7 The Ten Plagues of the New World

The Sensemaking of Epidemic Depopulation in Sixteenth-Century Mesoamerica

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Abstract

Through a study of the epidemics that devastated Mesoamerica's indigenous population in the sixteenth century, this chapter develops 'sensemaking' as a useful analytical category for the history of disasters. To do so, it revisits established sources like chronicles, medical handbooks, and indigenous painted annals to investigate the discourses produced by different social groups in Spanish colonial society in their attempts to explain why and how the epidemics had occurred. Comparing these groups (medical professionals, clerics, conquest elites, indigenous intellectuals) under the premise of competition for dominance in a 'fractal society', the chapter draws conclusions regarding the social dimension of disaster. It suggests that while different social groups shared certain basic ideas about epidemic disease, they deployed these in different ways to support their respective positions. These disparate discourses are connected by their status as sensemaking, a category that serves an established function within the cycle of disaster and response.

Keywords

New Spain – Spanish empire – indigenous Mexicans – epidemic disease – disaster cycle

In 1519 Spanish *conquistador* Hernán Cortés entered Mesoamerica, a cultural sphere corresponding to today's central and southern Mexico, Guatemala, Nicaragua, Honduras, and Belize. Within the span of two years, he and his indigenous allies overthrew the 'Aztec' Triple Alliance that had been the dominant power in the region until then and claimed its territory for

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the Spanish crown. Mesoamerica became the centrepiece of the colony of New Spain, yet as it did, the number of its indigenous inhabitants dropped rapidly. Exact figures continue to be debated, but even lower estimates put the rate of decline over the course of the sixteenth century at 50 per cent, with the highest at 96 per cent.[1]

Multiple factors played into this depopulation – the war of conquest itself, the colonial labour regime, etc. An undeniably major one, however, was disease. Throughout the sixteenth century, Mesoamerica was struck by numerous epidemics. Scholars have devoted copious efforts over the past decades to reconstructing the chronology of these epidemics and calculating their demographic effect.[2] This work has been trailblazing, firmly establishing the significance of disease in indigenous depopulation and making immense contributions to the history of medicine. I summarise some of its results in Table 1, outlining the major epidemics identified.

However, the focus on nosology and demography has caused scholars to neglect other aspects of the epidemic experience. In particular, the social meaning-making surrounding sixteenth-century Mesoamerican epidemics remains barely explored.[3] In the following study, I offer a preliminary analysis of that aspect. I investigate the discourses of rationalisation and explanation that contemporaries created in the face of devastating disease. To do so, I tap into many of the same sources that have been used for quantitative analyses of the epidemics: the chronicles of Spanish and indigenous Mesoamerican authors as well as medical handbooks and reports to the crown, from sixteenth-century eyewitness accounts to seventeenth-century retrospectives.

1 See the overview in Robert McCaa, 'The Peopling of Mexico from Origins to Revolution', in Michael R. Haines and Richard H. Steckel (eds), *A Population History of North America* (Cambridge: Cambridge University Press, 2000), 241–304, at 252–58.

2 See the overviews in Noble David Cook, *Born to Die. Disease and New World Conquest, 1492–1650* (Cambridge: Cambridge University Press, 1998); shorter but more recent: W. George Lovell, 'Columbus and Covid-19. Amerindian Antecedents to the Global Pandemic', *Americanía. Revista de Estudios Latinoamericanos de la Universidad Pablo de Olavide de Sevilla* 11 (2020), 4–31.

3 The studies that come closest to this topic are Martha Few, 'Indian Autopsy and Epidemic Disease in Early Colonial Mexico', in Rebecca P. Brienen and Margaret A. Jackson (eds), *Invasion and Transformation. Interdisciplinary Perspectives on the Conquest of Mexico* (Boulder: University of Colorado, 2008), 153–65, which offers thoughts on the connection of epidemic discourse to processes of colonial othering, and the two pieces by Sandra Elena Guevara Flores, 'La construcción sociocultural del cocoliztli en la epidemia de 1545 a 1548 en la Nueva España', PhD dissertation, Universitat Autònoma de Barcelona, 2017 and 'A través de sus ojos. Médicos indígenas y el cocoliztli de 1545 en la Nueva España', *eHumanista* 39 (2018), 36–52, which discuss the diagnostic perspectives indigenous Mesoamericans themselves developed.

I thus engage in the research approach historian Matthew Restall calls 'revisitation', a re-reading of established, mostly Spanish sources that breaks through their seemingly monolithic agenda.[4] Indeed, the society of sixteenth-century New Spain was not unified in its purpose but, as historian Serge Gruzinski phrases it, 'fractal', meaning unstable, heterogeneous, and hybrid. Not just colonisers and colonised clashed; the Spanish themselves were competing against each other.[5] Below I will show how different subsets of that society had different bases for and different aims in explaining the epidemics.

To do so, I rely on some systematisations I made in a previous study, where I outlined the major dynamism of discourse as that between the *conquistadores* and their settler successors, the missionaries, and indigenous intellectuals.[6] In the case of epidemic rationalisation, other currents must also be considered, most notably that of medical specialists. Even though competing, these different groups existed within a common social framework and conditioned each other. To explore their dynamic, I introduce thoughts and methodology from the field of history of disasters, most importantly the category of *sensemaking*. This concept allows me to trace larger patterns manifest within the Mesoamerican epidemic experience.

My study thus has two primary aims: First, to offer an outline and analysis of the sensemaking of the sixteenth-century Mesoamerican epidemics as a complex social contest. Second, to use these insights into the idea of sensemaking to explore its value as a general analytical tool in the history of disasters. I begin my study by defining what I mean by sensemaking and how it fits into broader explanations of disaster response. I then examine the practical responses of New Spain's authorities to the sixteenth-century epidemics as a manifestation of their ideas about disease. This serves as a basis to discuss how four different social groups – medical professionals, members of the clergy, conquest elites, and indigenous intellectuals – applied and evaluated these ideas. Throughout, I show that sensemaking was always not just an attempt to understand but also to impact society and one's status within it.

