. 49v.

<sup>591</sup> *Codex Aubin* f. 53v.

and lacks the color of the earlier pages (fig. 10).<sup>592</sup> It is missing many telltale indigenous elements, such as year glyphs and images, and color. The colorless folios which contain only alphabetic text suggest the loss of skill and labor that produced previous pages of the Codex Aubin.

The quality of the Codex Mexicanus also declined over time. Although artists used many illustrations to document migration and the arrival of Spaniards (as discussed in Chapter Three), the pictorial component of the text faded by the 1570's. Whereas the artists portrayed the first epidemic of 1521 with a pustule-covered corpse, the epidemic of 1576-7 is described with alphabetic text. On the same page, below the year sign 6 Tecpatl (Flint Knife), the artists scrawled one word: *cocoliztli*. The painter included a skull above the calendar sign, a symbol used by both Nahuas and Europeans to indicate death (fig. 11). In the wake of widespread disease, indigenous forms of representation withered away (fig. 12).<sup>593</sup> Following the *cocoliztli* epidemic, the year-sign glyphs were drawn hastily and lack color, and the artist began to rely on roman numerals to denote the year.

As visual forms of representation in Nahua annals declined, Nahuas began to rely increasingly on alphabetic writing to describe the epidemics that threatened to destroy the very existence of their culture and civilization.

### **Epidemics and Changes in Alphabetic Texts: Health Surveys after 1576**

Nahua authors' ability to manipulate Spanish terminology and concepts is proof of their quick adaptation to new colonial realities. Although some historians attributed such changes to

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<sup>592</sup> *Codex Aubin*. f. 68v

<sup>593</sup> *Codex Mexicanus*. Bibliothèque nationale de France, Département des Manuscrits, Mexicain 23-24 87, electronic resource, f. 87.

the success of the so-called "spiritual conquest," disease was a decidedly more important factor.<sup>594</sup> There is no question that the vitality of indigenous communities declined over time: Sahagún even feared the extinction of native peoples when he wrote in the 1570s.<sup>595</sup> The decline of Nahuatl pictorial writing was one manifestation of a general transformation.<sup>596</sup> Nahuatl texts written in the period that Lockhart called Stage Two (beginning in 1545, when Spanish-loanwords became more prevalent) demonstrate the extent of the change.<sup>597</sup> In this period, Nahuas (and Spaniards) resisted using Spanish terminology to describe diseases. Rather, Nahuas relied on their own language to understand and communicate information about epidemic disease. Alphabetic texts relied on Nahuatl terms for disease, even when the text was written in Spanish. Alphabetic sources such as the *Relaciones Geográficas del Siglo XVI* (hereafter RG, 1577-1585) surveyed a wide cross-section of communities and people about health and disease.

The RG provides crucial insight into how people in New Spain understood how disease had affected indigenous communities. Officials sought to understand the extent of the depopulation in order to extract resources in the form of tribute. Charles Gibson noted that "On the whole, the procedures of tribute extraction from the 1550's to 1575 may be understood as Spanish responses to Indian depopulation, notably to the plague of 1545-48. The effect of the plague of 1576, after this, was a new insistence upon maize plantings."<sup>598</sup> Spanish bureaucrats

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<sup>594</sup>Robert Ricard, Lesley Byrd Simpson, *The Spiritual Conquest of Mexico*. Berkeley: University of California Press, 1966.

<sup>595</sup> Sahagún, 1979 [1575-1579] vol. 3, bk. XI, f. 237v.

<sup>596</sup> Lockhart, *Nahuas*, 345.

<sup>597</sup> Lockhart, *Nahuas*, 284.

<sup>598</sup> Charles Gibson, *Aztecs*, 203

were aware of the depopulation, but still debated its cause.<sup>599</sup> They seized upon the survey as a means to gather more information about the nature and cause of increasing indigenous mortality.

One Spanish bureaucrat with an interest in New Spain, the royal cosmographer Juan López de Velasco, sought to gather information directly from people in New Spain about the cause of depopulation. He realized this fact-finding mission in the form of a questionnaire; the questions and responses from New Spain make up the RG. (Excerpts of the questions can be found following the chapter). Following tradition, he sent from Spain to the Indies a questionnaire inquiring about the people, climate, and geography,<sup>600</sup> responses which contain explanations of the causes of depopulation.<sup>601</sup> The RG documented attributed the cause of depopulation largely to epidemic disease, and pointed to the widespread occurrence of disease after arrival of the Europeans.

#### *Information Gathering in the Relaciones Geográficas*

The Crown requested its colonial subjects to complete answers to a list of fifty questions. The first ten questions of the RG were intended for places with Spanish colonial citizens; questions 11 through 15 were appropriate for Indigenous communities. The remaining questions were divided geographically; 16-37 for inland communities and 38-50 for ports and coastal towns. The RG began with questions about the political divisions and environmental characteristics of the lands, seeking information about the language, historical traditions, living

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<sup>599</sup> Bartolome de Las Casas, *Brevisima relacion de la destruccion de las Indias*, pub. 1552. See also Jeremy Lawrence, *Spanish Conquest, Protestant Prejudice, Las Casas and the Black Legend*. Nottingham, England: Critical, Cultural, and Communications Press, 1999. 23ff, also Lawrence A. Clayton. *Bartolome de las Casas: A Biography*. Cambridge: Cambridge University Press, 2012, 177.

<sup>600</sup> The questionnaires for the Kingdom of Castile are referred to as the *Relaciones Topográficas* see Cebrián Abellan and Cano Valero (1992: 13-14)

<sup>601</sup> Howard Cline, "The Relaciones Geográficas of the Spanish Indies, 1577-1586." *Hispanic American Historical Review* 44, no. 3:1964, 194.

structures, and social and economic life of the people in New Spain. Twenty-three sets of responses to the RG exist for central Mexico, each providing details about the health of indigenous communities and the perceived cause of diseases since the arrival of the Spaniards. The identity of the responders and their cultural background influenced the results of the survey responses, including the terms that they used for disease, and the causes that they attributed to them.

The people who wrote the RG responses were all connected in some way to the administration of New Spain. The viceroys who received the RG were instructed to respond to the questionnaire in some general way and to send it on to the governors, *corregidores* (a local administrative and judicial official for a royal jurisdiction or *corregimiento*), and *alcalde mayores* (the acting official in the absence of a *corregidor*) of New Spain. These officials were charged to identify each Spanish and Indian town in their jurisdiction, and to send the RG instructions to them. Local municipal council members were in turn responsible for the responses; however, if there were no council, the questionnaire was to be sent to a priest or friar, if the town had no resident priest. The main responders were Spanish office-holders: the *alcaldes mayores* or *corregidores*. They wrote responses in conjunction with scribes and/or bilingual translators, conferring with local indigenous leaders. The local officials were generally literate people of Spanish descent with little knowledge of the lands that they managed, who therefore relied upon local indigenous elites for information.

#### *Nahua Respondents and Filtered Authorship*

Indigenous elites were precisely the people targeted by the survey. The instructions for the text made clear that officials should find local experts who were *personas inteligentes de las*

*cosas de la tierra* ("people knowledgeable about things of the land.")<sup>602</sup> Native elites might have been motivated to answer questions about their lands and peoples for Spanish officials because it would bring them closer to the colonial centers of power. Their roles as community leaders allowed them to control channels of communication between Spanish officials and local people. Indigenous elites could use their power as intermediaries to shape local processes as well as to foster a closer relationship with colonial authorities. Their responses to the survey, in the words of Barbara Mundy, "were to be filtered through the voice and the language of the *corregidor* or *alcalde mayor* before being set in the Spanish text that was to be sent back to the royal government."<sup>603</sup> The histories from indigenous elites were filtered, not excluded. Raquel Alvarez Peláez reaches a similar conclusion, that Spanish authorities utilized local indigenous knowledge while imposing European categories.<sup>604</sup> Peláez's assertions encourage scholars to locate the indigenous voices recorded in the RG.

### *Colonial Officials Explain the Depopulation*

The highest-ranking Spanish official in the land, the Viceroy don Martin Enríque, explained in a letter to his king, Phillip II, dated 1576, that "According to some ancient indigenous people, these great deaths that occur every so often over the years have always existed among them."<sup>605</sup> The viceroy's explanation, written a year before the deployment of the

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<sup>602</sup> René Acuña. *Relaciones geográficas del siglo XVI*. México: Universidad Nacional Autónoma de México, 1985. Vols 6, 7, and 8. Introduction "may encharge them to intelligent persons with knowledge of matters of the area, requiring them to follow the specifications of the Memorandum."

<sup>603</sup> Barbara Mundy, *The Mapping of New Spain: Indigenous Cartography and the Maps of the Relaciones Geográficas*. Chicago: University of Chicago Press, 1996, 32.

<sup>604</sup> Raquel Álvarez Peláez, *La Conquista de la naturaleza americana*, Madrid: Consejo Superior de Investigaciones Científicas, 1993.

<sup>605</sup> "Carta del virey de la Nueva España Don Martin Enríquez al Rey Don Felipe II, dándole cuenta de la ejecución de diferentes órdenes que se le havian comunicado y de otros varios asuntos. Mexico, 31 de octubre de 1576" *Cartas de*

RG questionnaire, contrasts starkly with responses from the indigenous towns of New Spain. It is possible that the viceroy's idea of "always existed" implies only "since 1520," but it is unlikely. Of the RG responses from central Mexico written in collaboration with Nahuas, none claimed that the indigenous people experienced periods of general deaths before the arrival of Spaniards.

Advocates and writers arguing for better treatment for indigenous people, such as Bartolomé Las Casas and Alonso de Zorita, argued that the indigenous population decreased solely due to excessive cruelty during forced labor.<sup>606</sup> Many responses of the RG also speak to the harmful impact of excessive labor. But most refer to disease as the main cause of population decline.

#### *The Leading Question Format of the Survey*

The multilayered format of the RG questionnaire called for the interaction of Spanish officials and indigenous leaders of communities. Many questions contained several different requests for information. For example, question five inquired about population levels and about the inclinations, modes of living, and languages of the indigenous inhabitants. One of the questions about health asked the authors to document responses from people who were alive before the arrival of Europeans. The question led respondents to make connections between depopulation and the way they used to live in the past. The Spanish author, consciously or not, tied descriptions of indigenous lifeways to death from disease in native communities. The question asked the responder to "state whether the district is inhabited by many or few Indians

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*Indias*. Madrid 1877. 331 "Dizen algunos indios viejos que estas mortandades de tantos á tantos años, siempre las huuo entrellos."

<sup>606</sup> Zorita writes based on his experience in New Spain from 1556 to 1566. He began writing upon returning to Spain in 1566 and finished in 1585. Doctor Alonso de Zorita (Çorita) *Breve y sumaria relación de los señores...de la Nueva España*. 1941 in Joaquín García Icazbalceta, ed., *Nueva colección de documentos para la historia de México*. México: Editorial Chávez Hayhoe.



and whether in former times it had a greater or lesser population and the causes for the increase or diminution..."<sup>607</sup> The question sought population estimates from "former times," in other words times before Spanish rule, a question that could not be addressed by any colonial official without consulting indigenous elders. Another question asked local responders for information about health in "ancient" times.

Question fifteen asked about the health of indigenous inhabitants and encouraged the responder to make comparisons between colonial and pre-colonial times. The question asked, "whether they used to be more or less healthy in ancient times than they are now, and what reasons may be learned for this."<sup>608</sup> The question was directed to an indigenous respondent, assuming that the official could communicate effectively with indigenous people to get an answer. All the responses to the RG referred to the health of the region.<sup>609</sup> The text of each RG response compared pre-contact disease conditions with current evaluations of disease, population levels, and average life spans. The respondents had many ideas about the causes of epidemics, but were unanimous about their timing.

#### *Indigenous Respondents: Arrival of Epidemics and Europeans*

Indigenous leaders from many communities testified to the decline of their populations since the arrival of the Spaniards. The authors of the RG from Las Cuatro Villas wrote that no

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<sup>607</sup> "De muchos o pocos indios, y si ha tenido más o menos en otro tiempo que ahora, y las causas que dello se supieren; y si los que hay, están poblados en pueblos formados y permanentes; y el talle y suerte de sus entendimientos, inclinaciones y manera de vivir; y si hay diferentes lenguas en toda la provincia, o tienen alguna generalmente en que hablen todos." René Acuña, *Relaciones Geográficas del siglo XVI* (México: Universidad Nacional Autónoma de México, 1985), Vol. 6, 16-19.

<sup>608</sup> "Cómo se gobernaban y con quién traían guerra, y cómo peleaban, y el hábito y traje que traían y el que ahora traen, y los mantenimientos de que antes usaban y ahora usan, y si han vivido más o menos sanos antiguamente que ahora, y la causa que dello se entendiere." René Acuña, *Relaciones Geográficas del siglo XVI* (México: Universidad Nacional Autónoma de México, 1985), Vol. 6, 16-19.

<sup>609</sup> From here onward I will use the terms authors or creators to refer to the people who created the text and maps that responded to the questions of the RG.

epidemic disease existed in the community during pre-contact times. The *alcalde mayor*, the *corregidor*, and a scribe fluent in the *Mexicana* language (Nahuatl) explained that “they understand that the Spaniards have brought these sicknesses because after they arrived, the natives had them.”<sup>610</sup> The blunt association of the Spaniards' arrival with disease was likely the collective response of “elderly natives from this town of Huaxtepec, Andrés Vázquez, Pedro Cocoliloc, Gabriel Hernández, and Cristóbal Zoacoacatl.”<sup>611</sup> Local Spanish officials may have experienced and learned about the drastic changes in indigenous communities firsthand, but only indigenous people could specify details in a document destined for the crown.

Not a single RG from central Mexico claimed that epidemic diseases had existed before contact with Europeans and the subsequent invasion. The respondents confirmed that they knew for certain that the invaders brought diseases; they described the time before their arrival as healthy, and the time afterward as unhealthy. Several responses that explicitly name Spaniards as the source of the epidemics were originally written in Nahuatl and then later translated into Spanish.

The introduction to the response from Ocopetlayucan recorded that it was translated from Nahuatl (*Mexicana*) to Spanish (*Castellana*). The text of the response made it clear that the responses were not from the scribe or a Spanish official. The person writing described the diseases in Spanish terms but then explained that “among themselves they call [them] *cocoliztli*” and that they had never known any such disease before.<sup>612</sup> The response explained that “in ancient times, they lived a long time and that they did not die except when old. And now in the

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<sup>610</sup> Ibid, Vol. 6, “Relación de Las Cuatro Villas” 206.

<sup>611</sup> Ibid, Vol. 6, “Relación de Las Cuatro Villas” 197.

<sup>612</sup> Ibid, Vol. 7, “Relación de Ocopetlaucan” 84.

present, since the arrival of the *Marquez* [Hernando Cortés] in this land, they have lived with the affliction of *cocoliztle* from which a great many of them die.”<sup>613</sup> The response explained that the epidemics were a colonial phenomenon. The same explanation of timing is given in the response from the town of Culhuacan. The authors of the RG from Culhuacan agreed that disease arrived only after the Spaniards came. The author recorded that “after being conquered...they had sicknesses, especially pestilences, that they call *cocoliztle*, from which they have died.”<sup>614</sup> These two responses assert that the Europeans had brought not only war but also accidental biological weapons. The Spaniards never intentionally spread diseases. However, the deaths facilitated their efforts to conquer and control New Spain.

The RG respondents, writing in the late sixteenth century, compared the first epidemic with subsequent waves of disease. The interpreter and scribe for Huaxtepeque clearly recorded the words of the elders about the cause of the widespread disease when writing "they understand that the Spaniards brought these sicknesses, because after they [the Spaniards] arrived they [the people of Huaxtepeque] have had them."<sup>615</sup> Another answer, from the Mines of Taxco, presented another interesting description of the chronological sequence. The response designated two main periods of general *cocoliztles*.<sup>616</sup> The text explained that “the first was in the year of 1544 and 45, and the second in the last years of 1576 and 77, and they have had several others after the arrival of Spaniards in this land.”<sup>617</sup> These accounts of the timing of diseases squarely places the

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<sup>613</sup> Ibid, Vol. 7, “Relación de Ocopetlaucan” 87.

<sup>614</sup> Ibid, Vol. 7, “Relación de Culhuacan” 33.

<sup>615</sup> Ibid, Vol. 6, “Relación de Huaxtepeque ” 206.

<sup>616</sup> Ibid, Vol. 7, “Relación de Minas de Tasco” 115.

<sup>617</sup> Ibid, Vol. 7, “Relación de Minas de Tasco” 115.

appearance of *cocoliztli* after the arrival of Spaniards. Of the responses containing Nahuatl disease terminology, not a single one claims that *cocoliztles* were prevalent before interactions with Europeans. The consensus of many community leaders who responded to the questionnaires independently demonstrates that indigenous people conceived of epidemics as a feature of colonial times, something that the Spaniards brought with them.

