Experiments in Dealing with Epidemics in Seventeenth-Century Siam

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Abstract

This article uses a study of two epidemic outbreaks of smallpox in late seventeenth-century Siam to interrogate the developing “social meaning” of the disease in Thai society at the time. Through this case study the article examines the problems of translation and the limitations of our source bases for understanding premodern approaches to epidemic management. It suggests ways of reading across various sources to reconstruct how intercultural learning, exchange, and experiment among communities who suffered epidemic disease contributed to global constructions of concepts of disease.

Keywords

smallpox – Siam – epidemics – missionaries – contagion – translation

Introduction

We have recently been forcefully reminded how profoundly contagious disease can come to reshape personal interactions, socioeconomic relations, norms, and physical and mental landscapes. Epidemics are particularly interesting for historians. Experiencing an epidemic can bring about epistemic shifts for individuals and societies, calling into question beliefs about how to manage the threat of disease, how to govern, and how to live. The sixteenth to eighteenth centuries saw a large number of particularly virulent epidemics

around Eurasia, especially smallpox.¹ With the exceptions of bubonic plague and cholera, smallpox captured the early modern imagination like no other.² French physician Jean-Jacques Paulet (1740–1826) captured the tone, describing it as the “most bizarre, extraordinary, and one of the most dangerous that affects us, which deceives and will continue to deceive even the most capable and experienced doctors.”³

Repeated experience of epidemics could lead to revelations about the nature of a disease for medical experts and laypeople alike. Awareness that certain, deadly diseases recur periodically, and that communities elsewhere also suffer from the similar cycles of affliction, often prompted two responses: experimentation and intercultural investigation. In the case of smallpox, for example, one key realization was that those who survived the disease enjoyed lifelong immunity. This led to the coterminous development in various communities of technologies to attempt to harness this potential by intentionally inducing mild cases of smallpox. Such experimentations and the subsequent spread of innovative approaches through intercultural exchange are the key reason that smallpox looms so large in medical history, as they ultimately led to the development of vaccination.⁴

Of course, often concepts, ideas, technologies, and materials did not “translate” and were not adopted as a result of intercultural investigations. Some European approaches to treating smallpox, for example, involved rebalancing the humors through bloodletting and the administration of various purgatives during the febrile stage of the disease. This approach was often greeted with some horror. Physician Charles Dellon, for example, related how on Malabar Coast in India, “all were scandalized to see us ordering bloodletting and enemas before the eruption of pustules, and even though they saw that this was a happy success, they could not bring themselves to imitate our conduct.”⁵ Techniques of variolation were similarly hotly contested and rejected by many authorities and communities throughout Europe and Asia when first introduced. “Despite

Transcription of Thai in this article uses the Royal Thai General System of Transcription (RTGS) 1999 version, except in the case of names or proper nouns for which a different transcription is more commonly used. See RST 1999. Unless otherwise stated all translations are my own.

- 1 For general overviews see Fenner et al. 1988; Watts 1999; Harrison 2004; Cohen 2018. On smallpox see Hopkins 1983; Glynn and Glynn 2004; Williams 2010. On epidemics in Southeast Asia see Fenner 1987; Newson 1998; Boomgaard 2001, 2003; Reid and Jiang 2006.
- 2 The literature on the literary and cultural impact of smallpox is extensive. See especially Carlin 2005; Shuttleton 2007; Seth 2008.
- 3 Paulet 1768, 1:38.
- 4 Darmon 1986; Eriksen 2013; Bennett 2020.
- 5 Dellon 1685, 2:45–46. Note that some European physicians also opposed bloodletting in these circumstances. See Ettmüller 1691, 1:521.

the ravages of the disease,” reported historian François Henri Turpin of the Siamese in 1770, for example, “they disdain the benefits of inoculation.”⁶

Understanding these processes of experimentation, exchange, translation, and epistemic change is at once an imperative and a significant challenge for historians. We are most aware of experiments, and their epistemological impacts, when they were observed by scholarly authors. The “unlearned” originators of technologies or insights are rarely credited in our sources with any great acumen or understanding.⁷ In this article I explore these issues and challenges through a focus on two outbreaks of smallpox in late seventeenth-century Siam (modern-day Thailand). The study of seventeenth-century Thai history is hampered by the catastrophic loss of source material which occurred during the sack and destruction of the capital city Ayutthaya following the Burmese invasion of 1767. Yet I argue that, with care, we can parse surviving sources, read between the lines of contemporary foreign accounts, and contextualize them against later Thai records, to catch glimpses of seventeenth-century Siamese responses to epidemic outbreaks. Drawing on this material, I first address problems of translation and meaning inherent in any attempt to study disease across linguistic and cultural boundaries. I examine the changes brought about by experiences of epidemic outbreaks, and uncover the ways in which seventeenth-century Siamese monarchs engaged in a range of public health experiments: changing social norms, investigating approaches taken elsewhere, and trying out strategies to alleviate suffering. I contextualize these measures in terms of Siamese cosmography and Buddhist kingship, and speculate about wider epistemic shifts which may have occurred as a result of epidemic outbreaks. The main accounts of each epidemic outbreak are found in French missionary sources, but I suggest how we might read “through” such accounts to uncover lost Siamese perspectives. I thereby suggest techniques with which we can reconstruct the changing “social meanings” of a disease, despite the limitations of surviving source material.