4 Matthew Restall, 'The New Conquest History', *History Compass* 10: 2 (2012), 151–60, at 155.

5 Serge Gruzinski, 'Las repercusiones de la conquista. La experiencia novohispana', in Carmen Bernard (ed.), *Descubrimiento, conquista y colonización de América a quinientos años* (Mexico City: Fondo de Cultura Economica, 1998), 148–71, at 151, 153, 167.

6 Florian Wieser, '"… und ich weiß, dass sie alle Sodomiten sind". Diskurse von Macht, Männlichkeit und Homosexualitäten in Darstellungen des frühkolonialen Neuspanien (Mexiko)', *Invertito. Jahrbuch für die Geschichte der Homosexualitäten* 19 (2017), 10–39.

Theoretical Considerations

I derive the concept of sensemaking from economic historian John Singleton. In a 2015 study, he formulated his Disaster Management Cycle (DMC), a multi-stage model illustrating how societies react to disasters and how these reactions shape the likelihood of future catastrophe. The DMC articulates crucial ways of thinking about disasters, including epidemics, highlighting the human contribution to their unfolding. It builds upon various earlier disaster-cycle models, including ones used by governments to help understand and combat disasters in the present. However, Singleton argues that these have neglected an important element of disaster response: that of 'apportionment of blame', in which certain individuals or groups within society are made into scapegoats for what has happened. He makes this stage the sixth in his cycle, occurring in the aftermath of relief measures.[7]

As important as Singleton finds the 'apportionment of blame', it is precisely this aspect of his DMC that has been most sharply criticised. The authors of *Disasters and History* argue that scapegoating is not a necessary part of disaster response and challenge the notion of a uniform cycle through which all disasters develop.[8] It is in reaction to these criticisms that I propose Singleton's notion of sensemaking can be made useful. Singleton writes that sensemaking is necessary for 'decision making', the third stage of his cycle, which directly follows the disastrous event itself. To initiate any measures that combat the unfolding of disaster, society must first develop an understanding of what is happening and why.

However, I suggest that Singleton misses an important implication here. What he calls 'apportionment of blame' is itself a form of sensemaking, a search for disaster causation. This search does not necessarily end with certain individuals serving as scapegoats. Rather, it is a quest for understanding that manifests throughout the disaster experience, not just at a single stage of it, and that informs the measures taken from first relief efforts to the long-term rebuilding of society. As the authors of *Disasters and History* show, various social groups engage in self-serving negotiation and competition to formulate such measures.[9] Sensemaking, in the broadened

7 John Singleton, 'Using the Disaster Cycle in Economic and Social History', in A.T. Brown, Andy Burn, and Rob Doherty (eds), *Crises in Economic and Social History. A Comparative Perspective* (Woodbridge: The Boydell Press, 2015), 53–78.

8 Bas van Bavel, Daniel R. Curtis, Jessica Dijkman, Matthew Hannaford, Maïka de Keyzer, Eline van Onacker, and Tim Soens, *Disasters and History. The Vulnerability and Resilience of Past Societies* (Cambridge: Cambridge University Press, 2020), 33.

9 van Bavel et al., *Disasters and History,* 3, 6–7, 26, 36–38, 86, 99, 145, 152, 178–79.

definition I develop here, is thus any discourse that investigates the causes of a specific disaster. As such, it serves a double purpose. It is certainly an attempt at explanation and thus enables informed action. At the same time, however, it is also an attempt to use that action to change society to one's own benefit.

Thus, while I borrow the concept of sensemaking from Singleton, I redefine it and use it to move away from the formulaic rigidity of his DMC. In doing so, I create an analytical tool that helps me frame the sources I examine and relate them to each other as expressions of a certain historical position: that of members of a society affected by disaster who tackle the questions that their situation entails. The actions they take are based on the answers they find; as disaster historian Virginia García Acosta observes, discursive and practical disaster responses condition each other.[10] Thus, it is appropriate for me to begin my exploration of the sensemaking of sixteenth-century Mesoamerican epidemics not with theories of causation but with the relief measures taken.

Combatting Epidemic Disease, Physically and Spiritually

In the context of sixteenth-century New Spain, relief measures are best attested for the 1576 epidemic. During that period, Viceroy Martín Enríquez de Almanza provided flour and bread to the sick, had Mexico City cleaned of refuse, and convened 'all doctors' to investigate the origins of the disease.[11] This included ordering autopsies.[12] Monastic orders also provided medical and spiritual assistance to the sick.[13] Their application of the sacraments

10 Virginia García Acosta, 'Divinidad y desastres. Interpretaciones, manifestaciones y respuestas', *Revista de Historia Moderna. Anales de la Universidad de Alicante* 35 (2017), 46–82, at 53.

11 'todos los medicos', Archivo General de Indias, Seville (hereafter AGI), México, 19, N. 177, no. 22 (31 October 1576). See also AGI, México, 20, N. 43 (30 October 1580); *Geschichte der Azteken. Codex Aubin und verwandte Dokumente*, ed. and trans. Walter Lehmann and Gerdt Kutscher (Berlin: Gebrüder-Mann-Verlag, 1981), 54 (= *Codex Aubin*, fol. 65v); Fr. Jerónimo de Mendieta, *Historia eclesiástica indiana*, ed. Joaquín García Icazbalceta (Mexico City: Antigua Librería, 1870), 517.

12 Few, 'Indian Autopsy', 155. Compare Alonso López de Hinojoso, *Svmma y recopilacion de cirvgia, con vn arte para sangrar, y examen de barberos* (Mexico City: Pedro Balli, 1595), fol. 150r.