Many of the RG responses appear much more ambivalent about the causes of disease, even if they acknowledge the timing. The authors of the RG of Atlatlahuca were the governor, the *alcaldes*, and “many more Indians, *principales*, and *macehuales*”<sup>618</sup> and the translator Juan Lorenzo. The respondents state that in pre-contact times “the town had a greater population of Indians and people than at the present time...they do not know the cause of the great deaths of many people, others now attribute it to the three years of great mortality due to *cocolizte* and only two hundred Indians survived.”<sup>619</sup> The authors seem to assume the voice of the indigenous leaders when they write “they see through experience that people have a shorter life span than during their time of infidelity [before they became Christian], and they do not know the cause of it.”<sup>620</sup> Native elites were practiced in dealing with colonial administrators. They formulated responses that avoided explicitly blaming the Spaniards, but implicitly associated the colonial regime with poor health.

Other responders, such as those from Citlaltomahua y Anecuilco, exhibited an obvious Spanish bias and presented the locals in a very poor light. They described the indigenous population as “very malicious and of bad customs, disloyal and of little faith or truth, low and

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<sup>618</sup> Ibid, Vol. 6, “Relación de Atlatlahuca” 43.

<sup>619</sup> Ibid, Vol. 6, “Relación de Atlatlahuca” 46.

<sup>620</sup> Ibid, Vol. 6, “Relación de Atlatlahuca” 49.

vile thought.”<sup>621</sup> Nonetheless, the authors acknowledged that depopulation occurred after the arrival of the Spaniards. Resorting to Spanish terminology, they wrote “every year many more die from diverse diseases: measles and smallpox, and other very contagious diseases of different pustules.”<sup>622</sup> Although the authors claimed to have consulted with an “old Indian” they did not use the word *cocoliztli* to refer to the diseases and made little mention of the timing of outbreaks. Most other responses, in particular those who claimed to have conversed with indigenous elders, utilized Nahuatl terms for disease. In using terms referring to pestilential diseases such as *cocoliztli*, *tlacocoliztli*, *matlazahuatl*, or *çahuatl*, the responders acknowledged indigenous knowledge about diseases in their communities.

### **Nahua Concepts and Causes of Disease used in Colonial Texts**

The vocabulary used to describe disease also revealed the extent to which local officials relied on indigenous informants. The Nahuatl terminology sprinkled in RG’s from central Mexico, where the majority of Nahuatl-speakers in New Spain lived, reveal that indigenous people actively participated in the RG process. The Spanish text of the RG simply leaves many disease terms in Nahuatl, indicating that indigenous people dictated that part of the text, at least. A recent essay by José Pardo-Tomás acknowledges the participation of indigenous authorities in the creation of the RG and identifies several explanations of illness with Mesoamerican origins.<sup>623</sup> Pardo-Tomás reads each RG carefully, recovering indigenous voices from those in which the respondents are specified. I adopt a similar approach by identifying indigenous disease

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<sup>621</sup> Ibid, Vol. 6, “Relación de Citlaltomahua y Anecuilco” 113.

<sup>622</sup> Ibid, Vol. 6, “Relación de Citlaltomahua y Anecuilco” 112.

<sup>623</sup> José Pardo-Tomás, “Antiguamente vivían más sanos que ahora”: Explanations of Native Mortality in the *Relaciones Geográficas de Indias*” in *Medical Cultures of the Early Modern Spanish Empire* John Slater, et. al. eds. Burlington VT.: Ashgate, 2014, 46.

terminology in the responses. The adoption of indigenous terms confirmed that Spaniards recognized indigenous authority, or at least accepted that Spanish terms were inadequate to describe the epidemics.

Although Spanish officials who collected information for the RG knew that the Council of Indies and the Crown were their intended audience, they retained many of the Nahuatl words that had been used by respondents. The presence of Nahuatl words in responses to the RG not only suggests that indigenous people participated in the process, it also indicates that Spanish officials accepted indigenous knowledge about disease.

#### *Significance of Loanwords in Colonial Period: Cocoliztli and Viruelas*

The use of Nahuatl terms in the RG in explanations of demographic decline demonstrates that Spaniards viewed the epidemics as different than their previous disease experiences. In the response from the village of Tepuztlan located in Cuatro Villas, the introductory text explains that the questions were answered in the “*lengua mexicana*” or Nahuatl, which was then translated by an interpreter. Although a number of Spanish officials participated in the process, the RG named two *principales* or prominent men within the community, Dionisio Cihuatepanecatli and Baltasar Martínez, as participants, as well as several *macehualtin* or commoners. The terms that the translator leaves in Nahuatl gives insight into indigenous concepts that were not easily translated into European languages. For example, the Spanish text borrowed the Nahuatl term for “commoner”, *macehualli*. In his discussion of the terminology of social differentiation in colonial Mexico, Lockhart wrote “whether because of the specific duties or the *macehualli*, or because of lack in Spanish of any frequently used neutral term for commoner, or because of their general inclination to use other than the standard Spanish terminology for indigenous social distinctions, the Spaniards borrowed the Nahuatl word (as

*macehual*) rather than using a Spanish one.”<sup>624</sup> Those who recorded the RG also borrowed Nahuatl terminology to describe the health and illnesses of the regions of New Spain. There was no lack of frequently used terms for the epidemic diseases, *pestilencia*, *viruelas*, *bubas*, and *sarampion*, to name just a few. The general inclination to use non-Spanish terms speaks to the unique public health disaster in the colonies and the fact that it largely affected indigenous communities.

In the conclusion of his work on the Nahua, Lockhart explained that “the epidemic of the later 1540’s coincides squarely with the break between Stages 1 and 2 of the contact between Nahuatl and Spanish.” Whereas Stage 1 exhibited little adoption of Spanish loanwords into Nahuatl, Stage 2 was characterized by an steady influx of loan words.<sup>625</sup> Thus it is significant that Spaniards and Spanish texts borrowed Nahuatl terms during a period when Nahuatl texts were adopting a great number of Spanish loanwords.<sup>626</sup> At the same time, Nahua chose not to borrow Spanish terms for disease, despite the fact that Lockhart showed how nouns were the part of speech adopted most quickly into Nahuatl, writing that nouns were the “part of Spanish culture that the Nahuas had reached out to understand, incorporate, and make their own.”<sup>627</sup> In the quantitative data from Karttunen and Lockhart, the percentage of disease loan words from Spanish to Nahuatl never rose above 0.4% from 1550 forward.<sup>628</sup> The cultural and linguistic pattern in which Nahua writers used increasingly more Spanish words from 1545 onward did not

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<sup>624</sup> Lockhart, *Nahuas*, 96.

<sup>625</sup> *Ibid*, 433.

<sup>626</sup> *Ibid*, 284-304.

<sup>627</sup> *Ibid*, 285.

<sup>628</sup> Frances Karttunen and James Lockhart, *Nahuatl in the Middle Years: Language Contact Phenomena in Texts of the Colonial Period*. University of California Publications in Linguistics 85. Berkeley and Los Angeles; University of California Press, 1976, 17.



apply to terms for diseases. Why did Nahuas and even Spaniards continue to use Nahuatl terms for diseases when other nouns for new flora and fauna and introduced objects and concepts freely flowed into Nahuatl? I think that the lack of Spanish loanwords for diseases in Nahuatl, coupled with the Spanish use of Nahuatl terms in the RG, reveal the unique and bewildering nature of the epidemics. By relying on Nahuatl terms, Spaniards obviously concluded that the epidemics were unique to indigenous communities.

Nahua respondents to the RG used several Nahuatl terms to explain the diseases affecting their communities. The Tepuztlan response employed the word *matlaltotonqui* which the interpreter translated as "typhus", and the second *matlalzauatl*, translated as "measles".<sup>629</sup> The various authors of the response averred that they had never known of these diseases in pre-conquest times but now "they are afflicted with a thousand different types of disease."<sup>630</sup> The response mentioned a disease called *tlacacocolizte*, a term translated as "fevers," that afflicted people in ancient times. The second half of this term, *cocoliztli*, is found in many other responses from the RG. The term *cocoliztli*, as noted in chapter 1, had a broad semantic range referring to any type of disease, often used in Nahuatl-language records referring to epidemics.

The RG response from the village of Iguala contains a compound of Nahuatl and Spanish descriptions of the diseases present in the region. The responders from Iguala included Spanish officials and five doctors. In the text, the diseases were called *pestilencias cocoliztes*. Yet, in other distinct parts of Iguala, the responses relied on an indigenous person or principal elder. One indigenous person, Moreno, testified that population loss was due, among other things, to

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<sup>629</sup> Acuña, *Relaciones Geográficas*. 6, "Relación de Tepuztlan" 190-1 ...*tabardete* and *sarampión*.

<sup>630</sup> *Ibid*, Vol. 6, "Relación de Tepuztlan" 190-1.

*cocoliztes*.<sup>631</sup> Moreno's statement agreed with the answer from the smaller town of Mayanala, which also listed one of the causes of decline as *cocoliztes*.

Responses from individual towns used only the Nahuatl word, whereas the introduction to Texcoco's response uses a two-part Spanish-Nahuatl word to name the epidemics. The Texcoco historian, Juan Bautista de Pomar (son of a Nahua mother and Spanish father), described the unique nature of the epidemics in New Spain. On the afflictions in Texcoco, Pomar noted that "all sicknesses known by the Spaniards...have treatments and are cured accordingly, and medicines and the usual remedies were applied that are valid today. Yet only the *cocoliztles* have no remedy."<sup>632</sup> The affliction of *cocoliztli*, in contrast to *viruelas*, was new to Spanish speakers and therefore merited its Nahuatl name. The adoption of the indigenous term *cocoliztli* suggests that translators could not adequately translate the indigenous experience of disease using the Spanish language. The use of Nahuatl words throughout the RG from central Mexico confirms the participation of indigenous people in the response to the royal questionnaire.

All the RG responses from central Mexico reported that people used to live longer, and they lived in a much healthier manner. But the reasons for these changes differed; respondents offered four causes for shorter life spans. Some referred to being overworked, others to the movement of settlements, and still others to specific colonial changes. Almost all referred to the disastrous impact of disease. The variety of reasons can be attributed to the fact that the RG responses represent multiple authors and voices.

*Colonial Changes in Customs: Diet, Work, Clothing, and Beliefs*

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<sup>631</sup> Ibid, Vol. 6, "Relación de Iguala" 341.

<sup>632</sup> Ibid, Vol. 8, "Relación de Tezcoco" 103.

The conquest brought about changes in diet, dress, belief systems, and the manner and location of daily labor for the indigenous inhabitants of New Spain. The RG shows that respondents often attributed transformations in health to these changes. Indigenous people mourned the loss of their traditional diet. A response from Tequixquiac claimed that indigenous bodies suffered from being covered with cloth and consuming food introduced by Spaniards. They wrote that “The natives want to say that...the food was lighter than what they eat now... because they now have to eat beef, pork, and meats, and drink wine and sleep under a roof, and all the rest that has made them more delicate and less industrious than they used to be... naturally, [this] shortens their lives and many succumb to contagious diseases from which they die.”<sup>633</sup> To the responders, the changes “naturally” resulted in a shorter life span; by comparison, in ancient times “they ate very little, they ate wild foods such as herbs and the aforementioned insects and before they went around naked.”<sup>634</sup>

In the Texcoco RG, Pomar claimed that the customs of indigenous communities were worthy of studying, especially in relation to the epidemics. He wrote that *los curiosos* or curious people (i.e., observant or educated people), including “many Spaniards who were learned and skilled in Medicine, and many Indians themselves have made many investigations of their life and customs in the time of their infidelity.”<sup>635</sup> Despite this research, Pomar concluded that no one had yet explained why so many died from disease, but he argued that the excessive demands of *repartimiento* labor (a system of coerced draft labor inaugurated by Viceroy Luiz de Velasco) was the cause of indigenous peoples' weakened bodies. By the 1550's *encomienda* labor (a grant

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<sup>633</sup> Ibid, Vol. 7, “Relación de Tequixquiac” 200.

<sup>634</sup> Acuña, *Relaciones Geográficas*, Vol. 7 Ocopetlayucan, 87.

<sup>635</sup> Acuña, *Relaciones Geográficas* Vol. 8, “Relación de Tezcoco ” 99.

from the Spanish King of tribute and indigenous labor to a Spaniard, the holder of such grants were called *encomenderos*) had ceased to satisfy enough Spaniards, largely due to indigenous demographic decline and increased Spanish immigration. Officials at first adjusted the amount of tribute goods and eventually replaced it with quotas of cash and maize. Eventually, indigenous people no longer were forced to meet the labor demands of an *encomendero*, though they were still required to participate in *repartimiento* labor drafts.

The Texcoco RG continued that the hard work expected from indigenous communities was the true cause of widespread death, because indigenous people were "treated worse than if they were slaves."<sup>636</sup> Pomar claimed that the cruel labor system had taken a terrible toll not only on indigenous bodies but also on their spirits. He reasoned that:

with hunger and exhaustion their bodies are weakened and consumed [so] that whatever mild illness hits them, it is enough to kill them, and with the burden of such weakness, plus anxiety and fatigue of the spirit, born from the lack of freedom that God gave them, despite the fact that Your Majesty has decreed in law and royal orders the better treatment and governing of them, it is confirmed that good bodily health cannot prevail over the discontented soul.<sup>637</sup>

Pomar rightly acknowledged the connection between happiness and health, and that it was almost impossible to maintain healthy bodies when people were not healthy, concluding that such an oppressed people could not possibly "show any sign of neither happiness nor contentment."<sup>638</sup> In this explanation, Pomar showed a unique understanding of Nahuatl attempts to explain how disease and afflictions assailed indigenous communities. The RG from Coatepeque made a similar point, explaining that people used to be much healthier, and that according to the elders, they followed hearty lifestyles of hard work, but that "[now] they do not understand the

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<sup>636</sup> Acuña, *Relaciones Geográficas* Vol. 8, "Relación de Tezcoco " 100.

<sup>637</sup> Acuña, *Relaciones Geográficas* Vol. 8, "Relación de Tezcoco " 101.

<sup>638</sup> Acuña, *Relaciones Geográficas* Vol. 8, "Relación de Tezcoco " 100.

cause [of the loss of life] except that they are scared."<sup>639</sup> The authors seem to refer to fear as both a cause and effect of the epidemics and loss of life, referring to the illness of *susto* discussed in chapter 1, again confirming how indigenous people participated in answering the questionnaire. Spaniards may not have recognized fright as a cause of illness.

### *Spanish Frameworks of Health and Illness*

Spanish respondents to the RG inevitably indicated religious differences as a major impediment to a healthy lifestyle. When asked why there were so few Indians, the respondent from Ichcateupan explained that "the cause must be the sins of their ancestors..."<sup>640</sup> Similarly, the responder from Tetela y Hueyapan opined that the cause of death of so many "is a secret of God, that they have been served this way, I don't feel there is any other better answer to satisfy that question."<sup>641</sup> These types of Spanish responses that attribute the disease to God sidestep the idea that the Spaniards themselves introduced the disease.

Some respondents refrained from mentioning the Christian God and instead pointed to the native peoples themselves as the cause of their own suffering. The local official for the towns of Citlaltomahua and Anecuilco, most likely the appointed scribe Francisco de Villafuerte, stated that it was very common for people to die from any small illness and that indigenous people possessed no remedies, and that people with any type of sickness, from fevers to contagious epidemics, would bathe to heal themselves. According to him, then, the baths were "the cause that they [the indigenous inhabitants] live less than the others in other provinces."<sup>642</sup> When

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<sup>639</sup> Acuña, *Relaciones Geográficas* Vol. 6, "Relación de Coatepeque " 295.

<sup>640</sup> Ibid, Vol. 6, "Relación de Ichcateupan" 325.

<sup>641</sup> Ibid, Vol. 6, "Relación de Tetela y Hueyapan" 267.

<sup>642</sup> Ibid, Vol. 6, "Relación de Citlaltomahua y Anecuilco" 118

people had any fever, he wrote, “they customarily go to the river to bathe and with the heat of the fever and the bath that they take, they perish from shock, or it gives them sudden back pains, and later they die without knowing the [cause of the] misfortune.”<sup>643</sup>

### *Bathing as Cause and Cure of Illness*

In contrast to Spanish beliefs in the danger of bathing when sick, responders from Ocotpetlayucan attributed changes in bathing habits to the cause of ill health. People used to live more healthily before the arrival of Spaniards, they wrote, but now they were less healthy because “they were accustomed to bathing in the middle of the night and now they do not bathe in this way.”<sup>644</sup> Thus, indigenous respondents challenged the link between indigenous bathing practices and illness forged in the text by the Spanish authors. Nahuas firmly believed in the healing power of the steam bath, as discussed in chapter 1. Before Spaniards discouraged the practice, they bathed several times a day. The response from the village of Huaxtepeque elaborates on Nahua bathing customs before the arrival of Europeans; four elders stated that in olden times, “in general, everyone would bathe at the hour they woke up, at midday, and at night...[and when they got headaches] to get rid of the headache they would return to bathe.”<sup>645</sup> The response from the four elders noted that people would ordinarily bathe three times a day, and that people would also bathe to remedy various illnesses.