Differential Diagnoses and Contested Translations: What *Was* Smallpox?

Seventeenth-century visitors to Siam were almost unanimous in declaring smallpox the “real plague of this country.”⁸ For many Europeans the vestiges of smallpox aroused particular disgust. This was reflected in the common trope

⁶ Turpin 1771, 138.

⁷ See especially Eriksen 2020.

⁸ La Loubère 1691, 1:146.

of the ugliness of smallpox scarring in moral tales, or in comic stories concerning vain individuals doing their best to avoid any chance of contagion lest it steal their looks.⁹ Such sentiments were mirrored in travelers' accounts of the effects of smallpox on the population in Siam. "They are all without exception, men and women, horrifyingly ugly," wrote French Jesuit Marcel Le Blanc, describing his travels there in the 1680s.¹⁰ "Throughout this country there runs a smallpox which is so malignant that no one escapes: everybody is very badly treated by it and from which they all have scarred faces whose features are rendered indistinct."¹¹ The relatively sparse contemporary Thai-language chronicle evidence seems to support the European consensus that smallpox (*thoraphit*) held a particular significance as an awesome disease, outbreaks of which were worthy of note.¹² Diseases which marked the skin also seemed to arouse disgust in premodern Thai society, with sufferers held in abhorrence.¹³ In some modern narratives of the history of medicine in Thailand, success in treating this much-feared disease therefore often features as a key explanation for why "Western" biomedicine started to gain ascendancy over Thai medical systems in popular esteem from the nineteenth century.¹⁴ But when our sources speak of "smallpox" (*[khai] thoraphit*), what does this mean?

Throughout this essay I use the term "smallpox" almost as a term of art. I use it to translate into English terms used in the French and Thai sources—*petite vérole*, and *khai thoraphit* or *fi dat*—an equivalence also drawn by early modern authors working between these languages. Yet like all translations, this one obscures the complexity of the original concepts and strips out some of the nuances of how epidemic diseases were experienced by different groups in different times. This is, arguably, especially the case with "smallpox," a name which has distinct connotations in the history and historiography of human disease.

There are practical, and well-rehearsed, problems with retrospective diagnosis, and with all attempts to map historic nosologies onto modern ones. Sometimes it seems clear that our sources are describing the symptomatology of smallpox, beginning with fever, vomiting, headaches, lesions in the mouth, and then a second-stage eruption of "pox" (macules or pustules covering the

9 This was common, for example, in stories published in the periodical *Mercurie Galante*. See Donneau de Visé 1692, 238–63, 242; Du Fresny 1711, 18–24. See also Shuttleton 2007.

10 Le Blanc 1692, 112.

11 Ibid.

12 For example, drawing on the chronicle tradition, Terweil refers to particularly severe epidemics in 1563–64, 1621–23, and 1749–50. See Terweil 1986, 142–61.

13 Ratarasarn 1989, 96. On the changing concept of "germs" see also Golomb 1985, 137.

14 See especially Salguero 2007, 37; Muksong and Chuengsatiansup 2012; Anuphongphat and Chuengsatiansup 2014.

limbs and face). In other cases the sources are more ambiguous. There were a range of other diseases which caused a similar pattern of symptoms, which has led to a number of historiographical debates about particular epidemics.¹⁵ Contemporary medical treatises attest to the difficulties of distinguishing between various sorts of “malignant fevers” and diseases which caused skin eruptions.¹⁶ It can be thus difficult to say with certainty in many cases whether or not a given patient had “smallpox” in the sense of having contracted some variant of the *variola* virus.¹⁷ Of course, even when scientific analysis of an individual’s remains reveals the presence of, for example, *variola major*, this tells us only a limited amount about how patients and healers understood or experienced the disease.¹⁸

It is also sometimes unclear whether the term is being used to refer to observed symptoms or the mechanism behind a group of apparently similar diseases. The Thai term *khai thoraphit* or *khai* meaning “fever,” and *thoraphit* meaning “virulent, dangerous, toxic,” for example, could potentially mean “a fever or disease caused by a poison,” or “a virulent, noxious fever.”¹⁹ By the nineteenth century, it had become the formal term for smallpox; but prior references in the chronicle tradition may have referred to other pestilential diseases believed to have been caused by, or to create, “poisons” within the body. Perhaps more evocative is the colloquial term *fi dat* (lit., “plentiful pustules,” or “boils that spread all over”).²⁰ As Barend Terweil comments, for some epidemics—for example those of 1621–22 and 1622–23—chronicles explicitly report that *ok fi* (“there was an outbreak of pustules”) from which many died.²¹ Similarly, *rok ha* (often translated simply as “cholera”) could be descriptive of the etiology of a range of diseases (*rok*) including plague, cholera, and smallpox, which were brought about by a particular type of spirit (*ha*).²² Terweil argues that cholera morbus was probably unknown in Siam before the great epidemic of 1820, suggesting that before this date “cholera” may be a slightly misleading translation.²³

An example of this semantic complexity appears in the set of (re)translations of Simon de la Loubère’s famous *Description de la Royaume de Siam* (1691) in Table 1.