13 Agustín Dávila Padilla, *Historia de la fvndacion y discvrso de la provincia, de Santiago de Mexico de la Orden de los Predicadores por las vidas de sus varones insignes casos notables de Nueva España* (2nd ed., Brussels: Jan van Meerbeeck, 1625), 157; Fr. Juan de Grijalva, *Crónica de la orden de N.P.S. Augustin en las prouincias de la nueua españa* (n.p., n.d.), fol. 68v; Mendieta, *Historia eclesiástica*, 515–17; Juan Sánchez Baquero, S.I., 'Relación breve del principio y progreso de la provincia de Nueva España de la Compañía de Jesús', in Francisco González de Cossío (ed.),

was seen as at least as important as physical healing and was recommended by doctors just as much as by priests.[14]

Such sincere belief in religion's healing power explains why processions were one of the most prominent steps taken against epidemics. Historian Martha Few considers them merely 'designed to calm the rattled capital',[15] but that overlooks the significance assigned to them by contemporaries. Historian Abigail Agresta notes that, for the plague epidemics in late medieval València, processions were organised even before the seemingly more practical measure of street cleaning.[16] Indeed, among contemporaries, Augustinian friar Juan de Grijalva called the 1576 procession of the image of the Virgin of Remedios to Mexico City the 'only remedy' that showed effect, and Tlaxcaltec historiographer Diego Muñoz Camargo credited it with lowering the death toll in that year compared to other epidemics.[17]

Such measures reveal a worldview that combined the Galenic-Hippocratic framework of medicine with encompassing Christian piety. The medical paradigm at work here postulated that the human body functioned because of the fluctuations of its humours. Sickness was caused by humours being either imbalanced or outright corrupted. Viewed through the lens of Catholic Christianity, this corruption could have both physical and spiritual causes. One material cause was the inhalation of miasma, malignant air generated through astronomical and seismological phenomena.[18] Yet miasma could also exude from an immoral person.[19]

Colonial officials fielding disaster response thus operated within a framework in which medicine and religion were both considered authoritative on the nature of epidemic disease. The claims they made were sometimes competing and sometimes complementary, but at no point without ulterior

Crónicas de la Compañía de Jesús en la Nueva España (1957; first reprint of 3rd ed., Mexico City: Universidad Nacional Autónoma de México, 2007), 83.

14 See López de Hinojoso, *Svmma*, fol. 152r.

15 Few, 'Indian Autopsy', 155.

16 Abigail Agresta, 'From Purification to Protection. Plague Response in Late Medieval Valencia', *Speculum* 95: 2 (2020), 371–95, at 371.

17 'vnico remedio', Grijalva, *Crónica de la orden*, fol. 85v; 'Diego Muñoz Camargos Chronik "Descripción de la Provincia y Ciudad de Tlaxcala" (ca. 1562–1592)', vol. 2, ed. and trans. Christine von Wantoch Rekowski-Santos, PhD dissertation, University of the Saarland, 2002, 36.

18 Agresta, 'From Purification to Protection', 378–79; Jorge Cañizares-Esguerra, 'New World, New Stars. Patriotic Astrology and the Invention of Indian and Creole Bodies in Colonial Spanish America, 1600–1650', *American Historical Review* 104 (1999), 33–68, at 36–37; Elsa Malvido and Carlos Viesca Treviño, 'La epidemia de cocoliztli de 1576', *Historias México* 11 (1985), 27–33, at 31.

19 Annemarie Kinzelbach, 'Infection, Contagion, and Public Health in Late Medieval and Early Modern German Imperial Towns', *Journal of the History of Medicine and Allied Sciences* 16: 3 (2006), 360–89, at 377.

motives. When doctors and clergy as well as other social groups engaged in sensemaking by developing theories of epidemic causation, they did so not just to aid in combatting this and future disasters but also to protect their own long-term interests in a constantly struggling 'fractal society'.

The Medical Professionals

Medical professionals of different backgrounds were among those who received most official legitimacy in explaining and combatting the epidemics. Viceroys and even the Spanish king trusted their expertise and employed them to apply it. This endowed their statements with a privileged status; the authority they carried made their academic sensemaking the basis for that of others.

Once again, the sources are clearest for the 1576 epidemic. Two primary medical eyewitnesses report on it, eminent experts hired to analyse the epidemic through autopsies of indigenous victims: the physician Francisco Hernández de Toledo and the surgeon Alonso López de Hinojoso. Their attempts at sensemaking are overall similar but differ on some details. Hernández speaks of the 'dry and calm' weather in 1576 having created 'a real breeding ground for rotting and corruption'.[20] This explanation found its way into the official account given by Viceroy Enríquez to the king.[21] Similarly analysing environmental causes, López specifies that the corruption had come about because of 'conjunctions of stars or … comets'.[22] This already implies a certain value judgement, as historian Jorge Cañizares-Esguerra has pointed out that the early modern discourse of American astrology drew a connection between the more 'malignant' stars above that part of the world and the weak, sinful, inferior nature of its native inhabitants.[23]

Indeed, both Hernández and López go on to blame the epidemic on indigenous victims themselves. Hernández considers the 'most sordid food' the natives ingested, including alcohol, chili, and corn, a principal cause of their humoral imbalance.[24] López meanwhile sees indigenous tobacco consumption as the culprit. He explains that smoking not only upsets

20 Francisco Hernández de Toledo, *The Mexican Treasury. The Writings of Dr. Francisco Hernández*, ed. Simon Varey, trans. Rafael Chabrán, Cynthia L. Chamberlin, and Simon Varey (Stanford, CA: Stanford University Press, 2000), 84.

21 AGI, México, 19, N. 177, no. 22 (31 October 1576).

22 'conjunciones de estrellas o … cometas', López de Hinojoso, *Svmma*, fol. 151v.