Across central Mexico respondents identified bathing as a habit common among indigenous peoples, and commented on its relation to health. Officials reported widespread death and its connection to bathing from the towns near Acapulco on the Pacific coast to the province

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<sup>643</sup> Ibid, Vol. 6, “Relación de Citlaltomahua y Anecuilco” 118.

<sup>644</sup> Acuña, *Relaciones Geográficas* Vol. 7, “Relación de Ocotpetlayucan” 87.

<sup>645</sup> Acuña, *Relaciones Geográficas* Vol. 6, “Relación de Huaxtepeque ” 205.

of Huexutla on the opposite Atlantic coast (south of Tampico).<sup>646</sup> Opinions on the salubrious nature of daily bathing separated the colonizers from their subjects. As explored in chapter one, many colonial sources describe indigenous bathing practices. A recent essay by José Pardo-Tomás in the anthology *Medical Cultures of the Early Modern Spanish Empire* explores some differences between Spanish and indigenous practices of bathing, bloodletting, and purgatives. He uses examples from the RG to show that the "Spanish support of bloodletting and opposition to bathing was explicit."<sup>647</sup> Spanish attempts to link indigenous bathing practices to the spread of disease contradicted the voices of indigenous responders who favored healing with bathing.

The RG from Tequixquiac also discussed bathing as the reason so many people became sick. The corregidor of the town, Alonso de Galdo, with assistance from a scribe, consulted with the most ancient elders of the towns in his charge. But the RG for Tequixquiac has a distinctly Spanish flavor, declaring that the indigenous population was "always sick because...normally they would bathe in hot baths and then later they got into cold water, and in this way, they became paralyzed and die."<sup>648</sup> In discussing the nature of diseases affecting native peoples, the author made a distinction between afflictions that occurred before and after Spaniards lived in Tequixquiac. He concluded, "presently it is almost the same, except there are many others [sicknesses] like those that Spaniards get...that for our great sins, God has permitted that they continue since the past year of seventy-six until now without cease."<sup>649</sup> Thus the Spanish official blamed bathing practices and sin for rampant disease, including the great epidemic of 1576.

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<sup>646</sup> Gerhard, *Historical Geography*. 39 and 145.

<sup>647</sup> Pardo-Tomás, "Antiguamente" 65.

<sup>648</sup> Acuña, *Relaciones Geográficas* Vol. 7, "Relación de Tequixquiac " 194 *tullir*.

<sup>649</sup> Acuña, *Relaciones Geográficas* Vol. 7, "Relación de Tequixquiac " 193.



The RG from the province of Huexutla described the same loss of indigenous peoples. The use of Nahuatl terms throughout the response reinforces the active participation of the indigenous leaders, including one *indio* named Martín Vázquez, identified in the concluding paragraph of the RG.<sup>650</sup> Despite their participation, the section on cures portrayed bathing as a cause of poor health. It explained that for many types of illnesses the "cure they have is one called *temazacal*, where they sweat, and it is like a bath."<sup>651</sup> The use of the word "they" in this line, instead of "we," confirms that a Spaniard is talking. Here the scribe or author of the RG uses the Nahuatl word for the sweat bath, the *temazcalli* discussed in chapter 1. As noted, daily visits to the bath houses remained an integral part of indigenous healing through the colonial period (fig. 13).

Another RG came from Temazacaltepeque, a town obviously famous for its sweat baths since its name includes the Nahuatl word for bathhouse. The authors claimed that the people had always been healthy except for the past year, when *cocoliztle* or pestilence killed half of the inhabitants. The people of the town did not lack a remedy, as the text explained "they cure themselves with sweats in the *temazcales* that are baths and now they are accustomed to bleeding."<sup>652</sup> Apparently, they had adopted Spanish methods of curing alongside their traditional reliance on the sweat bath.

### **Euro-Hippocratic Aspects of the Survey Responses**

Spanish officials who participated in the RG surveys explained topics related to health and the loss of life in indigenous communities in terms of European medical and cultural

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<sup>650</sup> Acuña, *Relaciones Geográficas* Vol. 6, "Relación de Huexutla" 247.

<sup>651</sup> Acuña, *Relaciones Geográficas* Vol. 6, "Relación de Huexutla" 251.

<sup>652</sup> Acuña, *Relaciones Geográficas* Vol. 7, "Relación de Temazacaltepeque" 146.

categories in other words, in words that their European audience would easily understand. In their assessments, “knowledge of the relationship between climate and disease became as important as geologic or agricultural assessments to furthering colonization.”<sup>653</sup> Almost all the RG responses provided information on indigenous herbal knowledge, albeit many scribes translated the complicated plant names into Spanish using the simple terms “roots and herbs.” The writers of the RG for the town of Chicoaloapan in Coatepec explained “the surrounding region is healthy and of good climate. The diseases that affected natives in the time of their infidelity, according to their elders, were fevers, dysentery, and eye problems for which they used roots and herbs to cure...there were no pustules, measles, typhus, *cocoliztli* or other similar maladies before the arrival of Spaniards.”<sup>654</sup> The colonial project depended on the ability to collect health related information in order to exploit the labor of healthy indigenous people. The RG reports presented this information in a way that was comprehensible to Europeans.

As the authors of the RG questions and many of the RG responses, Spaniards sought to understand the epidemics according to their own methods and worldview. Although both Nahuas and Spaniards participated in the project, few scholars have worked to bring out the different voices and opinions found in the RG. Spanish ideas about the cause of disease influenced many responses to the surveys. Not only were the responses filtered through the voice of a Spanish official, but European medical theories guided the analysis of Spanish authors.

The order of questions posed by the RG questionnaires reflects what Spaniards valued most about their overseas possessions. The third question inquired about the natural aspects of the territory, the fourth about the fertility of the land, and the fifth about its inhabitants. The

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<sup>653</sup> Linda Nash, *Inescapable Ecologies*. Berkeley and Los Angeles: University of California Press. 2007, 32.

<sup>654</sup> Acuña, *Relaciones Geográficas*, Vol. 6, “Relación de Coatepec y su partido” 175.

Spanish authors were primarily interested in the land's qualities and how they would influence the health of the people.

*The Hippocratic Evaluation of Airs and Waters*

As discussed in chapter 2, Europeans living in the early modern period generally ascribed to Hippocratic-Galenic medical theories, if they ascribed to any theories at all. People emigrating to New Spain from Spain carried with them folk beliefs about health and healing, mixed with medical theories sanctioned by academic institutions. Jorge Cañizares-Esguerra explains that “science used by Spanish American intellectuals came wrapped in the ancient Mediterranean idioms of Hippocratic-Galenic physiology and astrology.”<sup>655</sup>

The Hippocratic treatise *On Airs, Waters, and Places* made an association between health and environment. It became the prevailing ideology to understand difference in the salubriousness of locales in early modern Europe and beyond.<sup>656</sup> In his study of European medical sources, Andrew Wear states that the treatise provided a strong medical base that tied ideas about human well-being to nature in the location where they resided. Wear writes that the Hippocratic treatise “acted in Europe as a conscious or unconscious template for views on the relationships between places, health, disease, and the physical and mental constitutional nature of people and nations up to the early twentieth century.”<sup>657</sup> It is likely that Spanish and Creole officials in the Americas and other Spaniards who participated in the RG project relied on the

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<sup>655</sup> Jorge Cañizares-Esguerra. *Nature, Empire, and Nation: Explorations of the History of Science in the Iberian World*. Stanford: Stanford University Press, 2006. 67.

<sup>656</sup> *The Genuine Works of Hippocrates* (New York: William Wood and Company, 1891, Francis Adams trans. *On Airs, Waters, and Places*. 2009 Electronic edition location, 61.

<sup>657</sup> Andrew Wear, “Place, Health, and Disease: The *Airs, Waters, Places* Tradition in Early Modern England and North America.” *Journal of Medieval and Early Modern Studies*, 38:3 Fall 2008, Duke University Press, 443. Wear reflects on authors writing in 1576 and 1586 located in Europe and Northern America.

Hippocratic system of diagnosis to understand their new colonies because the work was available in Spain by the year 1569.<sup>658</sup>

*On Airs, Waters, and Places* detailed a system of environmental determinism.

Hippocrates believed that the climate, seasons, waters, and foods of a location directly impacted the character and health of people living in that place. Hippocrates wrote:

Cities that are exposed to winds between the summer and the winter risings of the sun, and those the opposite to them have the following characteristics...The persons of the inhabitants are, for the most part, well colored and blooming, unless some disease counteract. The inhabitants have clear voices, and in temper and intellect are superior to those which are exposed to the north, and all the productions of the country in like manner are better.”<sup>659</sup>

For Spanish and Creole elites, the physical nature of the land was directly connected to the life and health of the indigenous people.

Hippocrates explained that a stranger to a new place must base his analysis of local healthiness on several factors. Primarily he should consider the seasons of the year and what effects they may have on each locality. Second, he must consider the winds, including their temperature and direction. The quality of the waters must also be inspected to determine taste and weight. Finally, a stranger must investigate how local people live. The stranger should consider “their pursuits, whether, they are fond of drinking and eating to excess, and given to indolence, or are fond of exercise and labor, and not give to excess in eating and drinking.”<sup>660</sup>

Once the newcomer becomes familiar with all these factors he could then grapple with the

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<sup>658</sup> Hippocrates, *Commentaria in libros Hippocratis De ratione victus in morbis acutis* Francisco Vallés. Complutense University of Madrid, 1569.

<sup>659</sup> Hippocrates, *Airs*, 61.

<sup>660</sup> *Ibid*, 9.

diseases peculiar to the place, or the particular nature of common diseases.<sup>661</sup> The association between disease and place in Hippocrates is evident in the questions posed by the RG. In several RG reports, information on the natural environment and disease is given together because the question conflated the two issues. In the minds of many Spaniards, at least, the issues were indeed connected.

### *Colonial Queries influenced by Hippocratic Hierarchies*

Hippocrates's primary environmental concerns were airs and waters. In the Hippocratic tradition, the airs or winds, their temperatures, and their direction of origin determined the health of a place. Hippocrates wrote that the races in Europe differed so widely because of the "changes of the seasons, which are very great and frequent, and because the heat is strong, the winters severe, and there are frequent rains, and again protracted droughts, from which many and diversified changes are induced."<sup>662</sup> The RG inquired about the climate in question three: "State in general the climate and quality of said province or district; cold or hot, dry or damp...prevailing winds, whether violent, and from what quarter and at what seasons of the year."<sup>663</sup> The RG inquired about the characteristics of the land in order to determine its value and suitability for healthy settlement. Question seventeen reads: "State whether the town is situated in a healthful or unhealthful place and if unhealthful, the cause for this if it can be learned; note the kinds of illness that are prevalent and the remedies employed for curing them."<sup>664</sup> This and other questions of the RG are strikingly similar to the Hippocratic line of inquiry. An earlier

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<sup>661</sup> Hippocrates, *Airs*, 16.

<sup>662</sup> *Ibid.*, 326.

<sup>663</sup> Acuña, *Relaciones Geográficas*. Vol. 6, Introduction, 18.

<sup>664</sup> *Ibid.*

question, number five, asks the local official to “state what is the character and condition of their [the people's] intelligence, inclinations and modes of life.”<sup>665</sup> The responses to this question, which I examine in the next several pages, also reveal the importance of the Hippocratic system of thinking or template for describing health in colonial Mexico. The fact that almost all the responses to this question refer in some way to the winds, airs, or other physical characteristics of the place supports the Hippocratic cultural template. Another portion of the cultural concern related to health found in the RG focused on how the quality of the air influenced the nature and health of human beings.

#### *Pestilent Vapors, Menacing Mountains, and Lethal Rains*

The authors of the RG were asked to describe the winds of their locality in connection to the health of the region. In the opening response, the authors of the Iguala RG stated that their answers explained the “climates, influences, good or bad temperaments of the lands that cause bad vapors, that corrupt the airs, that cause pestilence, *cocolizte*.”<sup>666</sup> The responders linked the nature of the air with the occurrence of disease. Many responses made a similar connection. The authors of the RG from Atlitlalaquia wrote that many (but not all) natives “have very low inclinations ...according to the climate and the temperament of the lands in which they live.”<sup>667</sup> According to the officials of Atlitlalaquia, the elders were very industrious because of the “disposition of the sky and temperament of the earth, throughout the province they were very productive, and the natives were excellent workers.”<sup>668</sup> According to the Hippocratic tradition,

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<sup>665</sup> Acuña, *Relaciones Geográficas*, Vol. 6, Introduction, 17.

<sup>666</sup> Acuña, *Relaciones Geográficas*, Vol. 6, “Relación de Iguala” 338.

<sup>667</sup> Acuña, *Relaciones Geográficas*, Vol. 6, “Relación de Atlitlalaquia” 60.

<sup>668</sup> Acuña, *Relaciones Geográficas*, Vol. 6, “Relación de Atlitlalaquia” 58.

northern winds are the coldest and the healthiest for humans. It is no coincidence, then, that the RG authors from Atlitlalaquia stated that the “regular winds...are northern, and because of this the native Indians of this jurisdiction are very robust and hard-working, and are always healthy.”<sup>669</sup> The towns of the district were very well populated before the arrival of the Spaniards because of the “accommodating disposition of the land.”<sup>670</sup> However, by the time the report was written, the population had declined due to disease. The authors attributed the problem of illness to “idleness and laziness of the natives for not working at the same level that they were accustomed to in the time of infidelity.”<sup>671</sup> This perspective, probably of a Spaniard, affirmed that changes in local customs had contributed to poor health.

Many RG reports mentioned the effect of local winds on the health of the people. The authors of the Citlaltomahua y Anecuilco report praised the climate of the town as “beautiful and of good airs, because the strongest wind in this land is the west wind, air very mild and healthy.”<sup>672</sup> There were times when destructive winds would come from the south or southeast and would destroy people's houses. But the north wind was the most damaging because it “very much distempered and corrupted the bodies of the natives and accordingly they would become ill of fevers and other pains, and many died because of the entrance of such cold.”<sup>673</sup> In Tepeapulco the north and the east winds would do “damage to the natives and their fields because they blow all year long.”<sup>674</sup> The village of Chimalhuacan Atoyac was described as humid and mild, because

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<sup>669</sup> Acuña, *Relaciones Geográficas*, Vol. 6, “Relación de Atlitlalaquia” 59.

<sup>670</sup> Acuña, *Relaciones Geográficas*, Vol. 6, “Relación de Atlitlalaquia” 60.

<sup>671</sup> *Ibid.*

<sup>672</sup> Acuña, *Relaciones Geográficas*, Vol. 6, “Relación de Citlaltomahua y Anecuilco” 113.

<sup>673</sup> *Ibid.*

<sup>674</sup> Acuña, *Relaciones Geográficas*, Vol. 6, “Relación de Tepeapulco” 171.

of the waters and lakes in the region, and the winds were healthy when they were northeastern. It was the “southern wind that is hurtful in this town, because it is hot and humid, and it carries various fever sicknesses, colds, and chest colds.”<sup>675</sup> The RG creators insisted that neither the town of Huexutla nor the region was “healthy because it is hot land...cold north wind blows and upsets men’s bodies, and causes a lot of fever sicknesses. The natives bathe themselves to heal their sickness but in that way many die.”<sup>676</sup> It was only when the east wind prevailed was it “healthy and good for the natives.”<sup>677</sup> The town had a very mild summer but the hot or the cold winds would cause sickness, according to the authors.

East winds were not always mentioned favorably in the RG, either. For example, in Ichcateupan only the eastern facing section of town was sick, because the “town is uncovered facing east this must make them sick because all other parts are sheltered by the surrounding mountains.”<sup>678</sup> In the town of San Juan Teotihuacan, the authors of the RG described the region as cold but humid: “it is located between springs of water and ravines, and it is all springs of water...the south wind prevails and in March with great violence (it is sick for the natives) then the north wind prevails, and it does not do harm to the natives because it is temperate.”<sup>679</sup>

Natural landmarks such as mountains played a significant role in formulations about health in the RG. Many authors related the climate, whether hot, cold, sickly, or healthy, to the mountains and their influence. All the inhabitants of Villa de Tepuztlan were “sick because it is

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<sup>675</sup> Acuña, *Relaciones Geográficas*, Vol. 6, “Relación de Coatepec y su partido” 157.

<sup>676</sup> Acuña, *Relaciones*, Vol. 6, “Relación de Huexutla” 250-251.

<sup>677</sup> Acuña, *Relaciones*, Vol. 6, “Relación de Huexutla” 246.

<sup>678</sup> Acuña, *Relaciones*, Vol. 6, “Relación de Ichcateupan” 296.

<sup>679</sup> Acuña, *Relaciones*, Vol. 7, “Relación de Tequizistlan” 233.



located in a valley between mountains...They say that because the mountains keep so much water it is very humid and misty.”<sup>680</sup> Again, the town of Huexutla had a “very clouded sky with a lot of fog because it is humid and mountainous land, in this way it is not healthy land.”<sup>681</sup> Conversely, the town of Titultepec was healthy because it was “located high on the mountainside and it is washed by the airs.”<sup>682</sup> The responders from Ocopetlayucan listed the airs, winds, and the natural landscape that affected their health. The authors began with a positive assessment of the lands under their charge, which were neither hot nor cold, but temperate, with access to springs and stream--although the land was dry, located high on the hillside, above these sources of water. The town had “normal” winds that only caused illnesses such as “chest colds, runny noses, fevers, and others, from which some of them die or none at all.”<sup>683</sup> These illnesses were attributed to winds but the humidity of the nighttime and the early morning could also threaten health. The authors of the RG from Ocopetlayucan did not list diseases such as *cocoliztli* or *viruela*, highlighting the general health of the region that was perhaps free of epidemics at that time.