15 See, for example, Marr and Cathey 2010.

16 See, for example, Ettmüller 1691, 501–45.

17 On the varying strains in Europe see Carmichael and Silverstein 1987; Duggan et al. 2016.

18 For example, Duggan et al. 2016.

19 For example, MacFarland 1944, 396. See also Terweil 1986, 147.

20 Ratarasarn 1989, 127–28.

21 Terweil 1986, 147.

22 See RST 1982, *ha*, definition 1.

23 Terweil 1986, 146.

TABLE 1 Loubère in translation

French original (1691)	English translation of 1691 French (1693)	Thai translation of 1693 English (2010)	English translation of 2010 Thai (2012)
<p>Il y a beaucoup de Cancers, d'Abcés, & de Fistules. Les Eresipeles y sont si fréquents, que de vingt hommes il y en a dix-neuf, qui en sont atteints; & quelques-uns en ont les deux tiers du corps couverts. Il n'y a point de Scorbut, ny guère d'Hydropsie, mais beaucoup de Maladies extraordinaires, que le Peuple croit être causées par des sortilèges. Les Maux de débauche aussi n'y sont plus rares, mais ils ignorent s'ils sont anciens, ou récents en leur Païs.</p> <p>Enfin, il y a des Maux contagieux, mais la véritable Peste de ce Païs-là est la petite Vérole.^a</p>	<p>There are a great many <i>Cankers, Abscesses, and Fistula's [sic]. Fresipeli</i> are here so frequent, that among twenty men, nineteen are infected therewith; and some have two thirds of their body cover'd therewith. There is no Scurvy, nor Dropsie, but a great many of those extraordinary distempers, which the people conceive to be caused by Witchcraft. The ill consequences of a debauch are here very frequent, but they know not whether they are ancient or modern in their Country.</p> <p>In a word, there are some contagious diseases, but the real Plague of this Country is the Small Pox.^b</p>	<p>[Rueang rokkhaphat khong chao Sayam nai krung Si Ayutthaya mi tangtae rok puang. Rok bit, khaikamdao, khaiwat, khaichapsan, rok phit batthayak, rok chaplom rok ammaphat, rok khuttharat, khaokho] fi tang tang. Pen pruatphit, phlae pia phang, rok lohiti lai thang ngueak maikhoi phop. Rok khiruean kut thang maikhoi hen. Tae khon siacharit mi chum, kan thukkratham yamyia choeng krit khun khwam praphruet lamok pha hai koet kammarok nai krung Sayam ko dok mai yok. Anueng nai krung Sayam ko mi rok titto kan. Tae ha chai ha kalarok yang thawip yurop mai. Tua rok ha khong krung sayam kokhue khaithoraphit ahiwatakarok.^c</p>	<p>[The illnesses of Siamese people in Ayutthaya include cholera (rok puang), dysentery, catarrhal fever (khai kamdao), common cold, malaria, tetanus, epilepsy, paresis (rok jablom), paralysis, yaws, joint pain (khao-kho) and] abscesses; rarely found are infected subcutaneous nodules (pruatpit), ulcer, scurvy and leprosy; but rather prevalent are mental disorder, black magic-inflicted symptoms, venereal diseases due to promiscuity, and communicable diseases (but not plaque [<i>sic</i>] as in Europe). "Rok ha" in Siam is smallpox and cholera.^d</p>

a La Loubère 1691, 1:145–46. Boldface in table my emphasis.
b La Loubère 1693, 39. Italics in the original.
c Sobhanasiri 2010, 26–27.
d Sobhanasiri 2012, 26.

In the sections in bold in each extract, smallpox is contextualized for the reader. Reading across the table, we can see how translation processes could be affected by issues of disputed commensurability, by perceptions of what information would be interesting or relevant for audiences, and by perceived needs to gloss certain disease categorizations. In the near-contemporaneous French-to-English translation, for example, some interesting choices have

been made, and often italicized (*“Fresipelli”* for “Eresipeles” rather than the more commonly used “Erysipelas” or “St Anthony’s Fire”), suggesting some potential points of disjunction between the French author’s and the English translator’s familiarity with certain conditions. The translation of “la petite Vérole” as “Small Pox,” is unremarkable. In both languages by the seventeenth century common terminology had rendered the disease distinct from, but at the same time semantically linked to, another much-feared and stigmatized condition: the great pox (*la vérole*), or syphilis.²⁴ The modern Thai translation, however, from an article by Santisuk Sobhanasiri, and its later retranslation into English, provide a much looser reading of La Loubère’s original French text. This condenses a much longer section of La Loubère into a list of diseases (in square brackets in the table), and reinterprets diseases into very different categories.²⁵ In the conclusion of the passage (in bold), “smallpox” (*khai thorphit*) is linked to “cholera” (*ahiwatakarok*). Both are described as the *rok ha* of the country, a term which is left untranslated in the English, rather than as the *kalarok* (plague) of the country, which would have been a closer literal translation of La Loubère but perhaps less evocative.

Linguistic choices can thus reflect broader underpinning concepts of disease. Of course this is not to say those who shared languages shared understandings. Experts across Eurasia debated numerous theories of disease transmission: from contagion and miasma to parasitic vectors and causation, from humoral imbalance to environmental and astrological factors, from spontaneous generation or the existence of innate disease “germs” or “ferments” to pathogenic viruses.²⁶ One expert’s “smallpox” could thus contain a range of different concepts and assumptions from that of his or her peers. These complexities could also affect the reception of new ideas concerning the management of epidemic disease among lay audiences.