23 Cañizares-Esguerra, 'New World, New Stars', 40–45.

24 Hernández de Toledo, *The Mexican Treasury*, 84. This can be compared to a 1571 example from the German city of Nördlingen, where the dietary habits of the city's poor were blamed

the body's functions but also, due to a trick of the Devil, masks the pain that would normally warn one of disease.[25] Thus, physiological and moral explanations are again blended here. That both Hernández and López assign concrete blame for the epidemic reveals the power play at work in their sensemaking.

Both men were highly respected, Hernández as former royal physician and López as a veteran of hospital practice in Mexico.[26] Yet both nonetheless had to defend the validity of their craft and the social position derived from it, not least against each other. By the late sixteenth century, an intense conflict for authority was raging in the Spanish world between physicians trained in the classical theories of Hippocrates and Galen and surgeons who assimilated new knowledge from empirical observation.[27] As Few has argued, by physiologically and morally othering indigenous Mesoamericans and showing the superiority of the European scholar to the Native American disease victim and thus the former's ability to comprehend the latter's alien afflictions, both Hernández and López insisted on the continued need for their respective fields of medical practice.[28] They made claims to authority and thus created a discourse of sensemaking that others drew upon.

The Clergy

Besides medical professionals, the clerics were most directly on the frontlines of the battle against epidemic disease. In investigating the causes of that disease, they were far from ignoring the Hippocratic-Galenic model. Yet they usually emphasised explanations based on Christian moralism over physiological ones. Only the Jesuit Juan Sánchez Baquero, writing at the turn of the seventeenth century, presents a clear synthesis of Hippocratic-Galenic and Christian religious approaches. He mentions that a conjunction of Mars and Saturn which specifically affected the melancholic complexions of the natives was blamed for the 1576 epidemic.

for the epidemic they were suffering from; see Kinzelbach, 'Infection, Contagion, and Public Health', 383.

25 López de Hinojoso, *Svmma*, fol. 151r–v.

26 Few, 'Indian Autopsy', 156–57.

27 See Michele L. Clouse, *Medicine, Government and Public Health in Philip II's Spain. Shared Interests, Competing Authorities* (Oxon and New York: Routledge, 2011), 75; José Luis Fresquet Febrer, 'La práctica médica en los textos quirúrgicos españoles en el siglo XVI', *Dynamis* 22 (2002), 251–77.

28 Few, 'Indian Autopsy', 159–62.

However, there were also, he says, those who 'attributed it to the scourge and punishment of God, who wanted to take vengeance for the idolatry and cruelty of these people'.[29]

This argument, viewing the near extinction of indigenous Mesoamericans as just punishment for their pagan past, may seem the most familiar to the modern observer, but in truth the situation is remarkably complex. Its most prominent rendition was delivered by Franciscan missionary Motolinía shortly after the Conquest. He considered the epidemics occurring in the 1520s and 1530s the first of the Ten Plagues of the New World.[30] With these plagues, Motolinía argues, God was punishing indigenous Mesoamericans for the human sacrifices they had practised before Christianisation. Yet Motolinía also notes that the Ten Plagues of the New World were harsher than those of Egypt, with all ten of them being deadly instead of one, implying some doubt about how deserved they were.[31] Thus, he suggests that God was punishing the whole world for 'our sins', not those of a specific group.[32]

This opened the way for a different kind of moral argument, one followed by most religious authors after Motolinía. Sánchez himself states that 'there are very strong reasons to think that it is not just the faults of the Indians that Our Lord is punishing with this scourge'.[33] The natives were going to Heaven, he argues, whereas the Spanish languished in the absence of their labourers.[34] The Augustinian Grijalva made this same point even more strongly. Referencing the plague that struck Israel under King David (1 Chronicles 21), he argues that the Spanish were the true subject of God's wrath, their vassals taken away as punishment for their vanity and greed. At the same time, however, God 'always mixes justice with His mercies'. In death, the natives 'were freed from a subject life' as reward for their speedy conversion to Christianity.[35]

The Franciscan Jerónimo de Mendieta wholeheartedly agreed, stating that 'God sent them the pestilence not for their ill but for their good'. This way, 'our

29 'lo atribuyeron a azote y castigo de Dios, que quiso tomas venganza de la idolatría y crueldad de esta gente', Sánchez Baquero, 'Relación breve', 80.

30 Motolinía (= Fr. Toribio de Benavente), *Memoriales* (*Libro de oro, MS JGI 31*), ed. Nancy Joe Dyer (Mexico City: El Colegio de México, 1996), 137–38.

31 Motolinía, *Memoriales*, 146.

32 Motolinía, *Memoriales*, 405, 408.

33 'hay muy fuertes razones para pensar no fueran solas las culpas de los indios las que castigó Nuestro Señor con este azote', Sánchez Baquero, 'Relación breve', 81.

34 Sánchez Baquero, 'Relación breve', 86.

35 'siempre mezcla la justicia con sus misericordias', 'se librauà de una vida sujeta', Grijalva, *Crónica de la orden*, fol. 68v.

God is filling the seats of Heaven in order to end the world'.[36] Far from being punished sinners, to these missionaries, the natives were beloved by God and taken up to Him in preparation for the coming apocalypse. This point had already been stated by the Dominican Domingo de Betanzos in 1545; when considering the prophecy in Matthew 24, he links the disappearance of Native Americans to the coming of the end times in seventy years or less.[37]

The clergy of colonial New Spain thus cited the Bible as authority in much the same way that medical men did the classics of medicine. Their respective worldviews were not exclusive but rather rested on common assumptions.[38] Yet they drew different conclusions from this shared basis, ones that mapped onto their own interests as parties to early colonial power struggles. The missionary fathers of New Spain were aware of how incomplete their evangelisation of indigenous Mesoamericans was and at times complained bitterly about this situation. However, they had no interest in conceiving of the natives as unredeemable pagans or naturally disposed towards wickedness.[39] That God was just and disaster a manifestation of His justice was unquestioned.[40] Yet by shifting the cause of divine wrath from indigenous victims of disease to Spanish victims of labour shortage, the clergymen could acknowledge that wrath without delegitimising their missionary efforts as wasted upon the sinful and unworthy.