In the Hippocratic tradition, humidity was seen as a very serious cause of illness, and anything from smallpox to physical disabilities could be attributed to the humidity of the environment. Cañizares-Esguerra explains that the “purported humidity of America was a claim with heavy ideological baggage. Scholarship had associated masculinity with warm, dry environments, and femininity with moist, cold ones. America posed the threat of impending

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<sup>680</sup> Acuña, *Relaciones*, Vol. 6, “Relación de Las Cuatro Villas” 190.

<sup>681</sup> Acuña, *Relaciones*, Vol. 6, “Relación de Huexutla” 254.

<sup>682</sup> Acuña, *Relaciones*, Vol. 6, “Relación de Ichcateupan” 329.

<sup>683</sup> Acuña, *Relaciones*, Vol. 6, “Relación de Ocopetlayucan” 83.

sexual transformations for colonists.”<sup>684</sup> Colonists viewed humidity negatively and yet they did not venture to feminize indigenous people.

In the RG from Ocopetlayucan common illnesses did not afflict the Spaniards, although they may have feared the overpowering and feminizing force of humidity. Humidity may have been viewed as a feminizing force because it arrived only at night. During the day, the town did not suffer from any unhealthy excess but during the nighttime humidity changed the climate. In early modern Europe, nighttime, darkness, and the unknown were commonly associated with dangerous, sometimes feminine forces. Although the authors do not make an explicit connection between gender and humidity, their responses are suggestive. The authors wrote that the humidity was strongest at night and the early morning, and that “the cause is the volcano [which was located just north of the city] and the vapors it gives off, and the mountains with snow and fog.”<sup>685</sup> The responders from Ocopetlayucan used humidity during the night to refer to the “feminizing” features of the landscape that surrounded them.

Waters also played a significant role in descriptions of disease in the RG. The towns of Citlaltomahua and Anecuilco experienced severe rains during the time of the north wind. During the rest of the year the land was healthy, but when “the north wind prevails...the rains come and because of these many natives die.”<sup>686</sup> In the RG, the variability and quality of water sources was considered to have a great effect on the health of a region. The town of Atlatlahuca relied on several natural fountains, but during the spring months the floods “return and remake the land

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<sup>684</sup> Cañizares-Esguerra, *Nature, Empire, and Nation*, 69. See Londa Schiebinger *The Mind has no Sex? Women in the origins of Modern Science*, Cambridge, 1989.

<sup>685</sup> Acuña, *Relaciones*, Vol. 6, “Relación de Ocopetlayucan” 83.

<sup>686</sup> Acuña, *Relaciones Geográficas*, Vol. 6, “Relación de Citlaltomahua y Anecuilco” 113.

humid and that is why they have sick land, not healthy land.”<sup>687</sup> Even if the land was not humid people were still susceptible to epidemic disease. The localities around Las Minas de Cimapan were “sterile and lack water...the disposition of the land is good and healthy, considering the pestilence of two years ago felt in these regions.”<sup>688</sup> The authors of the RG from Tequizistlan considered their region cold and humid because it was “located between ravines of water...the south wind prevails... it causes sickness in the heads of the natives as well as body pains.”<sup>689</sup> Colonial officials viewed the natural environment as a serious threat to the health of the people, often considering the human inhabitants as just another feature of the environment at the mercy of natural elements.

### **Colonial Authorities on Epidemics and Curative Processions** *Nahua Historian's Commentaries on Epidemics, 1577-1615*

One Nahua historian writing during the last part of the sixteenth century continued to write about the epidemics in Nahuatl. Don Domingo de San Antón Muñón Chimalpahin Quauhtlehuanitzin continued the Nahua annals tradition, but relying more on alphabetic than on pictorial script. Chimalpahin recorded notable events from preconquest times until around 1615. In their explanation of his objectives, James Lockhart, Susan Schroeder, and Doris Namala observe that his writings were “a record of the installation and removal of local high officials, reports of plagues, storms, and earthquakes, and of scandalous and other local newsworthy events.”<sup>690</sup> Chimalpahin was a long-term resident of Mexico City who focused on events that

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<sup>687</sup> Acuña, *Relaciones Geográficas*, Vol. 6, “Relación de Atlatlahuca” 50.

<sup>688</sup> Acuña, *Relaciones Geográficas*, Vol. 6, “Relación de Las Minas de Cimapan” 100.

<sup>689</sup> Acuña, *Relaciones Geográficas*, Vol. 7, “Relación de Tequizistlan” 224.

<sup>690</sup> Don Domingo de San Antón Muñón Chimalpahin Quauhtlehuanitzin, ed. and trans. by James Lockhart, Susan Schroeder, and Doris Namala. *Annals of His Time: Don Domingo de San Antón Muñón Chimalpahin Quauhtlehuanitzin*. Stanford, CA: Stanford University Press, 2006, 5.

affected him and his neighbors, and in doing so followed the structure of recording events established in Nahua communities before and after the conquest

Chimalpahin lived in Mexico City from 1593 until the mid-1620's. He spoke and wrote in his native language of Nahuatl. His first set of annals recorded the important events of the Mexica people from 1064 until 1521, based on the information that he found in ancient codices and the work of Alvarado Tezozomoc. Chimalpahin's second set of annals relied on records kept by don Gabriel de Ayala of Texcoco for the years 1243 until 1562.<sup>691</sup>

In their introduction to the translation of Chimalpahin's *Diario*, Lockhart, Schroeder, and Namala examine the transition from referring to Spaniards as *castilteca* to using the term *españoles* as proof of the evolving terms for Nahua social categorization. A similar evolution of terminology occurs over time in the vocabulary used to describe diseases, shifting from a reliance on Nahuatl terminology to Spanish disease vocabulary as the colonial period progressed. Schroeder argues that study of the Chimalpahin's body of work "represents a prime opportunity for Nahua intellectual history and especially for the discovery of key concepts or categories embodied in the author's vocabulary."<sup>692</sup>

Chimalpahin wrote that in 1577 a major sickness or *cocoliztli* occurred, when "we commoners died, and blacks, but only a few Spaniards died."<sup>693</sup> He used the same *cocoliztli* term for the epidemic in 1588, stating only that "In this year sickness raged greatly."<sup>694</sup> Once again, in

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<sup>691</sup> Anderson and Schroeder 1997, Vol 1: 10.

<sup>692</sup> Susan Schroeder, "The Annals of Chimalpahin" in *Sources and Methods for the Study of Postconquest Mesoamerican Ethnohistory, Provisional Version*, eds. James Lockhart, Lisa Sousa, and Stephanie Wood. Eugene: University of Oregon electronic publication, 2007; expanded 2010.

<sup>693</sup> Ibid. Chimalpahin, 26.

<sup>694</sup> Ibid. Chimalpahin, 30.

1597, he used *cocoliztli* to name an epidemic that affected most people, including “Infants who can already raise themselves up quite well and crawl, youths and maidens, grown men, mature men and women, and old men and women, all died. There was destruction by death, including some Spaniards.”<sup>695</sup> It was not until he described the events of 1609 did Chimalpahin use the Spanish term *viruelas* to refer to smallpox in a Nahuatl-language sentence. Chimalpahin draws attention to his use of the loan word when he wrote that many children as well as adults died of “*in çahuatl. In motenehua viruelas*” or “the rash, what is called smallpox.”<sup>696</sup> His combined use of Spanish and Nahuatl phrases suggests that he made an association or equivalence between the two terms.

In addition to using the Spanish term for smallpox, Chimalpahin refers to the epidemic of 1595 as measles or *sarampion*. However, his use of the Spanish word perhaps indicates his unfamiliarity with some Spanish disease terms.<sup>697</sup> Later, Chimalpahin again used the word *sarampion* about a great sickness of 1615, which he referred to as *cocoliztli çahuatl motenehua saranpio*--a “sickness rash called measles.”<sup>698</sup>

#### *Processions and Pharmacies: Combatting Illness throughout the Colonial Period*

During the 1595 epidemic, an epidemic that affected many people across the colony, colonial authorities took several measures to stem the widespread misery. Chimalpahin related that religious officials visited the homes around Mexico City to hear confessions and distribute food. In conjunction with efforts to soothe the suffering, Spaniards employed the most common

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<sup>695</sup> Ibid. Chimalpahin, 60.

<sup>696</sup> Ibid. Chimalpahin, 156.

<sup>697</sup> Ibid. Chimalpahin, 54.

<sup>698</sup> Ibid Chimalpahin, 298, also mentioned on p. 296.

medical technique of their day: bleeding (see chapter 2).<sup>699</sup> Disease raged through the entire month of December, despite all the remedial measures. On the last Sunday of December in 1596 Chimalpahin described a majestic procession of indigenous people and Spaniards from the church of San Sebastián to the hospital of San Lázaro Acalcaltitlan, located close to the shore of Lake Texcoco.<sup>700</sup> Chimalpahin wrote that “the reason this was done and there was a procession was because of the epidemic, so that our lord God and the precious Saint Mary would be appeased.”<sup>701</sup> Such processions were also held in times of other natural disasters such as floods,<sup>702</sup> both to "appease" God and the saints and to aid the local inhabitants in dealing with the tragedy. Chimalpahin's annals included descriptions of three other processions, including the procession of Santa María de los Remedios, in the year of 1597. These processions, celebrated by Nahuas and Spaniards alike, represented a melding of traditions. In preconquest times, Nahuas performed numerous rituals designed to honor, satisfy and placate deities, who were thought to be capable of bringing both harm and good.

However, processions were not always as inclusive as Chimalpahin portrays them to have been. In her article, Rosario Inés Granados Salinas explains the importance of processions for indigenous and Spanish communities, describing processions for Our Lady of Remedios from 1575 until 1810 in order to mitigate drought, famines, or epidemics. She clearly states that religious authorities never allowed indigenous people to be the main participants; the processions therefore were never “indigenized” even though at least three processions were organized to

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<sup>699</sup> Ibid. Chimalpahin, 54, te-yxmin-aya.

<sup>700</sup> Ibid. Chimalpahin, See Map 1.

<sup>701</sup> Ibid. Chimalpahin, 58.

<sup>702</sup> Ibid. Chimalpahin 81.

protect native peoples from the raging epidemics.<sup>703</sup> Salinas, who does not cite any of Chimalpahin's texts, concludes "it is clear that addressing the indigenous population aimed to include them as new Christians who could also receive the Virgin's protective mantle as much as the Spanish inhabitants."<sup>704</sup> However, Chimalpahin's writings suggest that he thought of processions as occasions that brought Nahuas and Spaniards together in their collective time of need. Chimalpahin uses the term *moyolcehuitzinoz* when referring to appeasing God and Mary. The term *moyolcehuitzinoz* is the future form of the verb "calm, satisfy, or placate," with an honorific suffix (*tzinoa*) befitting a deity and a saint.

Chimalpahin detailed several ways that officials fought the epidemic of 1597. In the first month, fray Alonso Urbano distributed forty pesos to buy maize, bread, caramels, and fruit for those who had fallen ill. Secular officials such as *regidores* and doctors also participated by looking after the sick and getting them "what they needed [in the way of] medicine from the pharmacy for their healing."<sup>705</sup> In that sentence, Chimalpahin used the traditional Nahuatl word for medicine, *patli*, but in describing the pharmacy he used the compound Spanish/Nahuatl word *boticapatli*.

## Conclusion

By the last decades of the sixteenth century, Nahuas and Spaniards relied on a variety of cultural frameworks to explain diseases that had crippled the indigenous population of New Spain. Visual texts, such as the Codex Telleriano-Remensis, relied on illustrated chronologies to depict waves of epidemics. The manuscript uses several visual styles, indigenous and European,

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<sup>703</sup> Rosario Inés Granados Salinas, "Mexico City's Symbolic Geography: The Processions of Our Lady of Remedios" *Journal of Latin American Geography* Volume 11, Special, 2012, 155-6.

<sup>704</sup> Salinas, 2012, 155.

<sup>705</sup> Chimalpahin, 60.

to describe the tremendous impact of epidemics. The indigenous authors and painters treated epidemic diseases as they did natural disasters, such as famines and snowstorms. Following the epidemics of the 1550s, the quality of visual representation in the Codex Aubin and Mexicanus declined with the quality of life in the colony. The loss of human life was reflected in the loss of indigenous abilities to keep records in the same way that they had kept them for centuries before the conquest. The steep decline in the quality of their documents following major epidemic periods reflects the struggle Nahuas faced to keep their culture and traditions alive in the face of decimating diseases.

Descriptions and explanations of disease in the RG reports associate the introduction of destructive epidemics with the arrival of Europeans. The RG reveals indigenous ideas about health and disease, often filtered through Spaniards who collected the information. Spanish officials wrote responses that were based in varying degrees on conversations with indigenous men. The officials recorded the information in Spanish, but many continue to refer to epidemics using the Nahuatl word for disease, *cocoliztli*, highlighting both the degree to which Nahuas participated in the process and the extent to which Spaniards viewed the epidemics in New Spain as something unique. Most responses combine Spanish and Nahua cultural elements in their understanding of disease. The RG responses document reactions to an epidemic that raged in 1576, when the reports circulated in New Spain. The reports also record memories of major epidemics in 1520 and 1546, inviting respondents to compare the health of indigenous communities before and after the conquest.

Cultural ideas about sickness in the RG show that Nahuas and Spaniards understood the epidemics in different ways, in accordance with their cultural heritages. An examination of the RG reports shows how people in Colonial Mexico understood disease in relation to the



environment. During the colonial period, successive and devastating epidemics diseases affected both Spanish and Nahua communities.

My research illustrates that the link between health and disease in the European mind was derived from the well-known writings of Hippocrates. Spanish officials, in their RG responses, evaluated the airs, waters, and land features of their colonial subjects. Their writings linked the temperature of the winds, the quality of the waters, and the positions of the mountains to the health of the region. They formulated their impressions of the natural environment according to their ideas about health and sickness. The information that colonial officials provided to the crown could have influenced the nature of colonization in New Spain, if the reports were ever read in Spain.

Concepts of health and illness influenced people's understanding of events. Spanish or Creole officials explained their rejection of Nahua health practices and proposed their own explanations for the widespread depopulation. European forms of evaluating health permeate the RG reports, linking health to climate and other environmental factors. They tended to sidestep discussions of the origins of disease by relying on their own socio-cultural systems to understand health. Drawing on Hippocratic notions of airs, waters, and places, Spanish officials easily linked the poor health of Native Americans to what they perceived as a pestilential environment.

People living in New Spain, both Spaniards and Nahuas, continually evaluated the state of the natural environment and disease, compiling information about their experiences as best as possible. The loss of life in Nahua communities, coupled with a colonial regime hostile to some of their cultural practices, hampered the creation of indigenous texts. Nahuas who survived to write their histories tried to make sense of the epidemics in their own words and cultural categories. However, by naming various diseases in their native language, Nahuas did not imply

that such diseases were a normal part of life before the arrival of Spaniards. On the contrary, many RG reports indicate that Nahuas associated the epidemics with changes introduced after contact with Spaniards. They pointed to changes in traditional lifeways or new practices.

Nahuas continued certain hygiene practices, such as bathing, despite the objections and even ridicule of most Spaniards. Other Nahuas insisted that changes in shelter, clothing, and work practices, especially the colonial system of forced labor, had caused decline in once healthy communities. Even if Nahuas disagreed about the exact causes of widespread ill health, they were certain that it was something *new* that had been introduced by the Europeans. Their association between the arrival of Europeans and the advent of ill health was not embraced by Spaniards, who chose to rely on their own notions of disease to explain the epidemics.

Whereas the Nahuatl- and Spanish language texts of the RG sampled a wide range of people, Chimalpahin was one exceptional individual who recorded events in and around Mexico City before and during his lifetime. His annals document the occurrence of epidemics and collective, public actions designed to address the problem. His writings show that epidemics persisted far into the colonial period and that Spanish and indigenous officials attempted to deal with them according to their respective ideas of health and healing.

This dissertation has used a variety of sources to examine how Nahuas experienced and remembered the epidemics that devastated all indigenous communities in central Mexico throughout the sixteenth century and beyond. Far beyond. Peter Gerhard counted nine epidemic outbreaks in New Spain during the eighteenth century.<sup>706</sup> The research of Lourdes Márquez Morfín provides the grim details on specific eighteenth-century epidemics. She determined that

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<sup>706</sup> Peter Gerhard, *Guide to the Historical Geography of New Spain*. Norman: University of Oklahoma Press, 1972. 23, Table D.

six smallpox epidemics occurred in the eighteenth century, plus a typhus epidemic in 1813 and an outbreak of cholera in 1833.<sup>707</sup> Robert McCaa points out that recurrent smallpox epidemics swept through New Spain every fifteen to twenty years, on average, until the crown initiated a massive vaccination campaign in 1798, led by Francisco Xavier de Balmis.<sup>708</sup> Even efforts to vaccinate people did not eradicate smallpox, however, and other diseases continued to ravage the population throughout the colonial period and beyond.