Experiences of Smallpox Epidemics in Seventeenth-Century Siam

Accounts by the missionaries who were attempting to convert the Siamese to Catholicism are particularly useful sources to catch glimpses of the lived experiences of epidemics. As I have described elsewhere, Christian priests strove in vain to achieve the respect enjoyed by the Buddhist Sangha of the country by

24 Arrizabalaga, Henderson, and French 1997; Shuttleton 2007.

25 Sobhanasiri 2010, 26–27.

26 See, for example, Nutton, 1983; Arrizabalaga, Henderson, and French 1997; Conrad and Wujastyk 2000; Carlin 2005; DeLacy 2016.

presenting themselves as healers.²⁷ Epidemics, therefore, were to be feared but they were also opportunities. “Providence,” wrote missionary Pierre Gross in a typical formulation, “wished to provide us with the means to augment [the fruits of our labors], by permitting that not only the royal city [Ayutthaya] but also the neighboring villages and almost the whole kingdom, were infected by smallpox, which killed a great number of people, adults as well as children.”²⁸ His colleagues had been able to baptize around 12–13,000 people in fewer than seven or eight months in 1682, “of whom very few returned to health.”²⁹ “At the time when a smallpox very similar to the plague [une petite vérole bien semblable à la peste] desolated the Kingdom,” runs another account, “the zeal of the missionaries was such that in less than a year they had baptized there more than 14,000 dying children.”³⁰ Such accounts provide fascinating incidental insights into social norms and practices in times of epidemic, even as these were overturned.

Gross, for example, complained of the “thousand superstitions” employed by ordinary people to combat sickness. They placed, he related, “horrifying portraits” in the rooms of the sick.³¹ This probably refers to the creation of yantra bearing the image of Thao Kuwen or Thao Wetsuwan, a figure known as Vessavaṇa in the Pali canon: king of demons and guardian of newborn babies, capable of frightening away evil spirits.³² More problematic for the missionaries was the creation of a symbolically impenetrable boundary to prevent ingress into houses of the dying. Here Gross’s description is intriguing, and offers a rare glimpse of the historic practice of a custom still observed in parts of modern Thailand. “They also place before their houses a bamboo,” he wrote, “which is made in the shape of a sort of grill, attached to the top of a pole; as long as this superstition lasts, they refuse entry to any strangers, giving as a reason that the devil will mistreat them and do harm to the sick person if they allow outsiders to enter.”³³ This seems to indicate the use of *chaleo* or *taleo*, an object made of thin strips of bamboo and sometimes thread, woven into a star shape.³⁴

27 Alberts 2013, 109–19.

28 Pierre Gross, “Relation”, 1682, in Launay 1920, 1:90.

29 Ibid., 91.

30 Bénigne Vachet, “Mémoires,” in Launay 1920, 1:317.

31 Launay 1920, 1:90.

32 Rajathon 1961a, 184.

33 Launay 1920, 1:91.

34 *Chaleo* is the Bangkok/Central pronunciation; variations on *thaleo* are used in the north and northeast.

Thai folklorist Anuman Rajathon described the use of these markers in the 1960s.³⁵ By then, they had many purposes: to indicate something was for sale, as boundary markers, and particularly on lids of pots of traditional medicine where they may be intended to warn the customer not to remove the lid, and/or to prevent the spirit Phaethayathon from “tasting the medicine” and draining its potency.³⁶ He noted that at the end of the nineteenth century they were “to be seen frequently,” but by the 1960s the markers had become mainly decorative, and that, in Bangkok at least, the meaning was not often remembered by his informants. Their use as protective boundary markers was seen mostly among communities in northern and northeastern Thailand, he reported. In Chiang Mai, for example, a *taleo* was used to “prevent a dead person’s spirit from molesting the inmates of a house where death had occurred.”³⁷ He noted continued practice of *yu kam* or *yu kwam*, which he translates as “act of sacred observance,” in these regions, whereby strangers are forbidden from entering certain areas guarded by a *taleo*.³⁸ During the COVID-19 epidemic, in 2020 the practice was revived by a Karen group in the north of the country to shut their village to outsiders, indicated with a *taleo*. This was reportedly last done during a cholera outbreak around seventy years ago.³⁹ Such practices have therefore become more closely associated with northern/northeastern and minority cultures, although Gross’s account suggests an important role in Ayutthaya during epidemics.

