

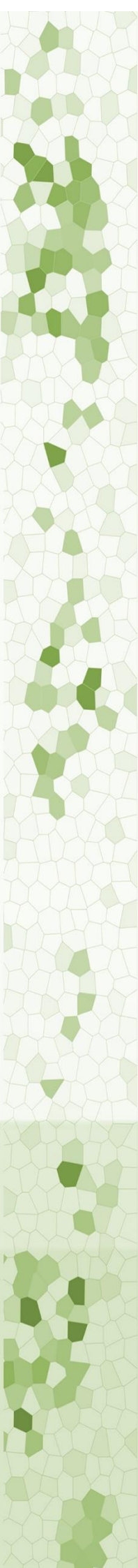


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Managing Epidemics in Post-Imjin Korea: War, Environment, Infectious Diseases, and Medicine, 1576-1720

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**Managing Epidemics in Post-Imjin Korea: War, Environment, Infectious Diseases,
and Medicine, 1576-1720**

A dissertation presented by

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to

The Department of Translation and Interpretation and East Asian Studies

Universitat Autònoma de Barcelona

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Dissertation Supervisors: Professor Rebekah Clements, Professor James B Lewis

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Abstract

Among the after effects of the devastating Imjin War of 1592-1598, famines and infectious diseases in particular caused huge problems for the Chosŏn Korean population, and presented challenges for the central government and local administrators alike. In this dissertation, I examine the national and local calamities caused by epidemics, how the government managed epidemics, and how local forces shared health and relief responsibilities. I trace an unbroken line of epidemic outbreaks, which stretched from the wartime epidemics during the Imjin War to the outbreaks in the early eighteenth century, offering case studies that show variously how different approaches to epidemic management affected the course of the war itself, how the environment was intimately intertwined with outbreaks, how individuals and potential carriers, including soldiers, prisoners, and displaced people, became the focus of Chosŏn official and private relief measures throughout the seventeenth and eighteenth centuries, and how epidemics were managed in the context of diplomatic relations between Chosŏn and other East Asian states.

The dissertation opens with a quantitative study (Chapter 1) of epidemics in the late Chosŏn dynasty, from the mid-sixteenth century until the 1730s, in order to provide an overview of the frequency and severity of outbreaks over the course of this period. This section scrutinizes the reliability of the records relating to epidemics in three primary official documents *Chosŏn wangjo sillok* (Annals of the Chosŏn Dynasty 朝鮮王朝實錄), *Pibyŏnsa tŭngnok* (Records of the Border Defence Council 備邊司謄錄), and *Sŭngjŏngwŏn ilgi* (Journal of the Royal Secretariat 承政院日記). Scholarship to

date has tended to rely mainly on the *Sillok*, and my study is the first to combine all three official sources. Moreover, I introduce another reference, an important but neglected primary source, *Röje tŭngnok* (*Transcribed records on ritual for abandoned spirits* 厲祭騰錄) that recorded the official rituals performed for the souls of those who died during epidemics. Records relating to epidemics in these sources were made into a dataset, and subjected to a spatial-temporal analysis using GIS software. This approach helps to show the spatial focuses of the official documents regarding epidemic reports and the patterns of the epidemics in the late Chosŏn dynasty. Lastly, to add to the accuracy of the official documents, especially in the 1610s for which there are no official records, I also added diaries from the Korean Studies Institute database, in order to supplement the quantitative data and also to provide material for qualitative analysis of eyewitness information about epidemics.

After this quantitative survey, the dissertation moves into qualitative analysis, considering five detailed case studies (Chapters 2-6) and depicting the history of epidemics from the perspective of environmental history, the history of medicine, social history and foreign relations. The first two case studies (Chapters 2 and 3) explain the environmental causes of the epidemics and show the routine measures adopted by the Chosŏn government against outbreaks such as medicine distribution, the construction of central medical institutes, and the compilation of medical texts. By considering the three combatant states, Korea, Japan and China, Chapter 2 argues that the differing medical development of the three combatant states determined the measures that they took against the epidemic outbreaks that struck armies on both sides in the first few months of 1593. These outbreaks, and the responses to them, I argue, affected the course of the Imjin War, contributing to the stalemate and peace negotiations of 1593. Chapter 3 shows that post-Imjin environmental degradation and extreme climate induced people in the northern provinces to take flight and they transmitted infectious diseases nationwide in the 1610s. The government's response to this crisis – the reconstruction of medical institutes, the assembling of physicians, and the compiling of medical booklets formed the primary contents of medical administrative measure against epidemics for centuries.

Since basic medical treatment was not particularly effective against epidemics, the Chosŏn government tried new approaches, such as the temporary release of infected prisoners and isolating infected and displaced people. Chapter 4 therefore examines the impacts of epidemics on prisons, arguing that the experiences of medical administration, quick sentencing and temporary release during outbreaks at prisons continued to function in the subsequent centuries, thus helping to improve prisoner relief and supplement the relevant laws. In Chapter 5, I examine an early form of quarantine in which local administrators also participated in and shared the medical care and relief responsibilities from the second half of the seventeenth century onwards. I argue that epidemic outbreaks were understood as natural disasters rather than medical crises premodern Korea, that these early efforts, albeit ostensibly conducted for the health of people, were in fact aimed at disaster relief and stabilizing central control. In this way, Chosŏn Korean approaches to epidemic management exhibit few features in common with medical treatment and were not a form of early public health.

Lastly, Chapter 6 considers the impact of epidemics beyond Korea's borders, specifically smallpox and rinderpest that struck seventeenth-century East Asia. I argue that smallpox outbreaks impacted not only domestic society but also foreign relations with the Qing empire. The Chosŏn government carefully treated the infected Qing envoy and asked for permission to change the rituals that were used to greet the Qing envoys, in order to minimize the impacts of smallpox on Sino-Chosŏn relations.

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Introduction

When it comes to the years *kyöngsul* (1670) and *sinhae* (1671), it is hard to tell of the misery. No greater severe epidemic outbreaks and starvation exceeded these two years. No greater displacement and numbers of deaths exceeded these two years... The changes in these two years were indeed extraordinary. Policy measures in these years were also extraordinary.¹

Yi Wönjǒng, 1672

Yi Wönjǒng 李元禎 (1622-1680), a Chosŏn minister, survived the epidemics and famines that ravaged the Korean peninsula during 1670-1671. Those years are known as the Great Famine of *Kyöng-sin*, and he made the above comments in 1672. Aside from the emphasis on their tremendous impact on Korean society, his comments also suggest that both the epidemics and the responses of the ruling class were clearly different from other epidemic and famine years. In other words, society had fallen into an abnormal state and required extraordinary policies to rehabilitate the country. The pressure prompted the Chosŏn government to keep adopting new practices to respond to the emerging crisis.