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<sup>707</sup> Lourdes Márquez Morfín, *La desigualdad ante la muerte en la Ciudad de México: el tifo y el cólera (1813-1833)*. México DF: Siglo XXI, 1994. 215-268.

<sup>708</sup> Robert McCaa, "The Peopling of Mexico from Origins to Revolution" in *Population History of North America*. Michael R. Haines, Richard H. Steckel eds. Cambridge: Cambridge University Press, 2000, 260.

Chapter Four: Figures

Fig. 1, Telleriano Remensis 45v, ©Bibliothèque nationale de France

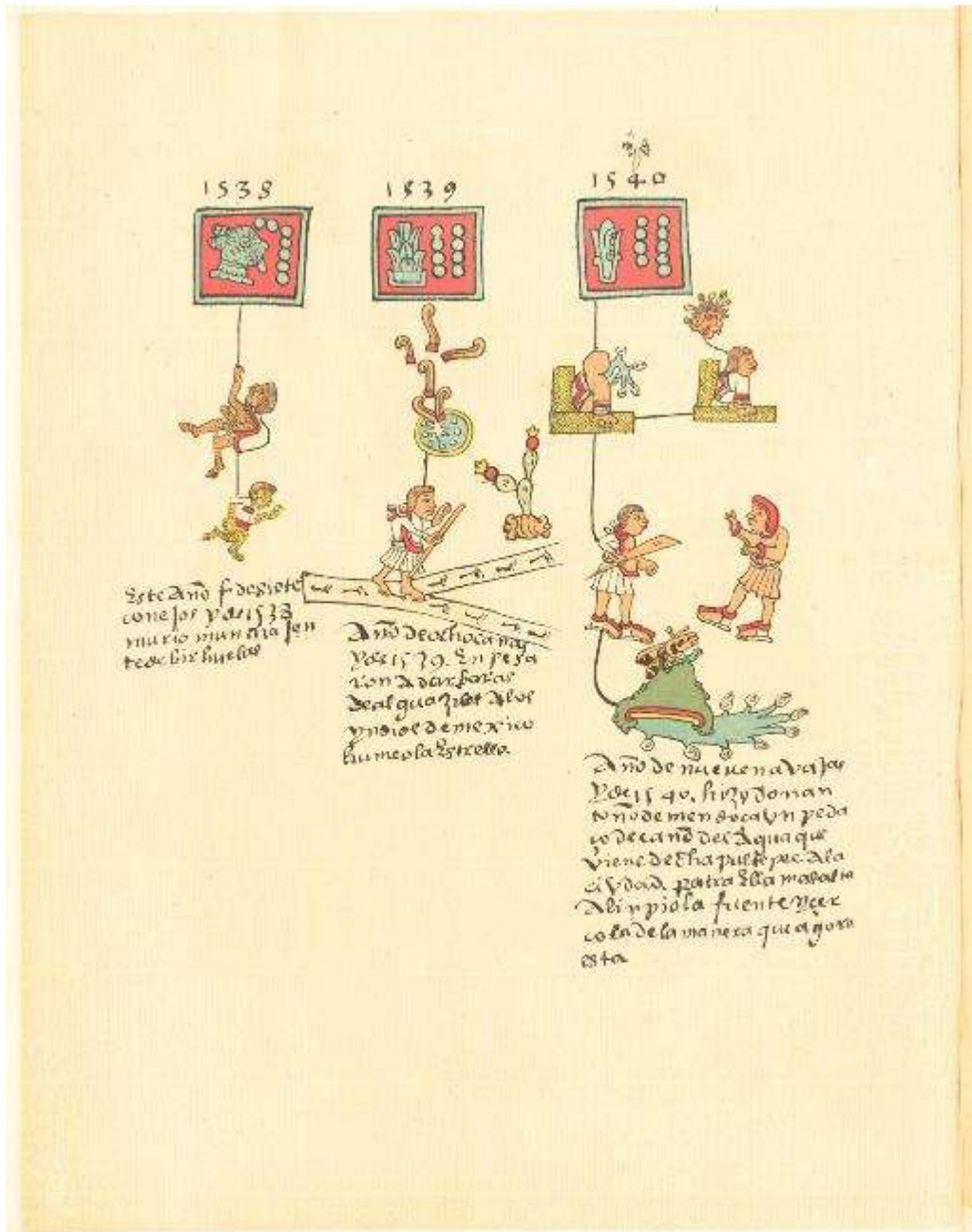


Fig. 2, Telleriano Remensis fo. 32r, ©Bibliothèque nationale de France

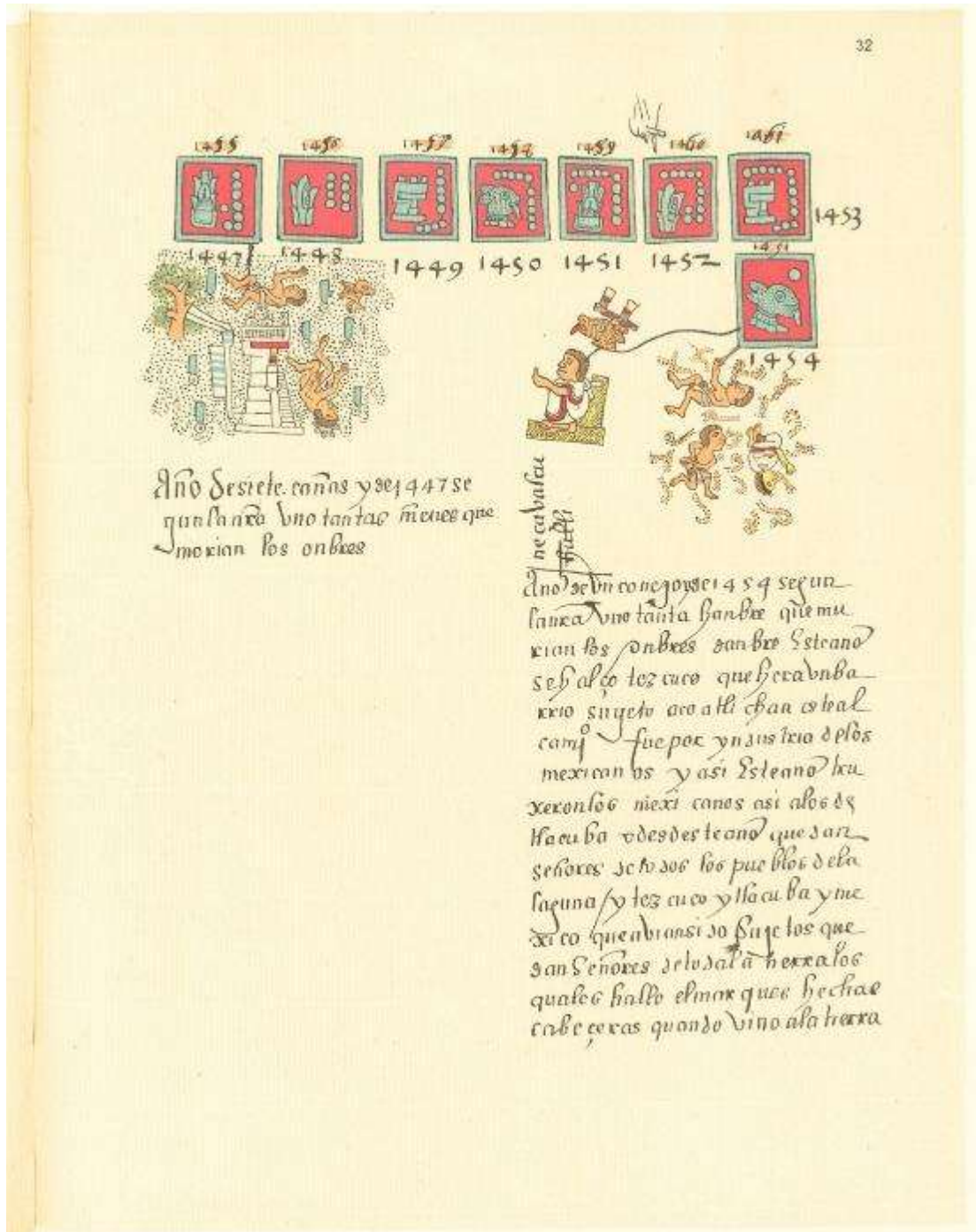


Fig. 3, Telleriano Remensis fo. 46v, ©Bibliothèque nationale de France





Fig. 4, Telleriano Remensis fo. 51v, ©Bibliothèque nationale de France

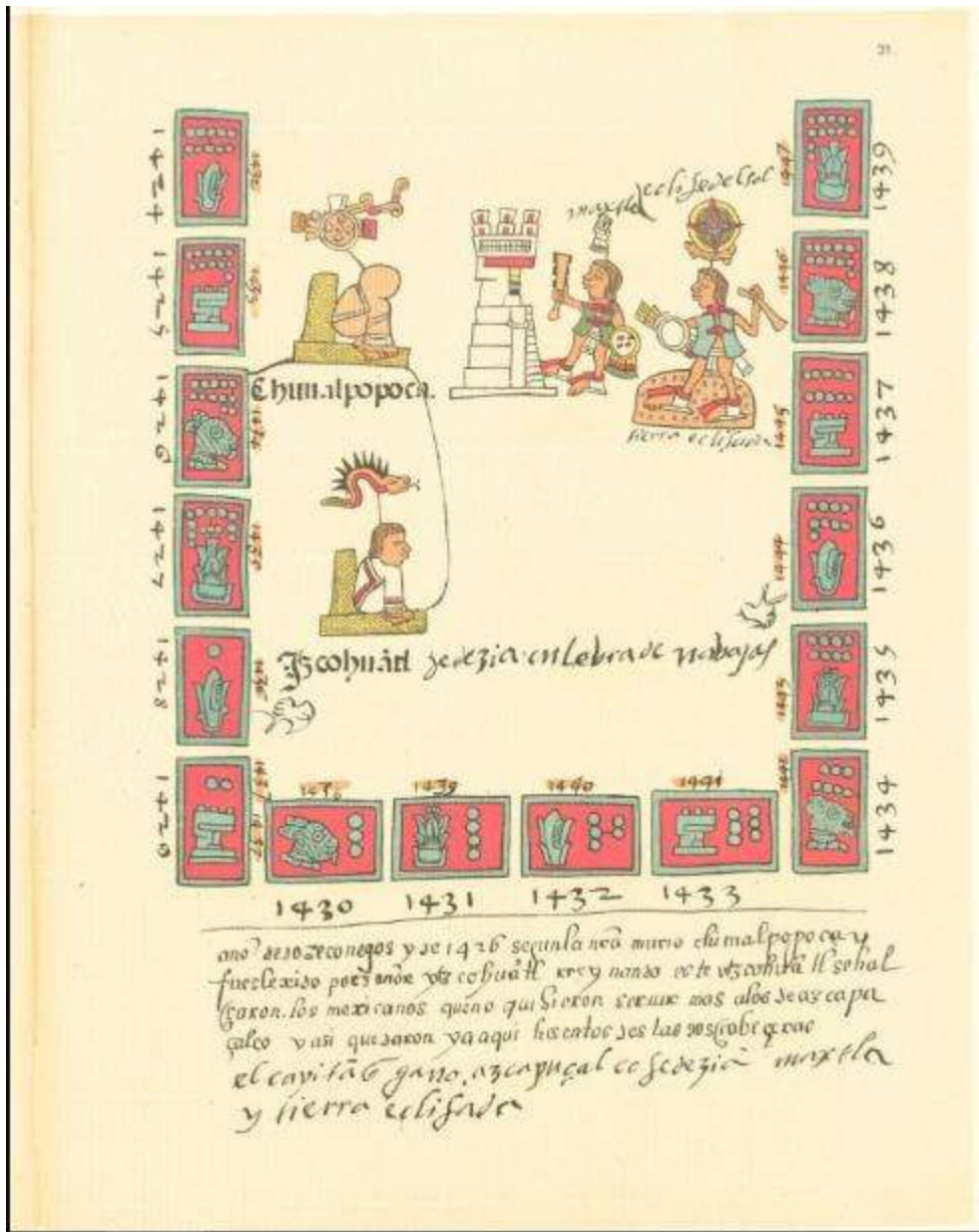


Fig. 5, Telleriano Remensis fo. 48r, ©Bibliothèque nationale de France

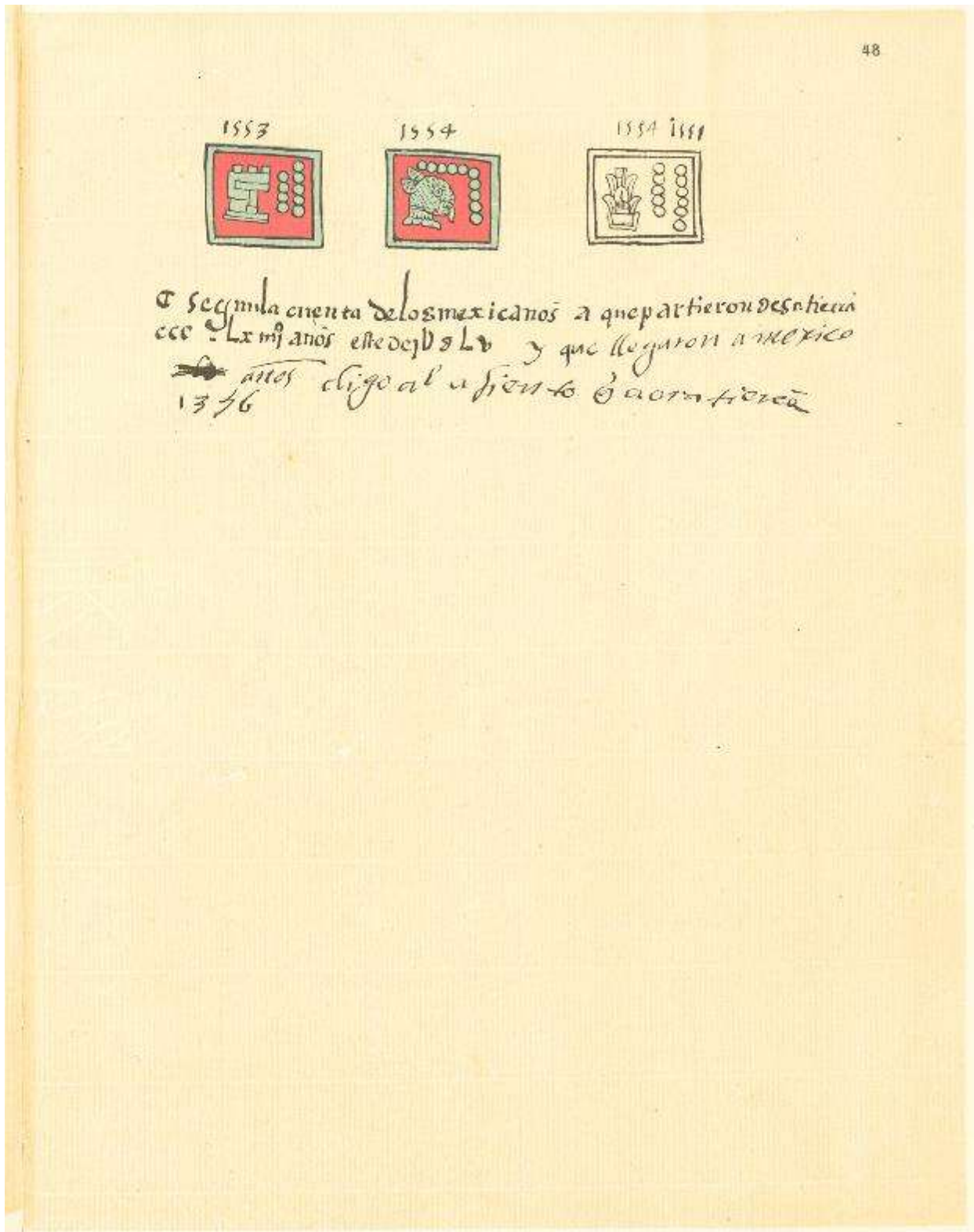




Fig. 6, Telleriano Remensis fo. 47v, ©Bibliothèque nationale de France

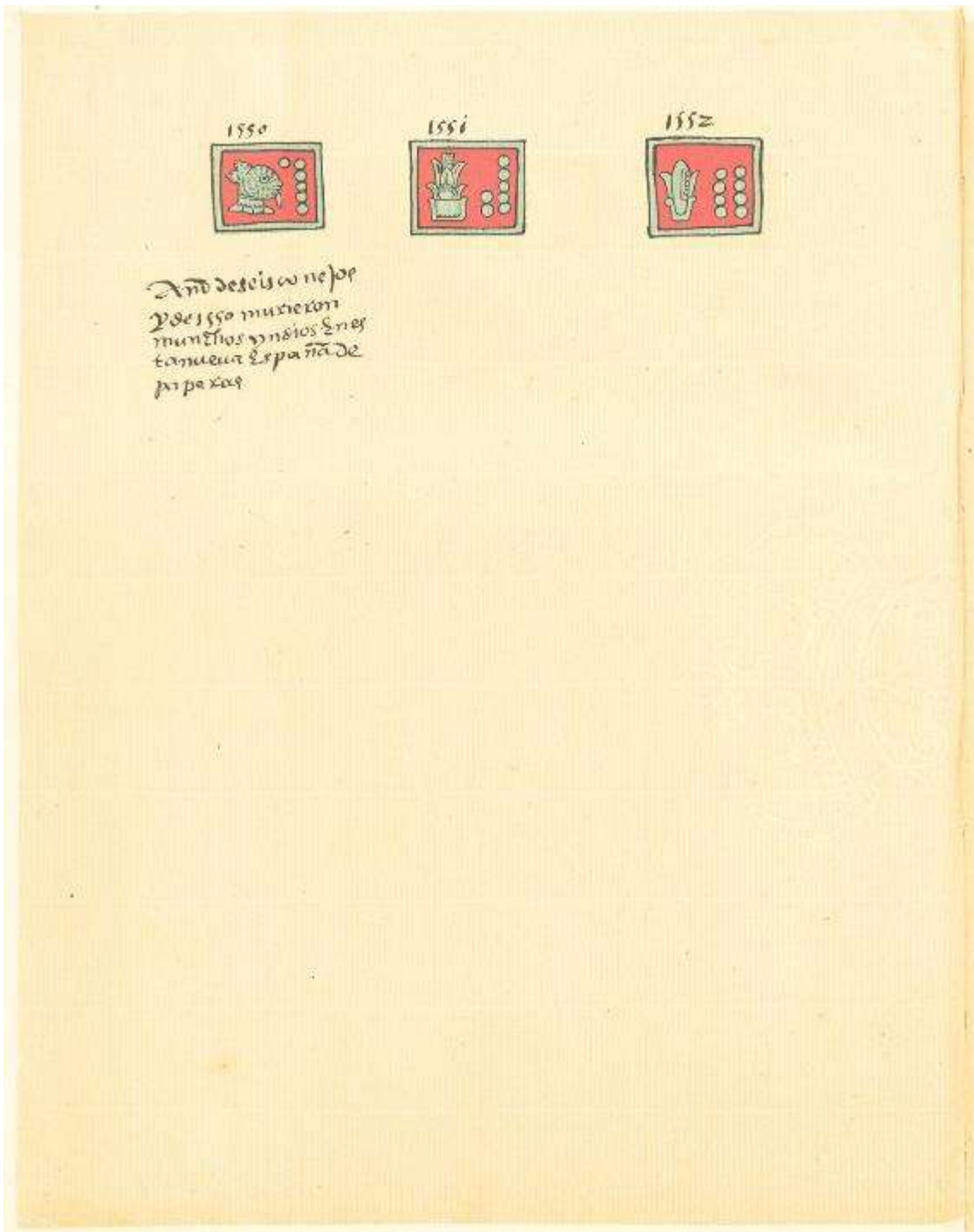






Fig. 9, Codex Aubin fo. 53v, ©Trustees of the British Museum





Fig. 10, Codex Aubin fo. 68v, ©Trustees of the British Museum

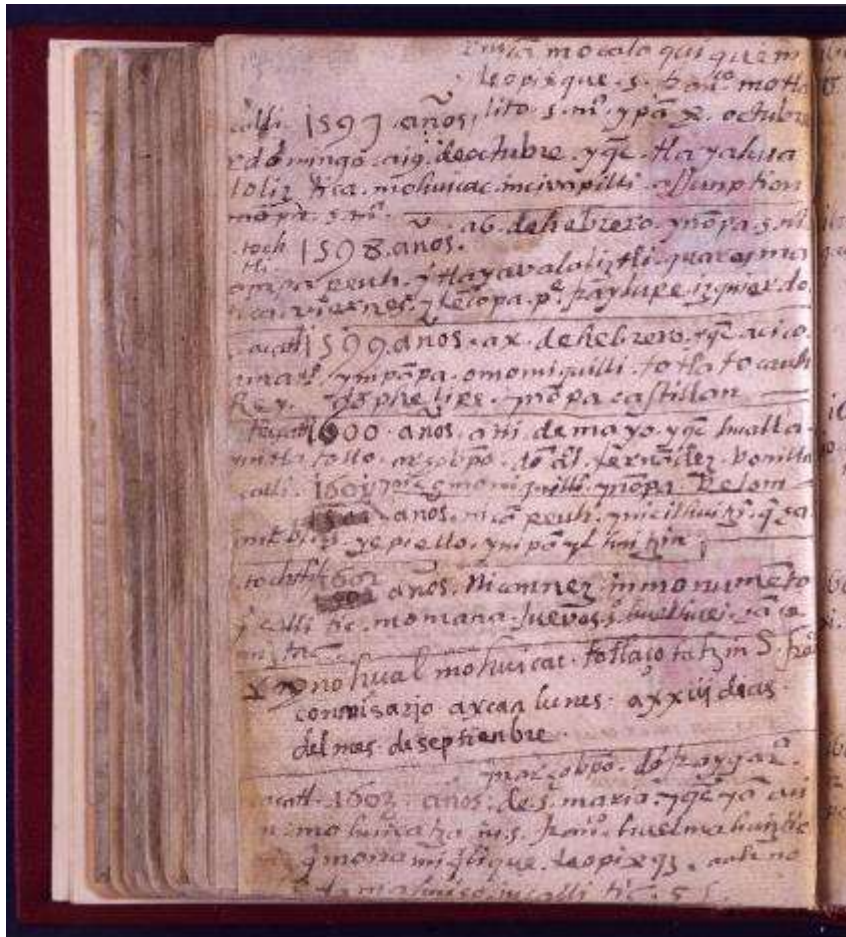
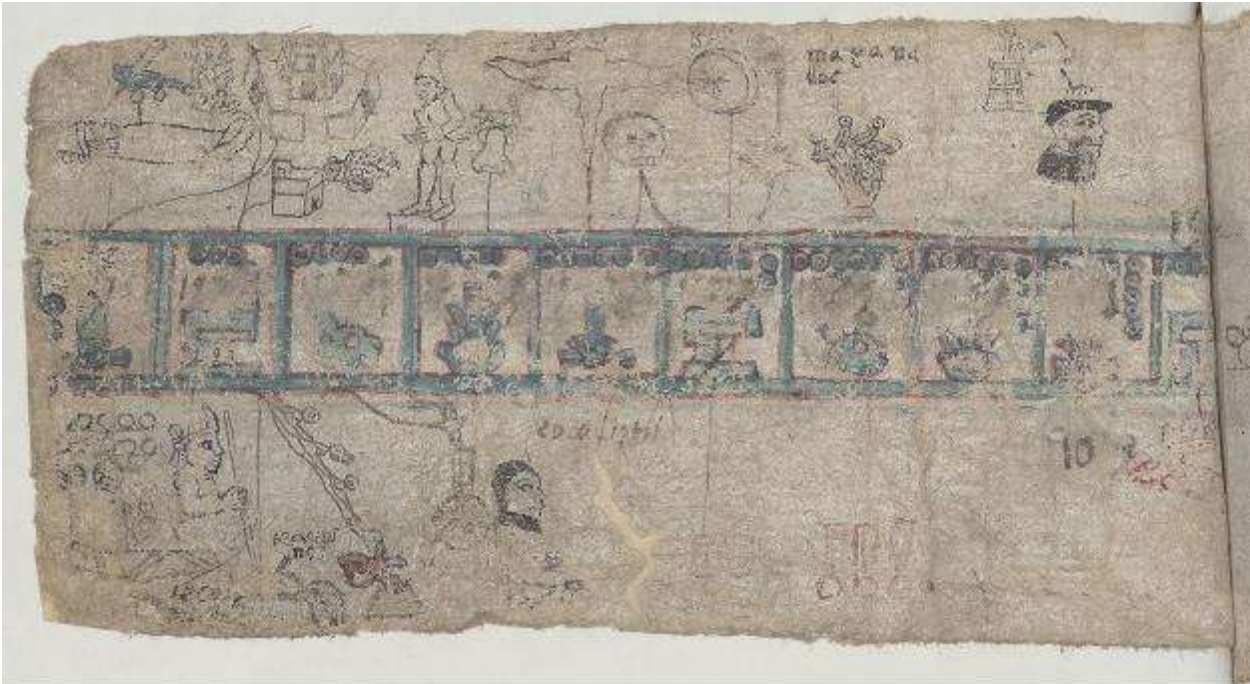
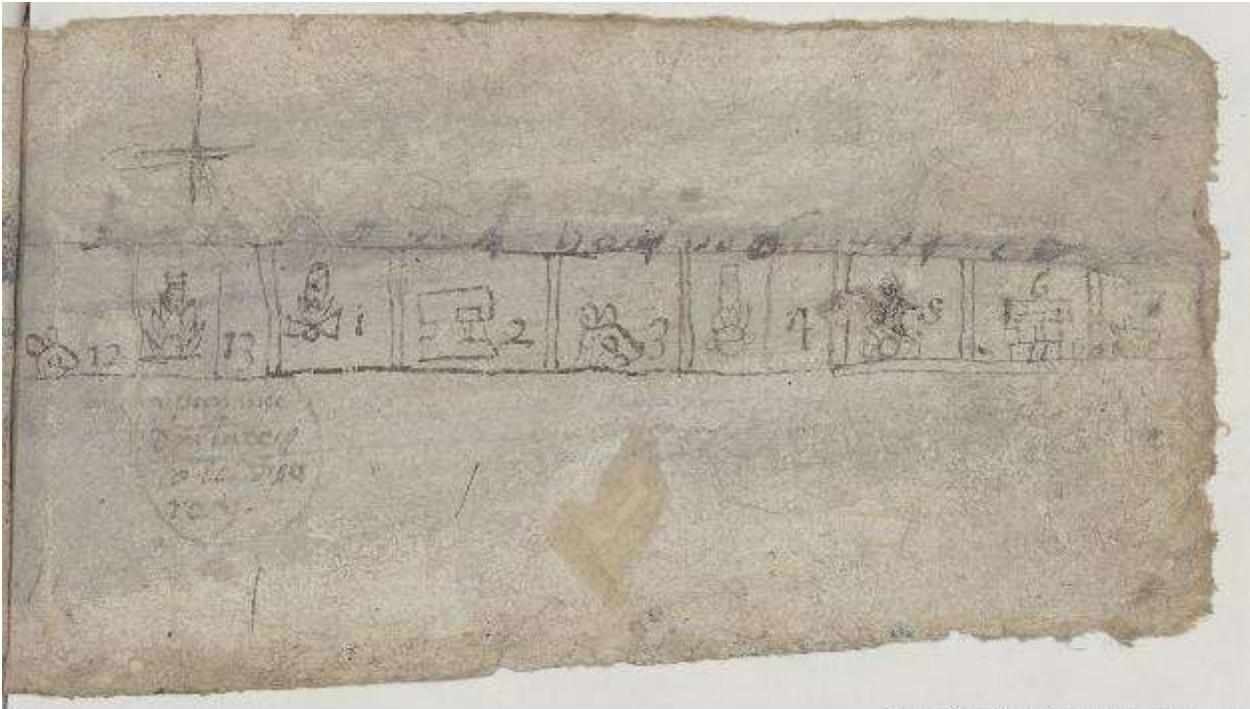


Fig. 11, Codex Mexicanus fo. 86, ©Bibliothèque nationale de France



Source gallica.bnf.fr / Bibliothèque nationale de France

Fig. 12, Codex Mexicanus fo. 86, ©Bibliothèque nationale de France



Source: gallica.bnf.fr / Bibliothèque nationale de France

Fig. 13, Codex Magliabecchiano fo. 65, ©Biblioteca Nazionale Centrale





## Excerpt Questions from the RG

“3. Y, generalmente, el temperamento y calidad de la dicha provincia o comarca, si es muy fría o caliente, o húmeda o seca, de muchas aguas o pocas, y cuándo son, más o menos, y los vientos que corren en ella qué tan violentos y de qué parte son, y en qué tiempos del año.

4. Si es tierra llana o áspera, rasa o montuosa, de muchos o pocos ríos o fuentes, y abundosa o falta de aguas, fértil o falta de pastos, abundosa o estéril de frutos y de mantenimientos.

5. De muchos o pocos indios, y si ha tenido más o menos en otro tiempo que ahora, y las causas que dello se supieren; y si los que hay, están poblados en pueblos formados y permanentes; y el talle y suerte de sus entendimientos, inclinaciones y manera de vivir; y si hay diferentes lenguas en toda la provincia, o tienen alguna generalmente en que hablen todos.

...

15. Cómo se gobernaban y con quién traían guerra, y cómo peleaban, y el hábito y traje que traían y el que ahora traen, y los mantenimientos de que antes usaban y ahora usan, y si han vivido más o menos sanos antiguamente que ahora, y la causa que dello se entendiere.

16. En todos los pueblos, de españoles y de indios, se diga el asiento donde están poblados, si es sierra, o valle, o tierra descubierta y llana, y el nombre de la sierra, o valle y comarca do estuvieren, y lo que quiere decir en su lengua el nombre de casa cosa.

17. Y si es tierra o puesto sano o enfermo, y, si enfermo, por qué causa (si se entendiere), y las enfermedades que comúnmente suceden, y los remedios que se suelen hacer para ellas.

18. Qué tan lejos o cerca está de alguna sierra o cordillera señalada que esté cerca dél, y a qué parte le cae y cómo se llama.”