Missionary accounts made it clear that the boundary created by the *chaleo* was fiercely guarded. Even when missionaries were accompanied by the king’s representatives, they were rebuffed: “none of our arguments got us anywhere, and they very frequently refuse entry even to the king’s own physicians, they are so attached to their superstitions.”⁴⁰ Missionaries, unsurprisingly, interpreted the *chaleo* and other sickroom taboos as inventions of the Devil, “to prevent dying infants and adults from receiving baptism into the faith.”⁴¹ They had little compunction in disregarding them. Rather than reading them as signs to retreat, missionaries translated the *chaleo* as beacons, marking out the places to target first:

35 Rajathon 1961b, 161–82.

36 MacFarland 1944, 271; Rajathon 1961b, 162–63; Mulholland 1979, 106.

37 Rajathon 1961b, 162.

38 Rajathon 1961b, 180–81.

39 Kedmanee 2020.

40 Launay 1920, 1:91.

41 Ibid.

As our aim, in the distribution of remedies, is none other than to obtain that some poor dying person gets to heaven, we could think of no better invention than to enter suddenly into the houses which have this sort of marks, and when by chance we are surprised, and they close the doors on our noses, we try nevertheless to enter, however much they oppose it.⁴²

Gross insists that this “little violence” is generally forgiven, with the householders often apologizing for initially refusing them entry, “to the extent that we almost always leave as good friends of the household, thanks to the relief that we try to give to the sick.”⁴³ Epidemics, then, ripped up social norms and created spaces (as far as the missionaries were concerned) for behaviors which would otherwise be outrageous.

Missionary accounts suggest that by the end of the 1670s the incidence of epidemic disease was such that “for many years ... it has been the case that almost every year the diseases of smallpox and others take away a large number of people in the kingdom due to a lack of available assistance.”⁴⁴ In comparison with later periods, for the seventeenth century there is very little evidence in the surviving Thai sources to identify the range of public health measures which religious institutions, officials, and the royal court may have employed to try to mitigate this onslaught. However, we can piece together some indications of the measures taken, and speculate about how these may have shaped understandings of epidemic disease.

Funerary customs, for example, seem to have been rapidly adapted, with new protocols being adapted to deal with deaths during an epidemic. By the time Simon de la Loubère was writing his description of Siam in the 1680s, there had been time enough to adopt a new norm to manage the danger posed by the corpses of smallpox victims. La Loubère noted that smallpox “frequently made terrible ravages, and therefore they bury bodies without burning them.”⁴⁵ This was a practical solution to an observed problem: corpses could serve as vectors for new outbreaks. Such bodies may be disinterred for the proper funerary rites once danger had passed.⁴⁶ “What surprised me greatly,” wrote La Loubère, “was that they do not dare do this until after three years or more, because they have experimented, from which they say that the Contagion recommences if they disinter earlier.”⁴⁷

42 Ibid.

43 Ibid.

44 Duchesne 1682, 190.

45 La Loubère 1691, 146.

46 Ibid., 480.

47 Ibid., 146.

Such discoveries could lead to the confirmation of certain heuristics of epidemic diseases. Jean-Jacques Paulet recalled these Siamese practices when referring to similar discoveries made by European authorities. “Observations made in Europe conform to those of the Siamese on this illness,” he wrote: it had been “observed that corpses covered with smallpox communicate it to those who touch them some time after death.”⁴⁸ For Paulet, such observations were “precious”, shedding new light “on the little known nature of the variola virus, which we should not consider as a passive entity.”⁴⁹ They added to the evidence he felt proved that smallpox “has no other material cause than an external virus [un virus étranger] which develops and reproduces in the human body.”⁵⁰ We may also see such observations shaping learned conceptions of disease causality in Thai medical treatises. Thongthew Ratarasarn draws attention to the concept of “germs” of disease—tiny, intangible, living substances which could enter the body and cause disease—in the seventeenth-century *Phra Narai’s Medical Treatise*.⁵¹ Deriving from this, and from the concept of environmentally borne diseases, arose the classification of certain diseases as *rok tit to* (contagious or infectious diseases, lit., “catch by connection”), or *rok rabat* (epidemic, lit., “spread or outbreak of disease”): diseases which could be transferred, and which therefore required the sequestration or avoidance of victims.⁵² Some recipes in Thai pharmacopeia similarly suggest a conception of smallpox as caused by an exogenous animal-like or spirit entity which needed to be chased out, including parts from fierce animals and bitter herbs which would serve this purpose.⁵³ Perhaps the *chalo*e could also serve the practical end of preventing unwary outsiders from coming into contact with sources of contagion, whether they were conceptualized spiritually or materially.

We can also consider the psychological impact that these burial practices may have had, considering that they conflated smallpox victims with others whose unfortunate deaths were the result of bad karma. As La Loubère recounts, in central Siam the most respectable form of disposal was cremation, although the poor often had to make do with burial.⁵⁴ However, certain categories of the dead were denied cremation regardless of status: “they never burn those whom Justice caused to die, nor stillborn children, nor women who died in childbirth, nor those who drowned or died in some extraordinary

48 Paulet 1768, 1:148.

49 Ibid.

50 Ibid., 2:13.

51 Ratarasarn 1989, 96. See also Golomb 1985, 130–31.

52 Ratarasarn 1989, 97–98, 155–56.

53 See, e.g., Eschaich 1932, 111; Rajathon 1958; Bamber 1998, 348–49.

54 La Loubère 1691, 478–80. See also Terweil 1979, 422.

disaster, like by lightning strike. They rank these unhappy people among the guilty, because they believe that these misfortunes would never happen to the innocent.”⁵⁵

Smallpox sufferers were therefore (albeit sometimes temporarily) treated in the same way as those whose violent, sudden, or inauspicious death meant that their spirits were unable to gain access to another realm and so became *phi tai hong*, *phi tai thang klom*, or *phi phrai*—“unquiet spirits” (*phi*) who bothered the living.⁵⁶ The potential of spiritual contagion was such that uncremated corpses themselves were known as “raw or unfinished spirits” (*phi dip*) which could be manipulated by adepts.⁵⁷ Spirits could also be generative of epidemic disease. The *phi ha* brought cholera or epidemic disease (*ha*), while the *phi pa* (forest spirits), often presaged by a swarm of butterflies, brought diseases from the jungles including malaria.⁵⁸ Propitiatory rituals were necessary to prevent these spirits from causing harm. The fear of succumbing to the disease, remaining uncremated, and possibly joining the legions of suffering, malign spirits must have added even greater terror to the prospect of the disease.