This dissertation explores the history of epidemic management in pre-modern Korea from the late sixteenth to the early eighteenth centuries. Viewing Korean history through the lens of outbreaks, it also seeks to present their causes and transmission patterns, and examine approaches to mitigate their detrimental impact. After the Imjin War (1592-1598), the Chosŏn government was left shattered. An earlier medical system had also collapsed due to the war and failed to function sufficiently in the seventeenth century marked by continuous famines and disease outbreaks. Rather than running as a coherent and integrated medical system, a diverse range of medical administrations and practices emerged that supplemented the central medical institutes. All were trying to relieve those affected, including infected soldiers, displaced people, prisoners, some commoners, and even prevent smallpox from threatening Chosŏn kings. While existing

¹ Yi Wönjǒng 李元禎. *Kwiamjip* 歸巖集. In *Han'guk munjip ch'onggan* vol. 35. 1937. Seoul: Kyöngin Munhwasa, 1997.

scholarship has praised scientific medical developments, this study focuses on low-tech practices. Although not sufficiently systematic, they had their value and had broad implications for the long history of epidemic management, as can be seen from early trials of temporary quarantine and release.

Before turning to the main concerns of this study, as presented in later chapters, we should preface those case studies by offering scholarly context. This introduction considers the acceptance of infectious diseases as a historical actor and notes attempts to place epidemics and the management of epidemics within world history. Because this study is concerned with Korea, the introduction reviews Korean historiography on crisis management, the history of epidemics in Korea, and outlines the medical system of the Chosŏn dynasty. Thus, this introduction places the study in the scholarly debate and outlines the general context before later chapters turn to the focus of this research and to particular case studies.

Infectious diseases as a historical actor

The reasons to study epidemics are both historical and practical. Although my initial ideas on the history of epidemics in pre-modern Korea pre-dated the global pandemic that began from the winter of 2019-2020, and is still going on as I write, the first-hand experience of living daily life in a pandemic has confirmed the relevance of studying historical epidemics. Our public health officers and policymakers struggle with similar questions about infectious diseases that have bedevilled predecessors. What can be done to stop the pandemic? How is the pandemic affecting economy, society, and politics? How do we recover? History might well provide authentic and relevant answers.

Infectious diseases have taken on agency in the past, and various types of infectious diseases and their tremendous impacts on humans and society have been studied: plagues, cholera, malaria, measles, smallpox, influenza, typhus, yellow fever, tuberculosis, AIDS/HIV, and now even COVID.² Even a single outbreak has left

² Frank M Snowden, *Epidemics and Society from the Black Death to the Present* (Yale University Press, 2020).

demographic traces, and there is almost no time in human history when epidemics do not loom large.³ For example, the havoc resulting from the flu of 1918 to 1920 has been a concern for nearly a century. The estimated death toll ranges from 17 million to 50 million, with over 500 million cases of infection or approximately 30 percent of the human population at the time.⁴ Infectious diseases have also had political effects. The pioneering work of J. R. McNeill details the impacts of mosquitos on warfare and colonial politics in the Greater Caribbean. The mosquitos carried yellow fever and malaria from West Africa to the sugar and rice plantations of the New World. Whereas West Africans had some degree of immunity, their European overlords had none.⁵ Social disorder erupted as societies searched for scapegoats. Thousands of Jews were slaughtered by Christian mobs in Europe during the Black Death; racial and anti-foreign riots broke out in many countries such as Russia, Britain, Germany, France, and America during nineteenth-century cholera outbreaks, the Spanish were blamed for the 1918 influenza, and the Chinese have been blamed for the 2019-? Corona virus outbreak.⁶ Outbreaks brought economic repercussions but also offered some opportunities such as the invasion of foreign lands, interference in society by administrations, the establishment of cross-border medical institutes to solve endemics, and the exchange of medical intelligence.⁷

The historical resonance of infectious diseases appears similarly in human responses to continuous emerging diseases. Recent lockdowns recall the classical scenes during plagues of people being confined to indoors with police watching their doors.⁸ However, governments and state agencies are increasingly allaying public anxieties about

³ Guido Alfani and Tommy E. Murphy, 'Plague and Lethal Epidemics in the Pre-Industrial World', *The Journal of Economic History* 77, no. 1 (March 2017): 314–43.

⁴ George Dehner, *Influenza: A Century of Science and Public Health Response* (Pittsburgh: University of Pittsburgh Press, 2012), 44.

⁵ J. R. McNeill, *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620–1914*, New Approaches to the Americas (Cambridge: Cambridge University Press, 2010).

⁶ Jr Samuel K. Cohn, *Epidemics: Hate and Compassion from the Plague of Athens to AIDS, Epidemics* (Oxford University Press, 2018); Remi Jedwab et al., 'Epidemics, Pandemics, and Social Conflict: Lessons from the Past and Possible Scenarios for COVID-19', *World Development* 147 (November 2021): 105629.

⁷ George D. Sussman, *From Yellow Fever to Cholera: A Study of French Government Policy, Medical Professionalism and Popular Movements in the Epidemic Crises of the Restoration and the July Monarchy* (Yale University, 1971); João Rangel de Almeida, 'Epidemic Opportunities: Panic, Quarantines, and the 1851 International Sanitary Conference', in *Empires of Panic: Epidemics and Colonial Anxieties* (Hong Kong: Hong Kong University Press, HKU, 2015), 57–86.

⁸ John Booker, *Maritime Quarantine: The British Experience, c.1650–1900* (Routledge, 2016).

the spread of diseases and the potential for more cataclysmic happenings.⁹ Intellectual authority and governmentality are accurately embodied in the proclamations of quarantine and vaccination, where the apparatus of power is operating in other formats of medical administration in the name of public health.¹⁰ Anti-restrictions or anti-vaccination campaigns take place, opposed to either the vaccination itself or its compulsion. A pandemic is truly an international affair exploiting collaborative efforts as a single country with a high vaccination rate cannot thwart global transmission. Some governments politicize the virus origins, and some governments have allotted expired vaccines to less developed countries. The similarities between the past and the present suggest that historians can play a significant role in collaborative and multidisciplinary research by exploring the histories of diseases, thereby contributing to derailing epidemic threats and so providing safety for all.

To study the history of epidemics is to see them not as random events, but to study the mechanism of outbreaks and to decipher the myriad challenges embedded in a society's structure, political priorities, and medical capabilities as they respond to disease events. This dissertation aims to shed light on epidemic management from the historical case of Chosŏn Korea and to trace the relations among the environment, infectious diseases, and medicine.