Nonetheless, this was not a unified line of argument. Motolinía, one of the first to attempt a sensemaking of the epidemics, remained ambiguous about whose sins had angered God. Meanwhile, the Dominican Bernardo de Santa María seems to have fully embraced the view of indigenous bodies as anatomically inferior. He co-authored the *Relación Geográfica* ('Geographic Account') for Nexapa in Oaxaca, one of a series of descriptions of colonial towns for administrative use, which were created in the 1570s at the order of King Philip II. This *Relación de Nexapa* ('Account of Nexapa') suggests that epidemics occurred 'because by their nature [the natives] always carry a terrible stench with them, enough to engender by itself whatever pestilence'.[41]

36 'la pestilencia se la envia Dios, no por su mal sino por su bien', 'va hinchiendo muestro Dios de ellos las sillas del cielo para concluir con el mundo', Mendieta, *Historia eclesiástica*, 518.

37 Fr. Domingo de Betanzos, 'Carta de Fray Domingo de Betanzos', in Joaquín García Icazbalceta (ed.), *Colección de documentos para la historia de México*, vol. 2 of 2 vols (Mexico City: Antigua Librería, 1866), 198–201. See also Dávila Padilla, *Historia de la fvndacion*, 156.

38 e.g. Sánchez Baquero's appraisal of astrology as an instrument of God at 'Relación breve', 80.

39 Wieser, '"… und ich weiß"', 29–30.

40 Compare García Acosta, 'Divinidad y desastres', 47–50.

41 'porq[ue de] su natural traen siempre consigo una hedentina pésima, bastante para engendrar en sí cualquiera pestilencia', René Acuña (ed.), *Relaciones geográficas del siglo XVI*, vol. 2 (Mexico City: Universidad Nacional Autónoma de México, 1982–88), 352.

This is a miasmic explanation and, unlike most authored by members of the clergy, one reflecting negatively upon indigenous Mesoamericans. Thus, the sensemaking discourses produced by different groups at all times overlapped and fed into each other.

The Conquest Elite

Although Cortés rarely passed up an opportunity to justify his conquest of Mesoamerica with the alleged sinfulness of the natives, he offered no explanation for the 1520 smallpox epidemic, even though it aided him greatly in achieving his victory.[42] Possibly, he remained silent because his own indigenous allies were affected by the disease before his enemies were. Some of those around Cortés, however, were more candid. The *conquistador* Francisco de Aguilar plainly stated that 'our God was served, as the Christians were very much tired by the war, to send them smallpox, and among the Indians came a great pestilence'.[43] Here, epidemic disease is God's way of helping Christianity triumph over paganism. Somewhat pettier yet still invoking higher justice, Cortés' biographer Francisco López de Gómara wrote that 'here they paid for the syphilis that they had given to ours'.[44]

Yet López also delivered a complementary explanation for how smallpox came to Mesoamerica. Cortés had begun his conquest of Mexico without official license (explaining his heightened need to justify himself), and his superior, Governor of Cuba Diego Velázquez de Cuéllar, had sent Pánfilo de Narváez to capture him. Cortés swiftly defeated Narváez, but by López's account, there was still some damage done. Among Narváez's troops, López relates, had been 'a black man with smallpox' who subsequently passed the illness on to the natives.[45] This account is echoed by the *conquistador*

42 Compare Hernán Cortés, *Cartas de relación*, ed. Mario Hernández (Madrid: Historia 16, 1985), 188. For an example of Cortés' rhetoric of native sin, see Wieser, '"… und ich weiß"', 19. For the military importance of the epidemic, see Cook, *Born to Die*, 67–69; Robert McCaa, 'Spanish and Nahuatl Views on Smallpox and Demographic Catastrophe in Mexico', *The Journal of Interdisciplinary History* 25: 3 (1995), 397–431, at 411.

43 'con esto fue nuestro Dios servido, estando los cristianos harto fatigados de la guerra, de enviarles viruelas, y entre los indios vino una grande pestilencia', Fr. Francisco de Aguilar, *Relación breve de la conquista de la Nueva España*, ed. Jorge Gurría Lacroix (Mexico City: Universidad Nacional Autónoma de México, 1977), 96.

44 'pagaron aquí las bubas que pegaron a los nuestros', Francisco López de Gómara, *La conquista de México*, ed. José Luis de Rojas (Madrid: Historia 16, 1987), 227. This reason is also cited, though in a more doubting tone, in Mendieta, *Historia eclesiástica*, 514.

45 'un negro con viruelas', López de Gómara, *La conquista de México*, 226.

Bernal Díaz del Castillo and by Motolinía, who as one of the first Franciscan missionaries was personally favoured by Cortés.[46]

It is tempting to assume greater validity for this account, which seems to conform to modern ideas of contagion. Yet it coexisted with theories of divine punishment, sometimes in the same text, and served the same purpose as these. Those who had led the conquest of Mexico needed to justify it to continue enjoying their stewardship of indigenous labour. This justification had to be both general, depicting indigenous Mesoamericans as sinners worthy of subjugation, and specific, presenting Cortés and his men as in the right and those who had opposed them in the wrong. The 1520 epidemic among the natives was well deserved, these authors affirmed, yet it had been caused not by the conqueror Cortés but his rival Narváez. Thus, the sensemaking of the conquest elite explained epidemic causation from social relations and treated disaster as a confirmation of existing hierarchies. That the concrete agent of contagion is here a black man seems particularly appropriate.[47] Sickness was passed from one racial inferior to another and thus served as proof of that very inferiority, in turn justifying the exploitation of indigenous (and black) labour on which the conquest elite depended.