Royal Experiments and Intercultural Exchange

The great threat of this terrible disease needed strong prophylaxis on a personal and a societal level. In the cosmography which underpinned Siamese concepts of kingship, this was provided by the merit and “charisma” of the king. As a number of scholars have explored, the political order in premodern Siam was self-consciously imagined and normatively arranged as a microcosm of the universal, hierarchical, merit-determined cosmic order.⁵⁹ A king’s authority and legitimacy was a function and articulation of *barami*—from the Pali *parami* (perfection)—a complex concept which has been variously glossed as “charisma,” “personal spiritual prowess,” “charismatic power,” or “prestige.”⁶⁰ As the cosmography of King Phra Li Thai (r. 1347–68) set out, righteous kings would see their kingdoms prosper due to their accumulation of merit:

55 La Loubère 1691, 480.

56 Rajathon 1951, 166–67. See also Baker and Phongpaichit 2012, 15n74, on the common curse “Ai tai hong!” meaning “may you have a bad death!”.

57 Rajathon 1951, 166.

58 Ibid., 171–72.

59 Lithai 1982, 23. See also Heine-Geldern 1956; Tambiah 1976; Strathern 2019a, 2019b.

60 Jory 2016, 16–17.

The rain from the sky, which is regulated by the *devata*, will fall appropriately in accordance with the season, not too little and not too much. The rice in the field and the fish in the water will never be ruined by drought or damaged by rain.... the guardian *devata* who are present to guard and protect the towns and cities will do so because they respect the rulers and kings who act righteously in accordance with the Dhamma.⁶¹

Just as exogenous factors, from the environment to “germs” and spirits, could upset the balance of the human body, on a larger scale epidemics disturbed the order of the Siamese king’s realm. They could represent an incursion of the wild, untamed, irrational outer—represented by the forest—into the civilized inner “site of rational order” which was the city-state.⁶² They could represent, therefore, a failure of the king’s manifest power to shelter his realm.

However, the king’s merit could also be manifest in his skill at reversing incursions by enemies military or pathological. The foundation myth of Ayutthaya, as recounted by Dutch visitor Jeremias van Vliet in the 1640s, for example, sees King U-Thong (r. 1350–69) manifest this charisma following a devastating epidemic.⁶³ Through cunning and skill he subverted a range of tasks which a wise hermit (*rishi*) assured him would defeat the dragon which caused epidemics. Told to smear cow dung on his body every day, for example, he instead applied a mixture made of rice meal, as rice could not grow without cow dung. The hermit said this was so cunning that “thou and thy people shall suffer little from smallpox.”⁶⁴ From missionary letters, we can glean a number of measures that seventeenth-century kings experimented with to demonstrate similar cunning in the protection of their kingdom.

In late 1681–82 there was a particularly bad smallpox epidemic in Ayutthaya and the surrounding villages “of which almost everybody died.”⁶⁵ Around this time the king, Phra Narai (r. 1656–88), started to take an interest in missionary healing activities. Certain ideas were more attractive than others. The missionaries were experimenting, for example, with two types of “inpatient” care. On the one hand, they had run for some time two small hospitals—one for men and one for women—where they offered free medicines and other treatments, and provided food, clothing, and somewhere to sleep for around twenty

61 Lithai 1982, 153.

62 Bodhiraṇṣī 1998, 6; Baker and Phongpaichit 2017, 175.

63 Vliet 1975, 57–58; also discussed by Reid and Jiang 2006, 7–8, who suggest that the dragon’s epidemic may have been malaria rather than smallpox, and by Terweil 1997, 72–73, who suggests bubonic plague.

64 Vliet 1975, 58.

65 Duchesne 1682, 190; Baker and Phongpaichit 2017, 167.

to forty poor people. This hewed closely to the sorts of care also offered by Buddhist monasteries, and the king and members of the court demonstrated their approval by providing monetary support for the project. However, head of the mission Louis Laneau (1637–96) had a more ambitious plan to establish a general hospital, “like the Hôtel-Dieu of Paris,” catering to large numbers of patients, especially to those affected by the epidemics.⁶⁶ He was discouraged from even proposing this, however, as it was “not the custom of the country to have such establishments.”⁶⁷ He was warned that it would not be to his credit—or that of the religion—to even suggest such a thing: warehousing large numbers of the sick appeared unsavory and alien to Siamese understandings of public health management.