Global studies of epidemics

The history of epidemics has been well discussed from various perspectives, including causes, transmissions, impacts, and treatments. The origins of epidemics have been partially attributed to environmental and natural causes, such as the obvious phenomena of climate changes and extreme weather, and some less well-known events such as irregular solar activities.¹¹ For the seventeenth century in Korea, paleoclimatic studies show that climate changes caused poor harvests, starvation, displacement, and

⁹ Robert Peckham, *Empires of Panic: Epidemics and Colonial Anxieties* (Hong Kong: Hong Kong University Press, 2015).

¹⁰ Michel Foucault, *The Birth of the Clinic: An Archaeology of Medical Perception*, 3rd ed. (Routledge, 2003).

¹¹ Takuya Sagawa et al., 'Solar Forcing of Centennial-Scale East Asian Winter Monsoon Variability in the Mid- to Late Holocene', *Earth and Planetary Science Letters* 395 (1 June 2014): 124–35. Geoffrey Parker, *Global Crisis - War, Climate Change and Catastrophe in the Seventeenth Century* (Yale University Press, 2013): 10-14.

myriad other catastrophes, including epidemics.¹² Likewise, relevant to the present study, geographic studies have supplemented historical studies on pandemics and linked them to volcanic eruptions, such as will be seen in Chapter 3 of this dissertation.¹³ Thus, the interdisciplinary approach, combining elements of geography and paleoclimatology reveal hybrid causes of some historical epidemic outbreaks and can shed light on the questions posed by this dissertation.

Some climate and environmental changes are also highly related to human activities. In pre-modern history, increasing population growth still required the expansion of agricultural lands via deforestation. By intruding into forest habitats, humans directly interfaced with living things in the wild environment. Animals potentially carried zoonotic pathogens and increased the risk for a host jump, forming a zoonotic transmission.¹⁴ For example, the ecological disruption caused by the sugar plantations in the Caribbean created conditions for mosquitoes and subsequent outbreaks of yellow fever and malaria for centuries from the late seventeenth century. More current scholarship has taken a fresh look at mosquitoes and questions the relations between the eradication of mosquitoes and elimination of yellow fever and malaria and offers insight on coexistence with mosquitoes.¹⁵ Likewise, livestock were helpful agricultural cultures but also increased the risk of spreading zoonotic diseases.¹⁶ Zoonotic transmission can additionally happen through zoos and livestock intensification in industrial civilization.¹⁷ Emerging zoonotic diseases invite new reflections on the human-animal relationship in the history of epidemics.

Among all human activities, past studies have highlighted the importance of population movement in virus transmission routes, including phenomena such as

¹² Geoffrey Parker, *Global Crisis - War, Climate Change and Catastrophe in the Seventeenth Century* (Yale University Press, 2013).

¹³ Henry G. Fell et al., 'Volcanism and Global Plague Pandemics: Towards an Interdisciplinary Synthesis', *Journal of Historical Geography* 70 (1 October 2020): 36–46.

¹⁴ Di Lu, 'History of Epidemics in China: Some Reflections on the Role of Animals', *Asian Medicine* 16, no. 1 (13 August 2021): 137–52. Marcia C. Castro, 'Malaria Transmission and Prospects for Malaria Eradication: The Role of the Environment', *Cold Spring Harbor Perspectives in Medicine* 7, no. 10 (October 2017).

¹⁵ J. R. McNeill, *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620–1914*, New Approaches to the Americas (Cambridge: Cambridge University Press, 2010); Marcus Hall and Dan Tamir, *Mosquitopia: The Place of Pests in a Healthy World* (Routledge, 2021).

¹⁶ François Meurens et al., 'Animal Board Invited Review: Risks of Zoonotic Disease Emergence at the Interface of Wildlife and Livestock Systems', *Animal* 15, no. 6 (1 June 2021): 100241.

¹⁷ Sean Kheraj, 'The Great Epizootic of 1872–73: Networks of Animal Disease in North American Urban Environments', *Environmental History* 23, no. 3 (7 January 2018): 495–521.

colonization, immigration, trade, and war. The Columbian exchange brought new germs such as smallpox to native Americans who hosted none of the infectious diseases that had long bedevilled most of Eurasia and Africa.¹⁸ In numerous wars, more people died of infectious diseases such as typhus, dysentery, and malaria than in combat.¹⁹ For example, the Mongol invasions and Mongol expansion across Eurasia are currently considered as one major reason for the spread of the second pandemic - the Black Death.²⁰ Even in domestic wars, infectious diseases could be catastrophic, for example, diseases rife during the continuous battles during the transition from the Ming dynasty (12368-1644) to the Qing dynasty (1636-1912) in China are often cited as a factor in the dramatic depopulation that occurred at this time.²¹ Combined with international trade and advanced transportation, infectious diseases had ample opportunity to spread globally. For example, Dubrovnik, located in the Adriatic Sea, suffered from frequent outbreaks of plagues because it was a hub between Europe and the Ottoman Empire.²² Population displacement as a means of transmission is a recurring theme in the present study. Because displaced people were carriers, they became a targeted group who faced government restrictions and even isolation by the Chosŏn government.

Since William McNeill traced the inextricably entwined history of epidemics and human history in his book *Plagues and Peoples*, the history of epidemics has considered human activities as the most significant causes of outbreaks and transmissions. Turning the point around, narratives of human history have also examined the impacts of epidemics and achieved a consensus that microbes shaped human history.²³ Emerging infectious diseases have continued to call historians to

¹⁸ Jared Diamond, *Guns, Germs, and Steel: The Fates of Human Societies (20th Anniversary Edition)* (W. W. Norton & Company, 2017); Alfred W. Crosby, *The Columbian Exchange: Biological and Cultural Consequences of 1492* (Greenwood Publishing Group, 2003).

¹⁹ Rebecca M Seaman, ed., *Epidemics and War: The Impact of Disease and Major Conflicts in History* (Santa Barbara, California Denver, Colorado: ABC-CLIO, LLC, 2018).

²⁰ Francis Aidan Gasquet, *The Black Death of 1348 and 1349* (London: G. Bell, 1908). Kim Sunja 김순자, 'Koryŏ sidae ūi chŏnjaeng, chŏnyŏmbyŏng kwa in'gu 고려시대의 전쟁, 전염병과 인구', in *Chŏnyŏmbyŏng ūi munhwasa Koryŏ sidae rŭl ponŭn tto hana ūi sisŏn* 전염병의 문화사 고려시대를 보는 또 하나의 시선(Seoul: Hyeon 헤안, 2010).