The Indigenous Intellectuals

The fact that a large portion of sensemaking for the Mesoamerican epidemics revolved around the relative culpability of indigenous people makes the question of their own perspective all the more pressing. However, while indigenous Mesoamerican societies had their own intricate hierarchies and factionalisms, which were not so much superseded by as incorporated into the colonial state, the available sources represent only a fraction of that complexity. Whether first-hand accounts in indigenous languages and Spanish or second-hand reports communicated by Spanish observers, they come overwhelmingly from the indigenous nobility.

This indigenous elite was divided among countless ethnic groups, each seeking to advance the agenda of their respective family and city-state, yet

46 Bernal Díaz del Castillo, *Historia verdadera de la conquista de la Nueva España*, vol. B, ed. Miguel León-Portilla (Madrid: Historia 16, 1984), 479; Motolinía, *Memoriales*, 137.

47 For more thoughts on this, see Thomas Franke, 'The Other Early Modern Pandemic. Slavery, Colonialism, and Novel Coronavirus', *The Electronic Sixteenth Century Journal*, published online 25 August 2020, https://www.escj.org/blog/other-early-modern-pandemic-slavery-colonialism-and-novel-coronavirus.html (accessed 3 April 2023).

it was also united by its relationship to the colonisers. Indigenous nobles were cultural mediators. They collected taxes for their Spanish superiors and received a share. They thus also closely associated with missionaries and adopted elements of Spanish culture, becoming multiculturally and multilingually adept. They used these cultural resources to defend their own position. Their aim was to integrate with the colonial state in a way advantageous to themselves, and thus they acted both as enforcers of oppression and as champions of traditional rights as it suited them.[48]

Perhaps the most direct statements of indigenous mentality are the central Mexican painted chronicles, as they were a part of a pre-Conquest tradition that continued to be produced throughout the sixteenth century. Some were combined with written text in the dominant Nahuatl language, while others remained purely pictographic. Their primary function was to serve as the memory of their communities, recording noteworthy events, including disasters.[49] However, by their very nature, they do not offer theoretical explanations of the epidemics like Spanish accounts. As art historian Elizabeth Hill Boone has explained, the painted chronicles circumvent language and instead create meaning through the relationships of symbols to each other.[50]

Numerous painted chronicles contain pictographs depicting the epidemics. These have been studied by historian of science Sandra Elena Guevara Flores for information on disease symptoms.[51] Two, however, can also be used to approach indigenous sensemaking, as both single out epidemic disease as special and different from other causes of death. The usual pictograph marking someone's death is a body wrapped up in cloth for burial, and both chronicles record most deaths this way. Yet for certain records of epidemic disease, they vary the symbol. Thus, the *Codex Telleriano-Remensis* visualises the 1545 epidemic with a large pile of such bodies, one stacked upon the other (Fig. 7.1), expressing a nameless

48 Gabriela Ramos and Yanna Yannakakis, 'Introduction', in Ramos and Yannakakis (eds), *Indigenous Intellectuals. Knowledge, Power, and Colonial Culture in Mexico and the Andes* (Durham, NC: Duke University Press, 2014), 1–17; Peter B. Villella, *Indigenous Elites and Creole Identity in Colonial Mexico, 1500–1800* (Cambridge: Cambridge University Press, 2016), 4–5, 98–99, 113.

49 James Lockhart, *The Nahuas after the Conquest. A Social and Cultural History of the Indians of Central Mexico, Sixteenth through Eighteenth Centuries* (Stanford, CA: Stanford University Press, 1992), 345–51, 376–78.

50 Elizabeth Hill Boone, 'Introduction. Writing and Recording Knowledge', in Elizabeth Hill Boone and Walter D. Mignolo (eds), *Writing without Words. Alternative Literacies in Mesoamerica and the Andes* (London: Duke University Press, 1994), 3–26, at 8–9, 15. See also the discussion of Boone's method in Guevara Flores, 'La construcción sociocultural', 127.

51 Guevara Flores, 'La construcción sociocultural' and Guevara Flores, 'A través de sus ojos'.

Figure 7.1 *Pile of Epidemic Victims and an Individual Death*, pictographs in *Codex Telleriano-Remensis*, c. 1562, fol. 46v. Bibliothèque nationale de France, Paris, Département des Manuscrits, Mexicain 385. Source: Gallica BnF, https://gallica.bnf.fr/ark:/12148/btv1b8458267s (accessed 26 April 2022)

multitude. This is contrasted by a normal, single death on the same page. Meanwhile, the *Codex Aubin*, which records the history of Tenochtitlan (today's Mexico City), marks rulers who died of epidemic disease with reddish bulbs that imitate the pustules of smallpox or measles (compare Figs 7.2 and 7.3).

This attitude, which considers the epidemics as a shocking and unusual form of death, is continued by written accounts in indigenous languages, which began to replace painted chronicles by the late sixteenth century. The *Annals of the Kaqchikel*, a Guatemalan Maya account, announce for the 1520 epidemic: 'It was truly terrible, the number of dead there were in

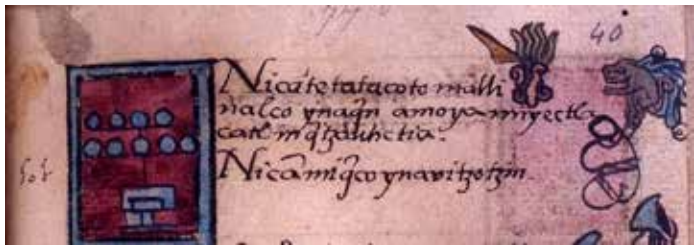

Figure 7.2 *Death of King Ahuizotl* (who died of a head injury), pictograph in *Codex Aubin*, c. 1576–1607, fol. 40r. British Museum, London, Am2006,Drg.31219. © The Trustees of the British Museum