More suited to Siamese expectations was the missionaries’ distribution of free medicines and other treatments to the sick in their own homes, which “increased the esteem [of the missionaries] in the eyes of the king, the nobles, and the people.”⁶⁸ Around the beginning of January 1682 Narai heard that the priests were traveling about every day during the epidemic, “tending to the sick” and distributing medicines which, according to the missionaries, “succeeded better than those of the Chinese, Peguan, Siamese, and other physicians.”⁶⁹ Narai heard “that only the French fathers had the secret of curing all sorts of illnesses, and that they cure the majority of those whom they treat.”⁷⁰ So he sent a group of his physicians “to thank [the French bishop] and to request that he permit his physicians accompany our missionaries to visit the sick, in order they might learn how to treat them.” Narai also provided two boats with ten rowers to facilitate the visits.⁷¹

Two aspects of this incident are particularly interesting. First, there was an attempt to collect verified data about treatment techniques and successes. The king’s physicians were instructed to write everything down. “According to the custom of the Siamese,” they enumerated “exactly the number of houses we entered, and the number whom our remedies cured.”⁷² A similar report was also requested from the missionaries. The importance placed on written records, reportage, and detailed accounting by the bureaucracy of the court has been discussed by a number of scholars in relation to the conscious

66 Duchesne 1682, 190.

67 Ibid.

68 M. de Courtaulin to M. Tronson, Nov. 30, 1683, in Launay 1920, 1:91.

69 Ibid.

70 Gross in Launay 1920, 1:91.

71 Ibid.

72 Duchesne 1682, 191; see also Gross in Launay 1920, 1:91.

self-fashioning of the Siamese monarchy and court as a repository of knowledge.⁷³ Here we see, on a small scale, some of this bureaucracy turned to the question of how best to manage the ongoing epidemic.

Secondly, Narai directed that certain norms be disregarded in order to facilitate this experiment. He ordered his physicians “to make it known to the Siamese that his will was that they let us see all sick people no matter what day it might be, and whatever state the sick might be in.” This, according to Pierre Duchesne, was to counter the “superstition” of the Siamese, “inspired by their physicians and their monks who also meddle in medicine that on certain days ... if someone is permitted to enter the house of a sick person, the sick person will die, or his condition will worsen ... above all that when the sick person is nearing the end, then no one can enter; they place for this reason a sign at the door.”⁷⁴ In this way Narai ordained setting aside two customs. In effect, he endorsed missionaries’ intrusion into houses “sealed” by a *chaleo*. He also allowed missionaries to attempt their cures despite any contraindications identified by local experts, who took into account the time, day, and other temporal and astrological readings in their treatments.⁷⁵

Narai’s response was perhaps predictable, given his fascination with foreign knowledge.⁷⁶ Such openness to foreign lore could be an important part of a Siamese king’s self-fashioning as a learned universal monarch. However in Narai’s case it was joined with a perceived disregard for his duties to uphold the primacy of the Buddhist Sangha in the country which disturbed the nobility, Buddhist clerisy, and wider population.⁷⁷ As Chris Baker and Pasuk Phongpaichit detail, the last decade of Narai’s reign was troubled by repeated disturbances: court intrigues, rebellions, the rise of a *phumibun* (man of merit) implicitly challenging royal authority, culminating in the “revolution” of 1688 which brought an end to the Prasat Thong dynasty. In his outward-looking reformism, they suggest, Narai “may have impressed the outside world more than his own subjects.”⁷⁸ His facilitation of the missionaries’ disregard of norms may have been seen as part of a broader pattern of perceived impropriety.

The reign of his successor Petratcha (r. 1688–1703) was also troubled by a number of significant rebellions and revolts in the provinces, some led by men proclaimed *phumibun*.⁷⁹ Missionary letters of the period paint an apocalyptic

73 Baker and Phongpaichit, 148–50.

74 Duchesne 1682, 191.

75 On the role of time and days see especially Mulholland, 1979, 98–102.

76 Hodges 1998; Cruysse 1991; Strathern 2019a.

77 Baker and Phongpaichit 2017, 165–67; Strathern 2019a.

78 Baker and Phongpaichit 2017, 171.

79 Ibid., 224–27.

picture, and referred to popular eschatological sentiments: “the news of the country is very bad; and it seems as though all predictions, visions, etc., have this time been verified, for they predicted a great number of scourges.”⁸⁰ Doubts over the legitimacy of the king were exacerbated by a series of natural disasters during the 1690s. Despite “the immense care of the king,” damaging wildfires ran rampant, and in an incident “which seemed almost a prodigy,” the fish of the Chao Phraya river—an important food source—were almost eliminated by some sort of algal bloom. Having been “deep and clear” on February 28, 1693, all of a sudden “the water became so thick and green that it would be suitable to dye with. A sort of cream, even thicker and greener, covered the entire surface. A prodigious quantity of fish died, and no one dared eat those which survived.”⁸¹ The event, which lasted a fortnight, led to further dark rumors: “the water has not been potable for many days,” wrote one missionary, “everybody had cause to found a thousand imaginings on that.”⁸²

The drought became worse still in 1696, and against this backdrop epidemics struck again: “malign fevers corrupted the blood and carried off the sick in a few days with great evacuations of blood through the nose and the mouth. Finally, as if things couldn’t get any worse, smallpoxes [*petites véroles*] ravaged the whole kingdom.”⁸³ This outbreak featured multiple forms of the disease: “One of the great evils caused by the drought of the past year and this year was a smallpox of many types—there were pestiferous and spotted ones—they carried off such a large number of people of every age and condition, that it was unbelievable.”⁸⁴ In June Antonio Pinto estimated the death toll at around 40,000 since January of that year, adding “there is no more space in the temples to bury the dead, and the countryside is also full. In one temple alone, our neighbor, in three months alone, 4200 had already been buried.”⁸⁵