²¹ Cao Shuji 曹树基 and Li Yushang 李玉尚, *Shuyi: Zhazheng yu heping zhongguo de huanjing zhuangkuang yu shehui bianqian: 1230-1960* 鼠疫：战争与和平 中国的环境状况与社会变迁：1230-1960 (Jinan 济南: Shandong huabao chubanshe 山东画报出版社, 2006). Timothy Brook, *The Troubled Empire* (Harvard University Press, 2010).

²² Zlata Blažina Tomić and Vesna Blažina, *Expelling the Plague: The Health Office and the Implementation of Quarantine in Dubrovnik, 1377-1533* (McGill-Queen's University Press, 2015).

²³ William McNeill, *Plagues and Peoples* (Knopf Doubleday Publishing Group, 2010[1976]); Dorothy H Crawford,

reflect on their impacts on the historical process.²⁴ For example, the environmental evils of early industrial urbanization and the movements of British Army soldiers and British Navy ships became reasons for the spread of cholera in the nineteenth century from India to most other countries, thereby stimulating the establishment of urban systems of sanitation.²⁵ The resulting public health reforms and social turmoil that followed in cholera's wake provoked the appearance of revolutionary governments, such as in Prussia and the Soviets.²⁶ Overall, cholera has been intertwined with different aspects of history and even altered the historical narratives of imperialism, industrialization, politics, trade, science, and public health responses. Although most epidemics were undeniably devastating, a recent study on the Justinianic plague, known as the 'First Pandemic,' rejects the current scientific and humanistic consensus on the plague as a major cause of demographic change in the sixth-century Mediterranean region. Mordechai and Eisenberg assert that the label 'First Pandemic' is problematic.²⁷ They remind us to be critical in discussing the relation between human history and disease outbreaks.

Epidemic management

In the long history of humans grappling with epidemics, the existing studies in world history have introduced three main forces that act upon epidemic management. Firstly, especially in pre-modern history, religions directly shaped the perceptions of contagious diseases as divine punishment and religious institutes occasionally arranged relief for the sick and the destitute.²⁸ Some religious rituals advocated relatively

Deadly Companions: How Microbes Shaped Our History (Oxford: Oxford University Press, 2009).

²⁴ George Dehner, *Influenza: A Century of Science and Public Health Response* (Pittsburgh: University of Pittsburgh Press, 2012).

²⁵ Manikarnika Dutta, 'Cholera, British Seamen and Maritime Anxieties in Calcutta, c.1830s–1890s "The William Bynum Prize Essay"', *Medical History* 65, no. 4 (October 2021): 313–29; Erica Charters, *Disease, War, and the Imperial State: The Welfare of the British Armed Forces during the Seven Years' War* (Chicago: University of Chicago Press, 2014).

²⁶ Richard S. III Ross, *Contagion in Prussia, 1831: The Cholera Epidemic and the Threat of the Polish Uprising* (McFarland, 2015); John P. Davis, *Russia in the Time of Cholera: Disease under Romanovs and Soviets* (London: I.B. Tauris, 2018).

²⁷ Lee Mordechai et al., 'The Justinianic Plague: An Inconsequential Pandemic?', *Proceedings of the National Academy of Sciences* 116, no. 51 (17 December 2019): 25546–54; Lee Mordechai and Merle Eisenberg, 'Rejecting Catastrophe: The Case of the Justinianic Plague', *Past & Present* 244, no. 1 (8 January 2019): 3–50.

²⁸ Melvin Santer, *Confronting Contagion: Our Evolving Understanding of Disease* (Oxford University Press, 2014). Martin Stuber, 'Divine Punishment or Object of Research? The Resonance of Earthquakes, Floods, Epidemics and Famine in the Correspondence Network of Albrecht von Haller', *Environment and History* 9, no. 2 (2003): 171–93. Terence Ranger and Paul Slack, eds., *Epidemics and Ideas: Essays on the Historical Perception of Pestilence*, Cambridge: Cambridge University Press, 1996.

hygienic behaviours, for example, the transportation of dead bodies out of towns and body washing offered some controls over contagion, although these measures were too scattered to be called systematic epidemic management.²⁹

Secondly, in some states, governments played an irreplaceable role in epidemic management. To mitigate the Black Death, European countries gradually implemented some preventative measures such as health offices, the dispatch of doctors, health quarantine at harbours, and dead body management, which formed early efforts at public health. In modern times, international collaborative regulations and the promotion of vaccination have also appeared.³⁰ These efforts served in the name of public health but also distinguished the infected, labelled as abnormal, from other people. Taking the initial practice of quarantine as an example, the U.S. government isolated the asymptomatic transmitter of typhoid fever, Mary Mallon (1869-1938), for a total of 26 years and she died alone and without friends, albeit showing no symptoms.³¹ In forcibly isolating her, U.S. authorities were regulating the everyday life of an individual. This type of regulation inspired Michael Foucault's philosophical reflections on population control and political security, what he later designated as biopolitics or biopower. Foucault argued that compulsory disciplines like quarantine rules were used to produce objects suitable for administration.³² Relating these discussions to the quarantine practices in pre-modern Korean history are offered in Chapter 5.

Thirdly, multiple remarkable medical developments have helped humans overcome some types of infectious diseases, decrease death tolls, and mitigate suffering. For example, smallpox has been completely eradicated and other infectious diseases such as plague, cholera, malaria, and tuberculosis do not present as much of a threat as

²⁹ Howard Phillips, '17, '18, '19: Religion and Science in Three Pandemics, 1817, 1918, and 2019', *Journal of Global History* 15, no. 3 (November 2020): 434–43; Andrew Cunningham and Ole Peter Grell, *The Four Horsemen of the Apocalypse: Religion, War, Famine and Death in Reformation Europe* (Cambridge: Cambridge University Press, 2000).

³⁰ George Rosen, *A History of Public Health* (JHU Press, 1958), 81; Booker, *Maritime Quarantine*. Kira L. S. Newman, 'Shutt Up: Bubonic Plague and Quarantine in Early Modern England', *Journal of Social History* 45, no. 3 (3 January 2012): 809–34; Richard S. III Ross, *Contagion in Prussia, 1831: The Cholera Epidemic and the Threat of the Polish Uprising* (McFarland, 2015); John Booker, *Maritime Quarantine: The British Experience, c.1650–1900* (Routledge, 2016); Sevasti Trubeta, Christian Promitzer, and Paul Weindling, eds., *Medicalising Borders: Selection, Containment and Quarantine since 1800*, 2021.

³¹ Filio Marineli et al., 'Mary Mallon (1869-1938) and the History of Typhoid Fever', *Annals of Gastroenterology: Quarterly Publication of the Hellenic Society of Gastroenterology* 26, no. 2 (2013): 132–34; Priscilla Wald, 'Cultures and Carriers: "Typhoid Mary" and the Science of Social Control', *Social Text*, no. 52/53 (1997): 181–214.