## Conclusion

Since the first encounters between Mesoamericans and Europeans, narratives of the conquest of Mexico and subsequent diseases have been dominated by Spanish perspectives. Spaniards relied on Greco-Roman-Arabic medical frameworks and Christian representations of illness to explain the major epidemics of the early colonial period. They attempted to impose their concepts of disease on the peoples whom they had violently subjugated. Yet, indigenous peoples did not immediately abandon their ideas and practices; despite centuries of colonial rule, they maintained their own accounts of the epidemics that reveal their perspectives on the conquest. Only in the past two decades have scholars focused on indigenous perspectives of these events. In a recent article based on the *Florentine Codex* (FC) and the *Annals of Tlatelolco*, Kevin Terraciano connects histories of the conquest in several indigenous sources, demonstrating marked differences between Spanish and Nahuatl accounts of the same events.<sup>709</sup> Much can be gained from viewing the recorded events from the perspective of the conquered.

Under colonial rule, Nahuas could not, or at least did not, openly blame Spaniards for bringing diseases to their communities. Instead, they utilized their frameworks of sickness and health to explain the epidemics that followed the Spanish invasion. Nahuatl and Spanish records continued to use the term *cocoliztli* to refer to illness even in Spanish-language colonial sources.

<sup>710</sup> Although my research ends with events in 1615, epidemics continued throughout the late colonial period. In her investigation of the urban indigenous communities and silver mining in

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<sup>709</sup> Kevin Terraciano, "Narrativas de Tlatelolco sobre la Conquista de México." *Estudios de Cultura Nahuatl*, v. 47 (January-June), 2014.

<sup>710</sup> Pablo Miguel Sierra Silva, *Urban Slavery in Colonial Mexico: Puebla de los Ángeles* (forthcoming). It will be featured in Chapter 2, "Ambition, Agency and Abuse: The Textile Mills of Colonial Puebla." Sierra Silva finds references to *cocoliztli* in a document from Puebla written in 1590.

Zacatecas, Dana Velasco Murillo finds records of epidemics in 1634 and 1637.<sup>711</sup> Epidemics continued to afflict the people of New Spain through the 18th century.<sup>712</sup>

This dissertation explores Nahua and Spanish concepts of illness and health in writings from the early colonial period. Considerations of non-western medical interpretations have long been included in works on the American colonies, where epidemics were equally deadly for indigenous peoples. The construction of British, Dutch, and French colonies hastened the spread epidemic diseases throughout the Americas. Several recent works on British Colonial America study the cultural concepts of disease and the place of healers in local systems of knowledge production. In her 2013 book, Kelly Wisecup documents Native American and African participants in healing practices during the epidemic that resulted from the founding of Virginia, and during the great outbreaks of sickness in Puritan England.<sup>713</sup> Her work shows that both Europeans and Native Americans adapted their medical practices during the challenging periods of epidemics. Although British colonists denounced the pagan healing practices of Native Americans, they eagerly adopted indigenous remedies. The works of authors such as Cristobal Silva, Kathleen Donegan, and Elaine G. Breslaw examines the evolution of concepts of disease during intercultural exchanges and the generally hybrid nature of American colonial knowledge production.<sup>714</sup> Paul Kelton's 2015 study of Cherokee remedies examines indigenous

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<sup>711</sup> Dana Velasco Murillo, *Urban Indians in a Silver City: Zacatecas, Mexico, 1546-1810*. Palo Alto: Stanford University Press, 2016, 120.