Figure 7.3 *Death of King Cuitlahuac* (who died of smallpox), pictograph in *Codex Aubin*, c. 1576–1607, fol. 44v. British Museum, London, Am2006,Drg.31219. © The Trustees of the British Museum

that period. … Little by little heavy shadows and black night enveloped our fathers and grandfathers and us also, oh, my sons! when the plague raged. … We were born to die!'[52] The Nahuatl-language *Annals of Tecamachalco* even record smallpox as the only event for 1520 – although the conquest itself was ongoing in that year![53] Part of what made the epidemics so horrifying to indigenous authors was their entirely unprecedented nature. 'Never once had this been seen; never had it been suffered in Mexico', say the Nahuatl materials collected from Tlatelolca nobles by Franciscan friar Bernardino de Sahagún.[54]

Given the novelty of what they were experiencing, many indigenous Mesoamericans professed ignorance of its causes as well, as several *Relaciones*

52 *The Annals of the Cakchiquels / Title of the Lords of Totonicapán*, trans. Adrián Recinos, Delia Goetz, and Dionisio Jóse Chonay (Norman: University of Oklahoma Press, 1953), 115–16.

53 *Anales de Tecamachalco, 1398–1590*, ed. and trans. Eustaquio Celestino and Luis Reyes García (Mexico City: Fondo de Cultura Económica, and Puebla: Gobierno del Estado de Puebla, 1992), 24. Compare Cook, *Born to Die*, 69; McCaa, 'Spanish and Nahuatl Views', 410.

54 Fr. Bernardino de Sahagún, *Florentine Codex. General History of the Things of New Spain*, vol. 9 of 13 vols, ed. and trans. Charles E. Dibble and Arthur J.O. Anderson (Santa Fe, NM: School of American Research, 1954), 4.

Geográficas report.[55] Although usually penned by Spanish officials, these reports drew upon interviews with local indigenous elites and can thus be used to complement their own writings.[56] Based on this material, anthropologist Barry Isaac suggests that '[n]ot daring to attribute mortality and morbidity to indigenous gods … but not yet committed to assigning these powers to the Christian god, many of the native informants avoided assigning ultimate causality'.[57]

However, at least some of the indigenous chronicles do exactly that, speaking of the will of God. Divine causation is implied by the *Annals of Tecamachalco* calling smallpox *teozahuatl* ('divine rash') and outright stated in the *Annals of the Kaqchikel*, which assert for the 1560 epidemic that 'a fearful death fell on our heads by the will of our powerful God'.[58] Similarly, Chimalpahin, chronicler of the Nahua polity of Chalco, states for 1576 that it 'was thus the will of God Our Lord that we suffered'.[59] Notably, most sources that invoke the wrath of God remain silent on what had roused it in the first place. Only Muñoz, a descendant of Tlaxcaltec nobility, ambiguously speaks of '[our] sins'.[60] Meanwhile, the *Relación Geográfica* for Tiripetío in Michoacán even makes the opposite claim, taking mass depopulation as a sign of God's favour. It relates that the natives of Tiripetío believed they had lived longer before the conquest because God had wanted to give them more time to reject the Devil. Now that they were good Christians, He was fetching them more quickly.[61]

By adopting such Christian language, indigenous intellectuals could present themselves as deserving and pious subjects of the Catholic monarchy and their cause as allied to the Spanish one. Their claim to status as good Christians undercut the rhetoric with which the conquest elite were justifying their usurpation of native territories and labour.[62] When

55 Acuña, *Relaciones geográficas*, vol. 8, 102 (*Relación de Texcoco*), 162 (*Relación de Totolapan y su partido*); Acuña, *Relaciones geográficas*, vol. 10, 238 (*Relación de Tenamaxtlan*).

56 Villella, *Indigenous Elites and Creole Identity*, 74, 104.

57 Barry L. Isaac, 'Witnesses to Demographic Catastrophe. Indigenous Testimony in the Relaciones Geográficas of 1577–86 for Central Mexico', *Ethnohistory* 62: 2 (2015), 309–31, at 326.

58 Recinos et al., *The Annals of the Cakchiquels*, 143.

59 'Fue pues la voluntad de Dios Nuestro Señor que la sufriéramos', Francisco de San Antón Muñón Chimalpahin Cuauhtlehuanitzin, *Relaciones originales de Chalco Amaquemecan*, ed. and trans. Silvia Rendón (Mexico City and Buenos Aires: Fondo de Cultura Económica, 1965), 282.

60 'n[uest]ras culpas', Muñoz Camargo, 'Diego Muñoz Camargos Chronik', 36. For Muñoz's status within the indigenous nobility, see Villella, *Indigenous Elites*, 134.

61 Acuña, *Relaciones geográficas*, vol. 9, 346.

62 Villella, *Indigenous Elites*, 4–5, 9–10.

the indigenous nobility engaged in sensemaking regarding the epidemics bereaving their people, they were thus simultaneously fighting a battle over the titles and privileges inherited from their ancestors. This heritage also had an intellectual component, which they combined with European thought to create hybrid discourses that resonated across different cultures.