³² Michel Foucault, *The Birth of Biopolitics: Lectures at the Collège de France, 1978–1979* (New York: Picador, 2010); Michel Foucault, *The Birth of the Clinic: An Archaeology of Medical Perception*, 3rd ed. (Routledge, 2003); Michel Foucault, *Security, Territory, Population: Lectures at the Collège de France 1977–1978* (St Martins Press, 2007); Craig Albert, Amado Baez, and Joshua Rutland, 'Human Security as Biosecurity: Reconceptualizing National Security Threats in the Time of COVID-19', *Politics and the Life Sciences* 40, no. 1 (2021): 83–105.

before.³³ A separation of the causes of diseases from supernatural origins is the foundation of modern science, but similar arguments have appeared earlier than recent centuries. In early antiquity in Greece, Hippocrates (ca. 460 to ca. 377 BC) criticised supernatural interpretations of diseases and created a medical philosophy emphasizing natural causes, which he named humoralism and applied to treat people during the Great Plague of Athens (430–428 BC).³⁴ Following in the footsteps of Hippocrates, the Roman physician Galen (129 – c. AD 216) then attributed plagues to the air and physicians continuously noted epidemics could be transmitted through not only the natural elements such as breath, water, and dirt, but also contagious objects like garments, vessels, and earrings.³⁵ However, it was not until the late seventeenth century that some contagious diseases were shown to be caused by bacteria, because the advance of microscopy enabled bacteria to be seen, and this step marked the establishment of epidemiology. Although the word ‘epidemiology’ was coined in the latter part of the nineteenth century (ca. 1873), researchers endeavoured to discover pathogens and prevent infections. John Snow (1813-1858) and William Budd (1811-1880) identified contaminated water as a transmitter of cholera and typhoid in the late nineteenth century.³⁶ In the field of vaccination, evolutionary medical discoveries from inoculation to vaccination explained why smallpox outbreaks receded and the remarkable vaccine innovation made by Edward Jenner in 1796 guided humankind to the ultimate eradication of smallpox in 1980.³⁷ Thus the history of infectious diseases also has witnessed numerous breakthroughs ranging from medical theories, public health and medicine, vaccines, and the application of other scientific approaches.

In comparison with the many studies on epidemics that already exist in English-

³³ For more historical epidemics and medical developments, see Snowden, *Epidemics and Society from the Black Death to the Present*; Keir Waddington, *An Introduction to the Social History of Medicine: Europe Since 1500* (Macmillan Education UK, 2011); Mark Harrison, *Disease and the Modern World: 1500 to the Present Day* (Wiley, 2004); J. N. Hays, *The Burdens of Disease: Epidemics and Human Response in Western History*, REV-Revised (Rutgers University Press, 2009); Crawford, *Deadly Companions*.

³⁴ Georgios Pappas, Ismene J. Kiriaze, and Matthew E. Falagas, ‘Insights into Infectious Disease in the Era of Hippocrates’, *International Journal of Infectious Diseases* 12, no. 4 (1 July 2008): 347–50.

³⁵ Rebecca Flemming, ‘Galen and the Plague’, *Galen’s Treatise Περὶ Ἀλωπίας (De Indolentia) in Context*, edited by Caroline Petit. Leiden: Brill, 2018, 219–44.

³⁶ K. S. McLeod, ‘Our Sense of Snow: The Myth of John Snow in Medical Geography’, *Social Science & Medicine* (1982) 50, no. 7–8 (April 2000): 923–35.

³⁷ Stefan Riedel, ‘Edward Jenner and the History of Smallpox and Vaccination’, *Proceedings* 18, no. 1 (January 2005): 21–25.

language scholarship, the lack of regional concentration on epidemics in East Asia appears obvious, in particular, on the Korean peninsula where this study is focused.³⁸ However, a review of East Asian literature on the history of epidemics suggests that there is a close resemblance between developments of research in this field for China, Korea, and Japan. As the following will introduce more Korean research in detail, there is a need to briefly summarize the current scholarship on the history of epidemics in China and Japan.

Epidemic-related studies have often fallen under the history of disasters, where not only historians but also geographers have utilized a quantitative approach to present the temporal and spatial patterns of historical epidemics. Gong Shengsheng has directed a team for decades to collect epidemic-related records, and the team just published five volumes that cover over three thousand years of data from various Chinese historical materials.³⁹ Similarly, research on Japanese epidemics has been built on the history of disasters since the last century.⁴⁰ There are also a growing body of individual works discussing a single historical period or region to supplement the broad picture of epidemics in history.⁴¹

Meanwhile, East Asian historical writing on the histories of disease and medicine has utilized abundant medical texts to discuss infectious diseases from the

³⁸ There is a list of studies on epidemics in East Asia but most of them focus on the modern history of East Asia. Marta E. Hanson, *Speaking of Epidemics in Chinese Medicine: Disease and the Geographic Imagination in Late Imperial China* (London and New York: Routledge, 2011); Mary Augusta Brazelton, *Mass Vaccination: Citizens' Bodies and State Power in Modern China* (Ithaca, NY: Cornell University Press, 2019); Carol Ann Benedict, *Bubonic Plague in Nineteenth-Century China* (Stanford University Press, 1996); Angela Ki-che Leung, *Leprosy in China: A History* (Columbia University Press, 2009); Ruth Rogaski, *Hygienic Modernity: Meanings of Health and Disease in Treaty-Port China* (Univ of California Press, 2014); Miriam Gross, *Farewell to the God of Plague: Chairman Mao's Campaign to Deworm China* (Univ of California Press, 2016); William C. Summers, *The Great Manchurian Plague of 1910-1911: The Geopolitics of an Epidemic Disease* (Yale University Press, 2012). Dongwon Shin, 'Measures against Epidemics in Late Eighteenth Century Korea: Reformation or Restoration?', in *Science and Confucian Statecraft in East Asia* (Leiden; Boston: Brill, 2019), 215–34; Bettina Gramlich-Oka, 'The Body Economic: Japan's Cholera Epidemic of 1858 in Popular Discourse', *East Asian Science, Technology, and Medicine*, no. 30 (2009): 32–73. See also studies on famines and epidemics, William W Farris, *Japan's Medieval Population: Famine, Fertility, and Warfare in a Transformative Age* (Honolulu: University of Hawai'i Press, 2006).