<sup>712</sup> Paul F. Ramírez, "Minerva's Mexico: Science, Religion, and the Art of Healing in Late Colonial Epidemics, 1736-1821" PhD diss., University of California, Berkeley, 2010.

<sup>713</sup> Kelly Wisecup, *Medical Encounters: Knowledge and Identity in Early American Literature*. Amherst, Mass.: University of Massachusetts Press, 2013.

<sup>714</sup> Cristobal Silva, *Miraculous Plagues: An Epidemiology of Early New England Narrative*. New York, 2011; Kathleen Donegan, *Seasons of Misery: Catastrophe and Colonial Settlement in Early America*. Philadelphia:

cosmological beliefs to explain healing methods.<sup>715</sup> Much like the Nahua, outbreaks of smallpox led to widespread loss of self-rule and territory among the Cherokee. Kelton explodes popular notions of the period that blamed Native Americans for the widespread sickness in their communities, and situates death from disease within the context of colonial violence. These authors have made valuable contributions to the historiography by analyzing disease from both biological and cultural perspectives, attempting to understand better how victims tried to cope with the trauma.

The first chapter of the dissertation shows that the Nahua attempted to apply their own cultural concepts to understanding epidemic diseases. Nahuas possessed a complex, cohesive understanding of health and hygiene before the arrival of Spaniards. Many of these ideas and practices continued throughout the colonial period, and some continue to appear in modern Nahua communities. The longevity of Nahua cultural practices, especially in matters of sickness and healing, reveal the extent to which certain practices resisted even the most pervasive forms of colonial control. The chapter examines the FC in detail: the Nahuatl text; the Spanish translation, and Sahagún's prologues and interpolations; and the images. The analysis and translations of the Nahuatl by Arthur Anderson, Charles Dibble, and James Lockhart shed light on different Nahua perspectives in the books of the FC.<sup>716</sup> The Spanish text was written second

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University of Pennsylvania Press, 2014; Elaine G. Breslaw, *Lotions, Potions, Pills, and Magic: Health Care in Early America*. New York: New York University Press, 2012.

<sup>715</sup> Paul Kelton, *Cherokee Medicine, Colonial Germs: An Indigenous Nation's Fight against Smallpox, 1518–1824*. Ithaca, N.Y.: Cornell University Press, 2015.

<sup>716</sup> Bernardino de Sahagún, *The Florentine Codex: General History of the Things of New Spain*. Arthur J.O. Anderson and Charles E. Dibble, trans. 13 vols. Salt Lake City, UT: University of Utah Press. 1950-82; Ibid and James Lockhart, *We People Here: Nahuatl Accounts of the Conquest of Mexico*. Berkeley: University of California Press. 1993.

and is at times a loose translation, at best.<sup>717</sup> The images have been, for the most part, the purview of art historians. The research of Diana Magaloni Kerpel on the images of the FC, and broader analysis of indigenous artistic practices found in the work of Ceclia Klein and Elizabeth Hill Boone, contribute to a broader understanding of Mesoamerican iconography in the sixteenth century.<sup>718</sup> The first chapter builds on their outstanding scholarship by examining each of the three sources in relation to one another, as three separate but related texts. None of the sources exist on the page without the other two, and as Terraciano points out; they are different enough to warrant a close and informed comparison.<sup>719</sup> I analyze all three texts to understand how Nahuas imagined healthiness and sickness in the sixteenth century.

Nahuas explained sickness in relation to pollution, and associated health with moral and physical cleanliness. Proceeding from Louise Burkhart's work on Nahua and Christian moral dialogues, my investigation focuses on the physical and moral qualities associated with sickness and health.<sup>720</sup> One of the many ways that Nahua and Western thought diverged involves Nahua

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<sup>717</sup> Bernardino de Sahagún, *Historia general de las cosas de la Nueva España*. eds. Carlos de María Bustamante. México: Alejandro Valdés, 1829.

<sup>718</sup> Diana Magaloni Kerpel. *Albores de la conquista: la historia pintada del Códice Florentino*. Mexico City: Artes de México y del Mundo S.A. and Secretaría de Cultura, 2016; Ibid. "Imágenes de la conquista de México en los códices del siglo XVI: Una lectura de su contenido simbólico." *Anales del Instituto de Investigaciones Estéticas* 25, no. 82 (2003): 5–45; Ibid. "Images of the Beginning: The Painted Story of the Conquest of Mexico in Book XII of the Florentine Codex." 2004; Ibid. *Los colores del nuevo mundo: artistas, materiales y la creación del Códice florentino*. México D.F.: Universidad Nacional Autónoma de México, 2014; Ibid. "The Colors of Creation: Materials and Techniques in the Florentine Codex." eds. by Thomas Cummins, Emily A. Emgel, Barbara Anderson, and Juan M. Ossio. *Manuscript Cultures of Colonial Mexico and Peru*, 2014, 175–89; Ibid. *Visualizando la nueva era. Los ojos presagios de la conquista de Mexico en el Códice florentino*. France: Nuevo Mundo, 2005; Ibid., and Cuauhtémoc Medina. *The Colors of the New World: Artists, Materials, and the Creation of the Florentine Codex*. Los Angeles: Getty Publications, 2014; Cecelia F. Klein, "Snares and Entrails: Mesoamerican Symbols of Sin and Punishment." *RES: Anthropology and Aesthetics*, no. 19/20 (January 1, 1990): 81–103; Ibid. "Teocuitlatl, 'Divine Excrement': The Significance of 'Holy Shit' in Ancient Mexico." *Art Journal* 52, no. 3, 1993; Elizabeth Hill Boone. *Stories in Red and Black: Pictorial Histories of the Aztecs and Mixtecs*. Austin: University of Texas Press, 2000.

<sup>719</sup> Kevin Terraciano, "Three Texts in One: Book XII of the Florentine Codex." *Ethnohistory*. 57, no. 1, 2010.

<sup>720</sup> Louise Burkhart, *Slippery Earth: Nahua-Christian Moral Dialogue in Sixteenth-Century Mexico*. Tucson: University of Arizona Press, 1989; "The Solar Christ in Nahuatl Doctrinal Texts of Early Colonial Mexico"

conceptions of healing. As opposed to Spaniards, who focused on the purity of the non-material soul, Nahuas purified their bodies and souls through ritual practices, such as sweeping and bathing. Whereas Burkhart and Catherine DiCesare focused on the religious meanings of sweeping, chapter one explores the spiritual and material ramifications of this practice for maintaining good health.<sup>721</sup> Nahua authors expressed conditions of bodily and spiritual health through references to the heart and breath. For the Nahua, these factors indicated the status of the life force or “soul.”

Another facet of health and healing found in sixteenth-century and modern studies of illness in Mexico is the concept of illness (specifically soul loss) from fright, or *susto*, a distinctly non-western etiology. Many modern-day indigenous people and Mexicans generally consider severe fright to precede and to cause an illness. The work of Alan Sandstrom on the Nahuatl-speaking communities of eastern Mexico shows that Nahua methods of diagnosis seek to identify the conditions that allowed the body to become susceptible to illness in the first place. The bearer of pollution could be the *tlazolli ehecatl*, or filth wind, which causes sickness. Sandstrom encountered shamans and healers who deal with the same concept of filth wind.<sup>722</sup> They create paper-cut offerings to ward off the sickness and the harm wrought by such winds. The health and illness concepts of breath/wind, fright, water purification, the tonalli of day-signs, and cleanliness through sweeping appear in both modern and colonial societies and their texts.

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*Ethnohistory* 35, no. 3 (Summer 1988): 234-256; *Aztecs on Stage: Religious Theater in Colonial Mexico*. trans. Barry D. Sell and Stafford Poole, Normal: University of Oklahoma Press, 2011.

<sup>721</sup> Catherine DiCesare. *Sweeping the Way: Divine Transformation in the Aztec Festival of Ochpaniztli*. Denver: University Press of Colorado, 2009.

<sup>722</sup> Alan Sandstrom. “The Image of Disease: Medical Practices of Nahua Indians of the Huasteca” Monographs in Anthropology. No. 3. Columbia: Department of Anthropology, University of Missouri-Columbia, 1978.

Chapter Two of this dissertation focuses on the concepts that Spaniards brought with them to Mexico and used to understand widespread death from epidemic disease. Their concepts were in some ways very different, especially in regard to bathing, but they were also similar to those of the Nahuas, especially in regard to the spiritual causation of illness. Western concepts focused on the breath, the hearth, blood, bathing, and the bodily connection to supernatural or celestial forces. I argue that although the humoral system contained similarities with Nahua systems of health, such as a focus on bodily equilibrium, it merely overlay active Nahua philosophies. The layering of healing systems was another facet of what Lockhart called “Double Mistaken Identity,” whereby “each side takes it that a given form or concept is essentially one already known to it, operating in much the same manner as in its own tradition, and hardly takes cognizance of the other side’s interpretation.”<sup>723</sup> Usually the Western concepts were rooted in Greek, Roman, and Islamic texts from long before the sixteenth century. The texts of these ancient societies determined how early modern doctors and lay people conceived of health and illness.

Medical professionals trained in early modern Iberia focused on two categories to analyze the onset of illness. The first category, the naturals, included the physical environment and influences from changes in the planets or zodiac system. After 1477, trained doctors analyzed disease according to a medical system based on a second category of analysis: the non-naturals. These included airs, food, drink, work, rest, excretions, and passions of the mind. The curriculum, based on Greco-Roman-Arabic texts, explored the non-naturals, including the causes and symptoms of the illness itself. Following the examples of the Tribunal of the Protomedicato

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<sup>723</sup> James Lockhart. *The Nahuas After the Conquest: A Social and Cultural History of the Indians of Central Mexico, Sixteenth through Eighteenth Centuries*. Stanford: Stanford University Press, 1992, 445.

in Spain, the same governing body founded in New Spain in 1524 utilized a similar curriculum to train doctors. Doctors concerned themselves with the theoretical notions of disease, whereas surgeons gained hands-on experience. The Protomedicato established a surgery school in 1621. There, surgeons completed were apprenticed to a doctor to learn shaving techniques and bloodletting. Both surgeons and barbers served the few hospitals established in New Spain. One of these, the Royal Indigenous Hospital, exclusively served the suffering Nahuas of central Mexico

Just as trained surgeons and doctors relied on their education to understand disease, they relied on explanations based on their religious faith. A surgeon, Alonso López de Hinojosos, wrote the first surgical treatise published in the vernacular in New Spain. He paused in his explanations of blood, abscess, and pustules to describe his struggle to cure the many sick indigenous people whom he encountered. He wrote that he attempted to identify the disease that killed so many indigenous people in Mexico City in 1576. He noted that the Viceroy sent both secular and religious authorities to conduct confessions and to tend to the sick. Following the devastation of the epidemic, he noted that the townspeople held processions honoring the Virgin of Remedies, a saint viewed as helpful during times of plague.

Another medical practitioner, a doctor, Augustin Farfán, wrote two treatises that explored epidemics in New Spain, including one treatise on anatomy and another on medicine and diseases. In the latter Farfán dedicated an entire chapter to descriptions and treatments for smallpox and measles, because he had witnessed deaths from the diseases on a daily basis. His citation of Galen reveals his education, and his references to God's will betray his faith. Examples of this type of medical pluralism, the joining of healing practices and expressions of Christian faith, abound in texts by Spanish authors. Nahuas may have understood the European



practice of blood-letting as a type of penance or auto-sacrifice, a common feature of Mesoamerican religion. Here the phenomenon of double-mistaken identity was possible; Spaniards believing in its physiological qualities, Nahuas thinking of the practice in spiritual terms, as an offering to a deity or deities. However, most Western-trained healers were opposed to Mesoamerican bathing practices and made no mistake about the practice. Many Spaniards perceived ritual bathing as pagan, as an offense to their god more than a pragmatic cleansing of the body.

Many Christians attributed the epidemics to the will of their God, His punishment for their ancient paganism and/or continued heresy. The idea that indigenous societies were to blame for their own suffering can be found in many Spanish texts.<sup>724</sup> Spanish chroniclers such as Mendieta, Motolinía, López de Gómara, and Torquemada could not resist speculating about the causes so many deaths in their times. Most clerical and secular writers, either by habit or by belief, described the deaths as the secret judgment of their god. In his 1541 manuscript, Motolinía likened the epidemics of New Spain to the biblical plagues of Egypt, the result of God's wrath for which there was no cure. The same authors also found fault with certain indigenous cultural practices. Motolinía and López de Gómara pointed to the practice of bathing as a contributing factor to the deaths. The Franciscan Mendieta also attributed the great dying to a secret judgement of his god, but considered the plagues a merciful end to colonial oppression more than a wrathful punishment. Dr. Farfán blamed the inflaming nature of baths and, ultimately, cited

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<sup>724</sup> William Prescott, *History of the Conquest of Mexico*. London: Swan Sonnenschein & Co. 1891; Robert Ricard, Lesley Byrd Simpson, *The Spiritual Conquest of Mexico*. Berkeley: University of California Press, 1966; Tzvetan Todorov, *The Conquest of America: The Question of the Other*. Norman: University of Oklahoma Press, 1999.

divine will. He suggested that even newly converted Nahuas viewed the diseases as punishments for their sins.

Fray Bernardino de Sahagún sympathized greatly with indigenous people who had suffered from disease. He had worked closely with Nahua scholars and students throughout his entire career in New Spain. Unlike many of his contemporaries, he clearly recognized that disease was the main cause of depopulation, not war or forced servitude, and he understood fully the magnitude of the decline.<sup>725</sup> His understanding of the significance of the epidemics sets him apart from most writers of his time. His deep concern about depopulation of Mexico motivated him to record the knowledge of Nahua elders, relying on a team of skilled Nahua scholars to document this knowledge. He confessed that he feared that the indigenous peoples of the Americas would become extinct because so many people were dying every day. He used the dire situation of the epidemics to illuminate the spiritual, intellectual, and administrative problems that plagued New Spain.

Chapter Three of this dissertation examines the ways in which Nahuas depicted health and illness during the Spanish-led invasion of Mexico in 1519-21. It takes the concepts explored in chapter one and examines how the Nahua authors of Book 12 of the FC applied these concepts to the events that they described. They relied on their understanding of poor health to explain the first major epidemic as a logical outcome of the threatening and polluting acts of the Spaniards. The chapter examines the three texts of the FC to suggest how Nahuas viewed the disease-causing events of the invasion.

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<sup>725</sup> Noble David Cook, *Born to Die: Disease and New World Conquest, 1492-1650*. Cambridge: Cambridge University Press, 2004.

In chapter three, I argue that Nahuas centered the first epidemic in their narrative by first detailing the polluting actions that led to the inevitable outbreak of disease. On the basis of descriptions of Moteuczoma as a doomed, desperate, and fearful leader, many scholars have considered him as a scapegoat for the defeat of the Mexica. In the writings of William Prescott, for example, a weak and fearful Moteuczoma sunk his people into defeat.<sup>726</sup> Lockhart noted that the leader usually appears quaking, indecisive, quiescent, and effete.<sup>727</sup> These descriptions assume that fright and depression meant the same things to Nahuas writing in the sixteenth century as to historians writing in modern times. They have failed to understand the complicated context of how Nahuas understood the physical implications of fright, and physical or heart-related afflictions. From a Nahua perspective, the terrifying news of the powerful Spanish weapons and the filth carried by the messengers was the cause of the Nahua leader's demise, not any character flaw of cowardice. These conceptual differences reveal a foundational misunderstanding of the original Nahuatl text, which is not adequately represented by the Spanish translation.

First the Mexica *tlatoani* who spoke for the entire community experienced fright. The leader fell ill and his sickness spread to everyone. The spreading nature of the fright and subsequent illness contradicts the notion that Moteuczoma alone was responsible for the downfall of Tenochtitlan. Moteuczoma was not simply too bewildered and paralyzed to resist the invaders, he was afflicted by a devastating illness. I argue that these descriptions of fear represented early symptoms of the epidemic diseases that would strike the community in 1520.

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<sup>726</sup> William Prescott, *History of the Conquest of Mexico*. London: Swan Sonnenschein & Co. 1891.

<sup>727</sup> James Lockhart, Bernardino de Sahagun. *We People Here: Nahuatl Accounts of the Conquest of Mexico*. Berkeley: University of California Press, 1993.

The actions of the Spaniards once they reached Tenochtitlan only amplified the spread of fear, and thus, illness. After the first meeting between Moteuczoma and Cortés, the Spaniards seized the indigenous leader and held him captive, locking him in irons. The terror and the physical anguish, expressed through verbal metaphors involving the heart, affected both those present and those who only heard about the frightening series of events. The Spaniards' occupation of the palace and their demands for food and gold shocked people. The luster of their armor, their horses and dogs, their guns and crossbows and iron lances--all inspired great fear. The Nahuatl authors described the invaders as fright-inspiring and incredibly filthy.