This can be seen in the Nahuatl concept of *tlazolli*, which describes both physical refuse and moral failing. Similar to how sin could create miasma in the European framework, a person accumulating *tlazolli* could affect others, drawing negative influences, including disease, towards them.[63] One aspect of *tlazolli* was bad smell, and so Santa María's account of native odour is paralleled by the indigenous town council of Tlaxcala, which worried about the sweaty stench of textile workers contributing to disease.[64] Meanwhile, when Chimalpahin echoed the surgeon López in linking the worsening spread of an epidemic in 1577 to the appearance of a comet, he was also in line with the traditional association of *tlazolli* with inauspicious celestial phenomena.[65]

Overall, indigenous intellectuals largely performed their sensemaking within the epistemic confines of the colonial state. Outright defiance of the dominant Spanish ideologies is attested only from indirect accounts. In these, Spanish authors refer to unnamed and unnumbered natives, whose status and background remain unclear. In two *Relaciones Geográficas*, one from Tuxcacuesco in Jalisco and the other from Huatulco in Oaxaca, disease is blamed on the cessation of pre-Christian worship, challenging the project of evangelisation. In the old times, the people of Huatulco supposedly said that their gods 'told them what they had to do to cure those who fell ill'.[66] Equally unspecific is the account of Dominican Agustín Dávila Padilla, who reports that, jealous of the health among the Spanish, some natives in Mexico City threw the dead bodies of epidemic victims into the water supply to poison it.[67]

These examples suggest that outside the intellectual elite, other discourses of sensemaking were developed among indigenous Mesoamericans, ones that rejected the colonial regime and blamed it for the epidemics. The

63 Louise M. Burkhart, *The Slippery Earth. Nahua-Christian Moral Dialogue in Sixteenth-Century Mexico* (Tucson: University of Arizona Press, 1989), 87, 91, 95–97, 171.

64 AGI, México, 1091, L. 11 (3 March 1585).

65 Chimalpahin Cuauhtlehuanitzin, *Relaciones originales de Chalco Amaquemecan*, 283.

66 'les decían lo que habían de hacer p[ar]a sanar cuando caían enfermos'. *Chimalpahin Cuauhtlehuanitzin, Relaciones originales de Chalco Amaquemecan*, vol. 2, 190. For the Jalisco case, see the same, vol. 10, 54.

67 Dávila Padilla, *Historia de la fvndacion*, 157–58.

prevalence and inner logic of these discourses, however, remain difficult to assess and thus reveal one of many directions for further research on sixteenth-century Mesoamerica's epidemic sensemaking.

Conclusions

This study has been, as cautioned before, no more than surface level. In its investigation of the social dimension of Mesoamerica's sixteenth-century epidemics, it has been a 'revisitation', limiting itself to well-known and oft-used sources examined through a new lens, that of sensemaking. Through this approach, the study has revealed how different theories of epidemic causation mapped onto different social groups, each struggling for self-assertion and dominance within the 'fractal society' of early colonial New Spain.

A shared centre of their sensemaking was Christian religion. Members of the clergy, conquest elites, and indigenous intellectuals all referred to God in their theories, and medical professionals recommended the sacraments as means of healing. However, the precise role assigned to divine power varies. Medical professionals foregrounded climatic and dietetic causation that emphasised the need for their expertise. Clerics, conquest elites, and many indigenous intellectuals agreed that the epidemics were divine punishment provoked by sin, but whose sin it was depended on the speaker's social position. The clergy blamed Spanish greed and spoke prophecies that required their spiritual work to be fulfilled. The conquerors blamed indigenous debauchery and each other, justifying their own privileges. Indigenous intellectuals produced the most varied and contradictory responses, bearing witness both to the shock of their losses and the strenuous work of cultural hybridisation. Together, these four groups give an idea of the many meanings assigned to the epidemics across colonial Mesoamerican society. Their discourses hint at the existence of many others, especially those of common people, that remain to be discovered through archival and indigenous-language sources.

With my study I have attempted to lay a groundwork upon which such further investigation can build. Part of this has been my refashioning of the idea of sensemaking as a discourse concerned with explaining disaster. This has allowed me to group together statements from across the epidemic experience and connect them to the larger processes of disaster response. Sensemaking stresses the importance of understanding for the formulation of relief measures while simultaneously showing how these

explanations and the measures derived from them are products of social conflict and negotiation. It helps describe and analyse a style of discourse recurrent in various kinds of disaster situations. Thus, sensemaking serves as a tool to connect and compare social responses not just in the history of colonial Spanish American epidemics, but in the history of disasters as a whole.

Table 1 Overview of epidemics in sixteenth-century Mesoamerica, based on data from Cook, Born to Die; Lovell, 'Disease and Depopulation'; and Prem, 'Disease Outbreaks in Central Mexico'; compiled by the author

Time frame	Affected regions	Spanish identifications	Indigenous names
1520–21	all of Mesoamerica	*viruelas* (smallpox)	Nahuatl: *huey zahuatl* (great rash), *totomonaliztli* (pustules and blisters); K'iche': *chaac*
1530–31	Central Mexico	*sarampión* (measles)	Nahuatl: *zahuatl* (rash)
1532	Central Mexico	-	Nahuatl: *zahuatl* (rash), *totomonaliztli* (pustules and blisters)
1533	Guatemala, Nicaragua	*sarampión* (measles), *viruelas* (smallpox)	–
1545–48	all of Mesoamerica	*tabardillo* (typhus)	Nahuatl: *huey cocoliztli* (great sickness); K'iche': *[gu]cumatz* (snake); P'urépecha: *tepari* (swelling)
1550	Central Mexico	*paperas* (mumps)	Nahuatl: *quechpozahualiztli* (throat sickness)
1558–62	Guatemala	*sarampión* (measles), *tabardillo* (typhus), *viruelas* (smallpox)	-
1560	Veracruz, Guatemala	-	-
1563–64	Central Mexico, Guatemala	*sarampión* (measles), *viruelas* (smallpox)	Nahuatl: *matlatotonqui* (green fever), *zahuatl* (rash)
1576–80	all of Mesoamerica	*sarampión* (measles), *tabardillo* (typhus), *viruelas* (smallpox)	Nahuatl: *matlatotonqui* (green fever)
1587	Central Mexico	-	Nahuatl: *cocoliztli* (sickness)
1595	Central Mexico	*paperas* (mumps), *sarampión* (measles), *tabardillo* (typhus)	-

About the Author

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