³⁹ Gong Shengsheng 龚胜生, *Zhongguo sanqiannian yizai shiliao huibian* 中国三千年疫灾史料汇编 (Shandong: Qilu shushe 齐鲁书社, 2019); Gong Shengsheng 龚胜生 et al., 'Zhongguo lishi shiqi bingyi zaihai de shikong bianqian yanjiu, 中国历史时期兵疫灾害的时空变迁研究', *Zaihaixue* 灾害学 34, no. 1 (2019): 78–86.

⁴⁰ Ogashima Minoru 小鹿島果. *Nihon saishi* 日本災異誌 (Tōkyō: Shibunkaku, 1973).

⁴¹ Minegishi Sumio 峰岸純夫. *Chūsei saigai senran no shakaishi* 中世 災害・戦乱の社會史 (Tōkyō: Yoshikawa Kōbunkan, 2011). Kikuchi Isao 菊池勇夫. *Ue to shoku no Nihonshi* 飢えと食の日本史 (Tōkyō: Yoshikawa Kōbunkan, 2019).

aspects of medical thought, treatments, and traditional Chinese medicine.⁴² Triggered by the flourishing social history of East Asian medicine and health,⁴³ the history of epidemics has also been integrated into social history in recent decades. Focusing on the social impacts of epidemics on daily life, studies have examined how institutions and individuals have handled the daily threats posed by leprosy, plague, syphilis, cholera, and others.⁴⁴ Current scholarship has also taken note of the multiple approaches to mitigate calamities brought by outbreaks, thereby investigating the intellectual history of medicine, knowledge circulation, and the supplemented roles of local pharmacies and organizations.⁴⁵ More broadly, viewing epidemics as historical actors, recent scholarship has also shed new light on some historical transitions and the process of civilization. For example, epidemics, most likely the plague, ravaged the collapsing governments of the Song dynasty (1127-1279) during the Mongol expansion and of the Ming government.⁴⁶ Epidemics also altered the courses of some modern historical events such as Taiping

⁴² Cf. Isoda Michifumi 磯田道史. *Kansenshō no Nihonshi 感染症の日本史* (Tōkyō: Bunshun shinsho, 2020); Tashiro Kazumi 田代和生. *Edo jidai Chōsen yakuzai chōsa no kenkyū 江戸時代朝鮮薬材調査の研究* (Tōkyō: Keiō Gijyū Daigaku Shuppankai, 1999). Li Jinmin 李进民, *Bianque biemian -fansi Zhongguo zaoqi yixue de lishi 扁鹊别脉——反思中国早期医学的历史* (Beijing: Shehui kexue wenxian chubanshe, 2020); Wang Zhenguo 王振国, ed., *Zhongyi dianji yu wenhua -duo yuan yixue jiaoliu yu rongtong 中医典籍与文化 -多元医学交流与融通* (Beijing: Shehui kexue wenxian chubanshe, 2020); Zhang Yishang 张义尚, *Zhongyi xinchuan 中医新传* (Beijing: Shehui kexue wenxian chubanshe, 2017); Zhang Shujian 张树剑, *Zhongguo zhenjiu sixiang shilun 中国针灸思想史论* (Beijing: Shehui kexue wenxian chubanshe, 2020); Zhang Shujian 张树剑, *Minguo zhenjiu xueshushi yanjiu yaolun 民国针灸学术史研究要论* (Beijing: Shehui kexue wenxian chubanshe, 2020); Yu Gengzhe 于赓哲, *Cong jibing dao renxin: Zhongguo yiliao shehuishi zaitan 从疾病到人心：中古医疗社会史再探* (Beijing: Zhonghua shuju, 2020).

⁴³ He Bian, *Know Your Remedies: Pharmacy & Culture in Early Modern China* (Princeton and Oxford: Princeton University Press, 2020); Kuriyama Shigehisa, *The Expressiveness of the Body and the Divergence of Greek and Chinese Medicine* (New York: Zone Books, 2002).

⁴⁴ Angela Ki-che Leung, *Leprosy in China: A History* (Columbia University Press, 2009); Cao Shuji 曹树基 and Li Yushang 李玉尚, *Shuyi: Zhanzheng yu heping zhongguo de huanjing zhuangkuang yu shehui bianqian: 1230-1960 鼠疫：战争与和平 中国的环境状况与社会变迁：1230-1960* (Jinan: Shandong huabao chubanshe, 2006); Yamamoto Shunichi 山本俊一. *Nihon Korera shi 日本コレラ史* (Tōkyō: Tōkyō Daigaku Shuppankai, 1982); 山本俊一, *日本コレラ史 Nihon Chorea shi* (東京大学出版会, 1982); Isoda Michifumi 磯田道史. *Kansenshō no Nihonshi 感染症の日本史* (Tōkyō: Bunshun shinsho, 2020); Fukuda Mahito 福田真人, Suzuki Noriko 鈴木則子. *Nihon baidokushi no kenkyū: Iryō shakai kokka 日本梅毒史の研究：医療・社会・国家* (Tōkyō: Shibunkaku, 2005). Nagashima Takeshi 永島剛, Ichikawa Tomō 市川智生, and Iijima Wataru 飯島渉. *Eisei to kindai: Pesuto ryūkō ni miru higashiajia no tōchi iryō shakai 衛生と近代：ペスト流行にみる東アジアの統治・医療・社会* (Tōkyō: Seihō Daigaku Shuppansha, 2017).

⁴⁵ Cf. Leung Angela Ki-che 梁其姿, *Miandui jibing chuantong Zhongguo de yiliao guannian de zuzhi 面对疾病 -传统中国社会的医疗观念的组织* (Beijing: Zhongguo renmin daxue chubanshe, 2012); Yu Xinzhong 余新忠, *Qingdai Jiangnan de wenyi yu shehui: yixiang yiliao shehuishi de yanjiu 清代江南的瘟疫与社会：一项医疗社会史的研究* (Beijing: Zhongguo renmin daxue chubanshe, 2003).

⁴⁶ Cao and Li, *Shuyi*. 2006; Timothy Brook, *The Troubled Empire* (Harvard University Press, 2010).

Rebellion, 1850-1864, and the Xinhai Revolution of 1911.⁴⁷ In this vein, the following will consider the impact of epidemics on the course of the Imjin War, especially when wartime diseases seemed unusually formidable (Chapter 2).

Korean historiography on crisis management

Existing studies recognize profound changes in demographics, politics, economics, social cohesion, and scientific development and identity changes that occurred in seventeenth-century Korea following two wars: the Imjin War or the East Asian War (1592-1598) and the Manchu invasions in 1627 and 1636.⁴⁸ Only recently the history of the environment in Korea has drawn attention from mainstream historical discourse and scholars have begun to contribute to the history of the post-Imjin environment.⁴⁹ However, the impacts of these wars on epidemic outbreaks have not been the subject of detailed research – a situation that this dissertation attempts to rectify.