However, while Petratcha’s reign would continue to face turmoil, missionary letters suggest that in Ayutthaya at least he was successful in demonstrating kingly merit through his handling of this devastating epidemic. In his dealings with the French, he struck a different balance to Narai in the way that he co-opted foreign ideas, personnel, and technologies. In his response to the smallpox epidemic, on the one hand, he did sponsor the experimental use of a French technique to limit the spread of the virus. “He accepted and praised highly the advice which [Louis Laneau] had offered to him shortly before he

80 M. Pinto to M. Basset, June 10, 1696, in Launay 1920, 1:290.

81 Pallegoix 1854, 2:193.

82 Pinto in Launay 1920, 1:290.

83 Ibid.

84 M. Poquet aux Directeurs du Séminaire, in Launay 1920, 1:29.

85 Pinto in Launay 1920, 1:290.

died [in 1696], to have his people purged and bled. By public order he commanded that everybody follow this advice of the bishop, and that every evening he was given a report on the numbers bled.”⁸⁶ This prophylactic measure, aimed at reducing the severity of smallpox infections, was in many ways foreign to Siamese medical theories and approaches, which did not employ venesection or phlebotomy bloodletting techniques. In some ways, then, Petratcha demonstrated that he was also willing to experiment with foreign innovations which might provide a solution.

On the other hand, his most successful measures emphasized his role as a Buddhist monarch.⁸⁷ He expanded royal provision of material assistance, showing himself to be, in the words of the missionaries, “a good father; having his physicians visit the sick, publicly distributing remedies and money.”⁸⁸ These measures were joined to activities which demonstrated his patronage of the Sangha and the Dhamma: “performing himself, and prescribing for all his people sacrifices, exorcisms, public prayers, holy waters, and a thousand other ceremonies which the monks perform outside and inside the city.”⁸⁹ Furthermore, he provided that a famous statue of the Buddha be carried in procession around the kingdom.⁹⁰ At the same time, the missionaries had been performing similar rituals in an attempt to bring the epidemic to an end, with public prayers and a public procession of saints’ relics. This was, of course, also a tried and tested approach to managing epidemics in Catholic Europe. Sure enough, the rains came and the epidemic eased. To the missionaries’ dismay, however, the restoration of order was attributed to the king’s program of ritual action, rather than the new spiritual solutions they were attempting to introduce. Moreover, the rains brought down the roof of their church.⁹¹

Conclusion

Being the one disease successfully and intentionally eradicated around the world, smallpox features prominently in most narratives of the rise of “Western” medicine.⁹² Yet through careful analysis we can recover traces of experiments and dialogues which occurred alongside or counter to this

86 Ibid.

87 Forest 1998, 1:121–22.

88 Pinto in Launay 1920, 1:290.

89 Ibid.

90 Ibid.

91 Ibid., 291.

92 On this see, *inter alia*, Arnold 1988; Bhattacharya 2006; Jannetta 2007; Bennett 2020.

narrative. We can reread eighteenth-century accounts of the “discovery” of variolation, for example, to foreground the experimental practices of the Greek women in Istanbul who developed the technology.⁹³ We can shed new light on other strategies to exploit the potential of immunity, from subcutaneous inoculation in South Asia and Africa to variolation by nasal insufflation in parts of East Asia.⁹⁴ We can explore the interaction between spiritual, medical, and social approaches to halt epidemics, recognizing that these spheres often had no clear boundaries to our actors. Uncovering more complex histories in this way, we can reveal ordinary people’s agency, and challenge Eurocentric narratives.⁹⁵ This approach can reveal how experiences of epidemic outbreaks could help reshape popular understandings of disease etiology, and to stimulate experimentation and exchange by a range of actors.

This article has offered an approach to deconstruct the social meaning of smallpox in seventeenth-century Siam by reading outsider sources against the grain. I have suggested ways to reconstruct the shifts which epidemics brought about in understandings of the etiologies and consequences of disease. I have highlighted processes of experimentation and exchange as key impulses in communities which suffered repeated outbreaks. As we have seen, epidemics inspire intercultural investigation. By the seventeenth century, there was recognition among many European and Asian scholars that some parts of the world suffered more from certain diseases, and a number of concomitant attempts to understand why.⁹⁶ Reports from distant lands were mined for information which could be applied locally. Travelers were incentivized to learn from the communities they visited and, vice versa, many communities took advantage of new ideas which arrived with outsiders. In Siam, we saw how changing understandings of the social meaning of the disease could favor or work against the adoption of new approaches. Although the sources only permit glimpses of these experiments, we can attempt to contextualize them against contemporary mores and beliefs. In so doing we can attempt to reconstruct what the experience of an epidemic might “mean” for a community

93 Eriksen 2020, 6–7.

94 As described by La Condamine 1773, 496–97. See, e.g., Boomgaard 2003, 602; Jannetta 2007; Naono 2009, 9; Trambaiolo 2014; Thompson 2015, 60–65; Grant 2019; Bennett 2020, 19.

95 Kelton 2004.

96 See, for example, Zhang 2002, 177–97.

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