The Nahuatl text of the FC described the first epidemic as *cocoliztli totomonaliztli*, a phrase translated as a sickness of pustules. To the Nahuatl authors, *cocoliztli* conveyed great pain or social disruption, meanings that can be read differently in translation. In Spanish, *bubas* (pustules) and even the term *viruela* (smallpox) indicated suffering, but the terms refer to specific disease etiologies. The term *cocoliztli* indicated not only the specific symptoms of illness, but also the moral discourse of hatred and suffering. Louise Burkhart shows that Nahuatl moral discourse considered the pollution of individual acts as the agents of additional maleficent effects. The Nahuatl authors of the FC documented the polluting acts of the Spaniards. The Spaniards damaged Nahuatl leaders as soon as they came into contact with them, they brought filth into the city, and they disrupted the normal cycle of calendrical feast days. Ultimately, they soiled and entirely polluted one of the principle feast days of the altepetl, the Toxcatl ceremony, dedicated to the titular deity of Huitzilopochtli, by attacking unarmed people in the ceremonial plaza of the city. This massive social disruption, and the total war that followed, resulted in poor health outcomes for all Nahuas, and eventual subjugation to colonial rule.

Under colonial rule, those Nahuas who survived the war and first epidemic faced physical, social, and cultural subjugation. Their traditional religious and healing practices, considered heretical by friars, were persecuted. Nahuas practiced healing through religious and material means; they considered them one and the same. We can glimpse some of their healing methods in Book X of the FC, and how earlier drafts to the FC reveal a disagreement about preferred methods between Sahagún and Nahua members of his team. One can detect the voices of the Nahua scholars and elders throughout the drafts of the project. The voice of Sahagún, as the organizer and editor of the project, appears in the drafts, as well, especially in the Spanish column. Today, we have only two preliminary drafts that were written before the final manuscript was completed. A comparison of the final draft, known today as the FC, with the two earlier versions reveals those different voices. In total, there are nine separate sources (three drafts, each containing three texts). The nine texts reveal a process of negotiation as to how to treat certain topics, such as healing.

My research shows that instead of following Sahagún's suggestions on the first draft, the Nahua scholars consulted their own healing authorities and then clearly attributed the content on illness and cures to their expertise. By willfully ignoring Sahagún's suggestion that certain native cures be discredited and abandoned, the Nahua scholars refused to allow this section on healing to privilege Spanish expertise over native practices, and instead documented the knowledge of their own healers. They also clearly established the identity of those healers. The authors added the names and origins of the healers to the second and third drafts. No other section of the FC cites outside sources, much less names the people who participated. The creators of the FC may have decided to cite trusted authorities on that section because of their vast experience with colonial epidemics

The Nahua scholars, elders, and healers who participated in the FC survived the horrifying experience of witnessing the collapse of their communities. The collapse, due in large part to epidemic diseases, reinforced the importance of identifying illnesses and effective cures. The Nahua scholars obviously deferred to their healers as the best authorities, even on epidemics clearly brought by Europeans. Instead of accepting Sahagún's edits, as they had in many other instances, the Nahua scholars chose to preserve the knowledge of indigenous healers. Nahua healers continued to serve important functions throughout the colonial period, despite Spanish efforts to dictate proper healing methods based on European medical models. Despite the involvement of Spanish medical professionals in the quest to stem the tide of deadly disease in New Spain, as explored in chapter two, indigenous peoples continued to suffer and decline in numbers. Massive depopulation began to trouble colonial authorities because the profitability of New Spain rested on the backs of indigenous laborers. Colonial authorities attempted to understand the cause of the depopulation. The documents that they created reveal how people struggled to understand the tremendous loss of life.

The final substantive chapter of this dissertation explores how Nahuas and Spaniards relied on their cultural concepts to understand the epidemics that followed the initial invasion of Mexico-Tenochtitlan. The people of central New Spain understood epidemics according to their respective medical frameworks. These frameworks, explored in the first and second chapter, are articulated in the colonial texts that they created. These very texts reflect the heavy loss of life in Nahua communities. This devastation is reflected in the decline in quality of indigenous pictorial records. It is also documented in the unique and valuable texts of the *Relaciones Geográficas de Indias* (RG). Nahuatl disease terminology appears throughout the Spanish responses to the RG. In his research on Nahua communities after the conquest, Lockhart studied the appearance of

Spanish loanwords in Nahuatl texts over the course of the colonial period, arguing that the adoption of loanwords in predominantly Nahuatl-language documents reveal the extent and intensity of contact between Spaniards and indigenous people. Many of the RG survey responses use Nahuatl loanwords, especially disease terminology. The appearance of terms such as *cocoliztli*, *zahuatl*, and *totomonaliztli* in the Spanish responses is revealing. Responses using Nahuatl terms tended to associate epidemics with the arrival of Europeans. Responses that used Spanish terms such as *viruela* (smallpox) tended to describe Nahua customs as malicious and bad. Fundamentally different responses about the causes of the epidemics in the RG shows that both Spaniards and indigenous people participated in many of the responses. Finally, the responses show that although so many other concepts were easily translated from Nahuatl to Spanish, disease terminology remained untranslatable, subject to different cultural conceptions.

Spaniards drew upon Hippocratic notions to formulate the questions of the RG, and many responders in New Spain replied in a similar fashion. RG questions requested information on the location of towns and whether they could be considered healthy, and inquired about the types of illnesses experienced and the cures for them. One question asked about the character of intelligence, the inclinations, and the modes of living of the local inhabitants. These questions, based on a Hippocratic template, consciously or unconsciously, asked Spaniards to evaluate the health of New Spain. Responders referred to pestilent vapors that caused *cocoliztli*. Many responses traced ill-health to problems of humidity, the combination of hot air and water. Their references to the threat of humidity would have signaled health problems to readers in Spain, whose shared cultural concepts of illness and health allowed them to evaluate disease across the Atlantic. The RG questions were written only in Spanish, but many of the responses were

peppered with Nahuatl terms. One respondent documented Nahua experiences with disease entirely in Nahuatl.

The Nahua historian, don Domingo de San Antón Muñón Chimalpahin Quauhtlehuanitzin, recorded the history of Mexico City in the Nahuatl language. He recorded changes of leadership, storms, earthquakes, plagues, and much more. Chimalpahin's terminology for disease reflected broader cultural attitudes towards illness by this time in the colonial period. He wrote that in 1577 people suffered from a *cocoliztli* that killed babies, children, and grown men, and even a few Spaniards. It was not until much later, in his description of a 1609 epidemic, that Chimalpahin used both the Nahuatl term (*zahuatl*) and the Spanish term (*viruela*) to describe the illness. Over time, he accepted Spanish-loanwords for sickness but he always included the Nahuatl term. His use of mixed terminology reflects the hybrid nature of medical knowledge in Mexico City at the end of the sixteenth century. His descriptions of remedial efforts also reflected both European and indigenous traditions. Medical practices illuminate how Nahuas and Spaniards understood health and illness. Today, in Nahua communities, healers employ many of these same practices to treat their patients. Even in the United States, public health officials are encouraged to consider different cultural perspectives in order to communicate better with their patients.

The "social determinants of health" is a phrase current in the field of Public Health. The US Government publication titled *Healthy People 2020* offers ten-year goals and objectives to provide healthy lives for all Americans. *Healthy People 2020* defines the social determinants as "conditions in the environments in which people are born, live, learn, work, play, worship, and



age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.”<sup>728</sup> At first glance, this definition seems to revive the criteria of airs, waters, and places in the importance it attaches to environmental conditions. One of the overarching objectives of this US government publication is to “create social and physical environments that promote good health for all.”<sup>729</sup> Although the authors clearly separate social and physical environments, they acknowledge that, combined, these factors contribute to the status of human health. They define the social environment as “the aggregate of social and cultural institutions, norms, patterns, beliefs, and processes that influence the life of an individual or community.”<sup>730</sup> Public health scholars thus acknowledge what many already know: that a person’s cultural heritage has an impact on their understanding of illness and health.

In their tacit acknowledgement that culture impacts health, the US government encourages an understanding of social and cultural norms and beliefs. Today doctors can take courses focused on lay health beliefs or read articles on folk illnesses that are part of cultural heritage. Doctors are encouraged to practice cross-cultural medicine; during their time with a patient they “should elicit the patient’s perception of the illness and any alternative therapies he or she is undergoing as well as facilitate a mutually acceptable treatment plan.”<sup>731</sup> Patients’ perceptions of illness and cultural concepts of disease remain important for researchers today, although some authors prefer the phrases “culture-bound syndromes” or “folk illness”—that is, a

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<sup>728</sup> US Department of Health and Human Services. Secretary’s Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2020. *Healthy People 2020: An Opportunity to Address the Societal Determinants of Health in the United States*. July 26, 2010, Section I, unpaginated. Available from: <http://www.healthypeople.gov/2010/hp2020/advisory/SocietalDeterminantsHealth.htm>

<sup>729</sup> Ibid.

<sup>730</sup> Ibid.

<sup>731</sup> Gregory Juckett, “Cross-Cultural Medicine” *American Family Physician*. 2005 Dec 1;72(11):2267.

combination of psychiatric and somatic symptoms that are considered to be a recognizable disease only within a specific society or culture.<sup>732</sup> For patients who identify as Hispanic, one research article encourages health care providers “to consider discussing these illnesses in a non-judgmental manner with patients who present with symptoms that are consistent with these syndromes [culture-bound syndromes].”<sup>733</sup> As if to explain the importance of the cultural turn, several publications cite the statistic that Hispanics or Latinos are the second largest and the fastest-growing minority group in the United States.<sup>734</sup> Medical doctors are being asked to understand folk illnesses such as *susto*, which is found in Mexican and Mexican American culture, reflecting the enduring remnants of a non-western medical culture.

Significantly, even English-language articles on the phenomenon of *susto* retain the Spanish term. Several recent authors maintain the Spanish term even in the titles of their articles.<sup>735</sup> In other words, modern medical researchers choose not to translate from Spanish to English an illness that at one time was found only among the indigenous inhabitants of Mesoamerica. Their research attempts to pin down *susto* to a set of standard biomedical conditions. Some link it to depressive disorders, somatoform disorder [a category of mental

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<sup>732</sup> Bernard Ortiz de Montellano, “Syncretism in Mexican and Mexican-American Folk Medicine” College Station, Tex.: University of Maryland at College Park, 1989.

<sup>733</sup> Bryan P. Bayles, David A. Katerndahl, “Culture-Bound Syndromes in Hispanic Primary Care Patients” *The International Journal of Psychiatry in Medicine* May 22, 2009, 16.

<sup>734</sup> U.S. Census Bureau. Profiles of general demographic characteristics 2000: 2000 census of population and housing: United States. Washington, D.C Population Estimates Program, Population Division.

<sup>735</sup> Gloria Durà-Vilà, Mathew Hodes, “Cross-cultural study of idioms of distress among Spanish nationals and Hispanic American migrants: *susto*, *nervios* and *ataque de nervios*.” *Social Psychiatry and Psychiatry Epidemiology*. 2012 Oct; 47(10):1627-37; Susan C Weller, Roberta D. Baer, Javier Garcia de Alba Garcia, and Ana L. Salcedo Rocha, “*Susto* and *Nervios*: Expressions for Stress and Depression.” *Culture, Medicine and Psychiatry* 32, no. 3 (September 2008): 406–20; Mendenhall, Emily, Alicia Fernandez, Nancy Adler, and Elizabeth A. Jacobs. “*Susto*, *Coraje*, and Abuse: Depression and Beliefs about Diabetes.” *Culture, Medicine and Psychiatry* 36, no. 3 (September 2012): 480–92.

disorder], or hypoglycemia. In his 2005 article on cross-cultural medicine, Dr. Gregory Juckett places *susto* in a list of traditional Latino diagnoses. He explained it consisted of fright-induced “soul loss.” which he explained as post-traumatic illness (e.g., shock, insomnia, depression, anxiety). He continues that the traditional treatment for the illness was a sweeping purification *barrida* ceremony, to be repeated until the patient improves.<sup>736</sup> It is ironic to see a medical doctor explaining a Nahua illness and broom cleansing ritual to an audience of American doctors who seek to communicate with their patients. Dr. Juckett attempted to characterize a Mesoamerican illness, but he paid little attention to how Latinos themselves defined *susto*.

Dr. Lemly, Dr. Spies, et. al find that Latinos associate *susto* with another type of illness: Type II Diabetes.<sup>737</sup> Several symptoms of Type II Diabetes include irritability and fatigue, symptoms that are consistent with the descriptions of *susto* in this dissertation. In their 2016 article on the causes that Spanish-speaking patients attribute to diabetes, Dr. Concha, etl al. explain that understanding cultural diabetes causation beliefs, such as *susto*, can improve Hispanic/Latino patient management.<sup>738</sup> Another pair of authors in a 2015 publication examine the herbal remedies of *sabila* (aloe vera) and *nopal* (prickly pear cactus), two products widely used in Mesoamerica, and acknowledge research that confirms their efficacy in lowering sugar levels. The authors continue to argue that awareness about “susto beliefs...and development of culturally sensitive communication skills are essential for nurse practitioners to effectively assist

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<sup>736</sup> Gregory Juckett, “Cross-Cultural Medicine” *American Family Physician*. 2005 Dec 1;72(11):2270.

<sup>737</sup> Megan Lemley, Lori A. Spies, “Traditional beliefs and practices among Mexican American immigrants with type II diabetes: A case study.” *Journal of American Association of Nurse Practitioners*. 2015 Apr. 27 (4): 185-9.

<sup>738</sup> Jeannie B. Concha, Sallie D. Mayer, Briana R. Mezuk, Danielle Avula, “Diabetes Causation Beliefs Among Spanish-Speaking Patients” *Diabetes Education* 2016 Feb. 42(1): 116-25.

patients in this population to achieve their glycemic goals.”<sup>739</sup> These research articles claim that medical professionals are more effective when they blend cultural understanding and medical research. The fact that their research on *susto*, an illness with undeniable roots in Mesoamerican indigenous cultures, speaks to the cultural longevity of Mesoamerican medical frameworks in Mexico and the United States.

To conclude, this dissertation uses a wide variety of Nahuatl and Spanish texts to understand how each side employed their own cultural concepts of disease to understand the epidemics of the early colonial Mexico. My research adds a distinctly Mesoamerican voice to conversations in the History of Science field about cultural notions of contagion and survival that currently focus almost exclusively on Greek-Roman and European notions of epidemic disease. Similarly, indigenous voices in the history of Spanish American science can be found in the research of Jorge Cañizares-Esguerra, Daniella Bleichmar, and others.<sup>740</sup> My work brings indigenous Latin Americans into the study of Atlantic History, focusing on Nahuatl narratives of conquest and epidemics.<sup>741</sup> These Nahua narratives have long been ignored by historians of early modern Europe, despite the fact that the FC has been preserved in the city of Florence for more

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<sup>739</sup> Megan Lemley, Lori A. Spies, “Traditional beliefs and practices among Mexican American immigrants with type II diabetes: A case study.” *Journal of American Association of Nurse Practitioners*. 2015 Apr. 27 (4): 185-9.

<sup>740</sup> Daniela Bleichmar, *Visible Empire: Botanical Expeditions and Visual Culture in the Hispanic Enlightenment*. Chicago: University of Chicago Press, 2012; Mauricio Nieto Olarte, *Remedios para el imperio: Historia natural y la apropiación del nuevo mundo*. Columbia: Universidad de Los Andes: 2006; Jorge Cañizares-Esguerra, “Iberian Colonial Science” *Isis*, 1 (March 2004): 64-70; *The Mexican Treasury: The Writings of Dr. Francisco Hernández*. eds. Simon Varey, Rafael Chabrán, and Cynthia L. Chamberlin. Stanford: Stanford University Press, 2000; Francisco Hernández *Searching for the Secrets of Nature: The Life and Works of Dr. Francisco Hernández*. eds. Simon Varey, Rafael Chabrán, Dora B. Weiner. Stanford: Stanford University Press, 2000.

<sup>741</sup> Little explored in this work is the nature and disputed origins of the sexually transmitted disease of syphilis. Although some argue for the longer history of syphilis in Europe, Lisa Sousa’s recent book explores deeply imbedded Nahua cultural concepts associated with sexually transmitted diseases. See Kristin N. Harper, Paolo S. Ocampo, Bret M. Steiner, Robert W. George, et. al. “On the Origin of the Treponematoses: A Phylogenetic Approach” January 15, 2008; Lisa Sousa, *The Woman Who Turned into Jaguar and Other Narratives of Native Women in Archives of Colonial Mexico*. Palo Alto: Stanford University Press, 2017, 126.

than 400 years. Finally, my most important contribution in the dissertation lies in the field of Ethnohistory. In viewing the history of the epidemics of the conquest and early colonial period through the lens of Nahuatl concepts of disease, I show that Nahuas squarely blamed the polluting nature of the invaders for the epidemic. Nahuas wrote in post-conquest texts that the diseases arrived with the Spaniards and that they continued to occur because Spaniards forced Nahuas and other Mesoamericans to abandon certain hygiene and health practices, lifeways that are now viewed as salubrious. Spaniards prohibited bathing, altered the diet, and changed the lives of Nahuas in ways that are difficult to fathom. Many texts indicate that Nahuas blamed these changes for their debilitated state. Far from being bewildered and doom-ridden, Nahuas used their own cultural concepts and methods of healing to understand the causes and impact of the sixteenth century epidemics that changed everything.

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