In tandem with the two wars, many of the changes and crises that occurred in the seventeenth century have also been attributed to the ‘Little Ice Age,’ the dramatic temperature drop in the northern hemisphere that occurred during this time. Korean scholarship has shown that the Korean peninsula was affected by the change in temperature. A typical case based on a quantitative study of the number of records relating to disasters that have survived in the official documents of the Chosŏn Dynasty was conducted by the historian Yi Taejin who first integrated the global trend of Little Ice Age studies into Korean historiography in 1996.⁵⁰ Although the Little Ice Age was

⁴⁷ Yu Xinzong 余新忠, ‘Xiantong zhiji jiangnan wenyi tanlue --jianlun zhanzheng yu wenyi guanxi 咸同之际江南瘟疫探略--兼论战争与瘟疫之关系’, *Jindaishi yanjiu* 近代史研究 5 (2002): 79-99.

⁴⁸ There is a long list on related studies, here are some representative works. James B. Lewis, *The East Asian War, 1592-1598: International Relations, Violence, and Memory* (London and New York: Routledge, 2015); JaHyun Kim Haboush, *The Great East Asian War and the Birth of the Korean Nation*, ed. William J. Haboush and Jisoo Kim (New York: Columbia University Press, 2016); Kenneth R. Robinson, ‘Violence, Trade, and Impostors in Korean-Japanese Relations, 1510-1609’, in *The East Asian War, 1592-1598: International Relations, Violence, and Memory* (London and New York: Routledge, 2015), 42–70.

⁴⁹ John Lee, ‘Editor’s Introduction: New Perspectives from Korean Environmental History’, *International Journal of Korean History* 25 (28 February 2020): 1–13; Lee, ‘Postwar Pines: The Military and the Expansion of State Forests in Post-Imjin Korea, 1598–1684’.

⁵⁰ Yi T’aejin 이태진, ‘소빙기(1500-1750) 천변재이 연구와 조선왕조실록 -global history 의 한 장’ *Sobinggi (1500-1750) ch’ŏnbyŏn chaei yŏn’gu wa Chosŏn wangjo sillok -global history ūi han chang*, *Yŏksa hakpo*

undoubtedly significant, subsequent environmental studies on seventeenth-century Chosŏn Korea have tended to focus on this framework at the expense of other factors. Many problems have been almost exclusively attributed to ‘Little Ice Age,’ including natural disasters, epidemic outbreaks, political changes, social disorder, and medical thought, thus characterizing seventeenth-century Chosŏn Korea as a century of crises.⁵¹

Such an approach has been recently criticised by Kye Seungbum, who suggests that rather than viewing the ‘Little Ice Age’ as a single factor to explain all the changes that occurred in this period, historians need to re-examine them more comprehensively by assessing them over a longer span of time and consider other, human factors such as population changes and agricultural and economic development.⁵² In this vein, this dissertation views the ‘Little Ice Age’ as an environmental background of the seventeenth century but balances the effects of other factors such as environmental degradation in the post-Imjin War period and human activities like government responses to provide new and more holistic views for future research on the environmental history of seventeenth-century Chosŏn Korea.

Against such a background of the wars and extreme weather, poor and displaced people became major victims of successive crises, such as famines and epidemics.⁵³ Within the Confucian worldview, the Chosŏn government was required to hold sacrificial rituals to the supernatural spirits of epidemics to comfort the dead from

역사학보 149 (1996.3): 203–36.

⁵¹ Kim Tŏk-jin 김덕진, *Taegigŭn, Chosŏn ūl twidŏpta: uri ka mollattŏn 17 segi ūi tto tarŭn yŏksa* 대기근, 조선을 뒤덮다: 우리가 몰랐던 17 세기의 또 다른 역사 (Seoul: P'urŭn yŏksa 푸른역사, 2008); Yi Sangmu 이상무, ‘Chosŏn sidae kigŭn kwa chŏnyŏmbyŏng e ttarŭn hakkyo wa kwagŏje ūi unyŏng: 17segi huban Sobinghagi rŭl chungsim ūro 조선시대 기근과 전염병에 따른 학교와 과거제의 운영: 17세기 후반 소빙하기를 중심으로’, *Kyoyuk sahak yŏn'gu* 교육사학연구 30, no. 2 (2020): 59–88; Yi Jooho 이준호 and Yi Sangim 이상임, ‘Chosŏn sidae kisang ibyŏn e ttarŭn chaehae palseng kwa kong'ok sasang ūl kyujŏngjŏk ūlmi koch'al -Sobinggi 'Kyŏngsin tae kigŭn' ūl saryero 조선시대 기상이변에 따른 재해 발생과 공옥 사상의 교정적 의미 고찰- 소빙기"경신대기근"을 사례로’, 교정담론 *Kyuchŏng damron* 11, no. 3 (2017): 269–96. Chŏn Che-hun 전제훈, ‘Chosŏn Sobinggi ūiyak sasang yŏn'gu -Kangnŭng yakkukkye sŏnggyŏk ūi chisok kwa pyŏnhwa 조선 소빙기 의약사상연구 -강릉 약국계 성격의 지속과 변화’, *Wŏnbulgyo sasang kwa chonggyo munhwa* 원불교사상과 종교문화 73 (2017): 34–377.

⁵² Kye Seungbum 계승범, ‘Chosŏn hugi Sobinggi wigisŏl chaego 조선 후기 소빙기 위기설 재고’ *Che64hoe chŏn'gu yŏksa taehoe yŏksa sogŭi wigiwa taeŭng* 제 64 회 전국역사대회 ‘역사 속의 위기와 대응’, Seoul, 2021, 138–41.

⁵³ John D. Post, ‘Famine, Mortality, and Epidemic Disease in the Process of Modernization’, *The Economic History Review* 29, no. 1 (1976): 14–37. Farris, *Japan's Medieval Population: Famine, Fertility, and Warfare in a Transformative Age*; 菊池勇夫 Kikuchi Isao, ‘飢饉に伴う疫病: 仙台藩の場合’ *Kikin ni tomonau ekibyŏ: Sendaihan no baai, 民族と宗教 Minzoku to shūkyō* 54 (2020): 7–32. Karlsson, ‘Famine Relief, Social Order, and State Performance in Late Chosŏn Korea’; Karlsson, ‘Famine, Finance and Political Power’.

infectious diseases and pray for a pause of calamities.⁵⁴ The government also continued its relief policy towards the poor and displaced in order to address the threats they posed and to achieve social order. The study of relief policies, such as land-tax exemptions targeted at these people, has been the main focus of the existing scholarship on crisis management in seventeenth-century Korea.⁵⁵ Infected people, albeit being a vulnerable group, have not drawn too much attention in Korean scholarship. They are usually overshadowed by the starving victims during famines in the pre-modern period. In contrast, infected people are the focus of this study, regardless of whether they were soldiers, displaced people, prisoners, commoners, kings, or envoys.

History of epidemics in Korea

The study of the history of medicine on the Korean peninsula started early in the last century. The Japanese scholar, Miki Sakae, published *Chōsen ihakushi oyobi shippeishi* 朝鮮醫學史及疾病史 (*History of Medicine and Disease in Korea*, 1962), in which some he posited that Japanese colonization had modernized Korean medicine and hygiene.⁵⁶ As a response to Miki's book, Korean scholar Kim Tujong shortly afterwards published his book *Han'guk ūihaksa* 韓國醫學史 (*History of Korean Medicine*, 1966), utilizing Miki's periodization scheme and table of contents, but with an emphasis on the indigeneity and liberation of Korean medicinal developments from Japanese colonization.⁵⁷ Both of them made fundamental contributions to the emergent

⁵⁴ Kim Yuri 김유리, 'Chosŏn sidae chaenan sanghwang kwa saja insik e kwanhan yŏn'gu -yŏje ūi silch'ŏn ūl chungsim ūro 조선시대 재난상황과 사자(死者)인식에 관한 연구 -여제의 실천을 중심으로' (M.A. diss, Seoul National University, 2016).

⁵⁵ Anders Karlsson, 'Famine Relief, Social Order, and State Performance in Late Chosŏn Korea', *The Journal of Korean Studies* 12, no. 1 (2007): 113–41; Anders Karlsson, 'Famine, Finance and Political Power: Crop Failure and Land-Tax Exemptions in Late Eighteenth-Century Chosŏn Korea', *Journal of the Economic and Social History of the Orient* 48, no. 4 (1 January 2005): 552–92; Anders Karlsson, 'Royal Compassion and Disaster Relief in Chosŏn Korea', *Seoul Journal of Korean Studies* 20, no. 1 (2007): 71–98; Kim Misŏng 김미성, 'Chosŏn Hyŏnjong~Sukchong yŏn'gan kihu chaenan ūi yŏp'a wa yumin taech'aek ūi pyŏnhwa 조선 현종~숙종 연간 기후 재난의 여파와 유민(流民) 대책의 변화', *Yŏksa wa hyŏnsil* 역사와 현실 118 (2020): 99–135; Pyŏn Chusŭng 변주승, 'Chosŏn hugi yumin ūi pukpang pyŏn'gy'ŏng yuip kwa kŭ silt'ae 조선 후기 유민의 북방 변경 유입과 그 실태', *Kukhak yŏn'gu* 국학연구, 2008, 195–223; Pyŏn Chusŭng 변주승, 'Chosŏn hugi yumin yŏn'gu 조선 후기 유민연구' (Seoul, Korean University, 1997); Won Jaeyoung 원재영, 'Chosŏn hugi hwangjŏng yŏn'gu 朝鮮後期荒政연구' (PhD Diss. Yonsei University, 2014.2).

⁵⁶ Miki Sakae 三木栄, *Chōsen ihakushi oyobi shippeishi* 朝鮮醫學史及疾病史 (Tōkyō: Ishiyaku shuppan, 1962).

⁵⁷ Kim Tujong 김두중, *Han'guk ūihaksa* 한국의학사 (Seoul: T'amgudang 탐구당, 1966). See also Kerry Seiji Shannon, 'Cleanliness and Civilization: Public Health and the Making of Modern Japan and Korea, 1868-1910', PhD

field by collecting sources, drafting Korean timelines of diseases, and providing broad pictures of the history of Korean diseases and medical development throughout the entire historical period, with occasional comparative studies with other East Asian states. Since then, a considerable amount of literature has investigated the history of medicine in Korea, which can be divided into two main lines of enquiry: discussions that are conducted within the field of Korean medicine (Hanüi-hak 韓醫學), and the social history of medicine in which most scholars utilize interdisciplinary approaches to elucidate the history of diseases in Korea.

Within these two approaches, the existing scholarship mainly covers five themes for Chosŏn: diseases, medical institutes, medical thought within texts, medical education system, and *materia medica*. Don Baker, a pioneer in English-language academia on the history of Korean medicine, has also covered these aspects in his introductory chapter on oriental medicine in Korea from the Three Kingdoms period (57 BC to 668 AD) to modern times.⁵⁸ Due to the limitations of existing records, which mainly recorded data relating to the upper echelons of society, the health of the Chosŏn kings and other elites has been well discussed but the health of ordinary people is largely unknown, with the exception of studies that have used military rosters to investigate nutrition and diet.⁵⁹ Likewise, previous studies on pre-modern Korean medical institutes have focused on the earlier establishment of the central medical system, while a few studies have been able to draw on its later operation or supplementary medical care in local regions during the late Chosŏn dynasty.⁶⁰

Dissertation, Berkeley: University of California, 2019, 41–42.

⁵⁸ Don Baker, 'Oriental Medicine in Korea', in *Medicine Across Cultures: History and Practice of Medicine in Non-Western Cultures*, ed. Helaine Selin, Science Across Cultures: The History of Non-Western Science (Dordrecht: Springer Netherlands, 2003), 133–53.

⁵⁹ Shin Dongwon 신동원, *Chosŏn saram üi saengno byŏngsa* 조선사람의 생로병사(Seoul: Han'györye sinmunsa 한겨레신문사, 1999); Shin Dongwon 신동원, *Chosŏn üiyak saenghwalsa hwanja rül chungsim üro pon üiryö 2000 nyŏn* 조선의약생활사 환자를 중심으로 본 의료 2000년 (Seoul: Tullyök 들녘, 2014); James Lewis, Jun Seongho, and Daniel Schwekendiek, 'Toward an Anthropometric History of Chosŏn Dynasty Korea, Sixteenth to Eighteenth Century', *The Journal of the Historical Society* 13 (1 September 2013).

⁶⁰ Yi Kyöngnok 이경록, *Chosŏn chŏn'gi üi üiryö chedowa üisul* 조선전기의 의료제도와 의술(Seoul: Yöksa konggan 역사공간, 2020); Park Hunpyeong 박훈평, 'Chosŏn sidae Hwarinsö yŏn'gu - yŏnhyök mit sangbi ch'öbang üil chungsim üro 조선 시대 활인서 연구 - 연혁 및 상비처방을 중심으로', *Han'guk üisa hakhoe* 한국의학학회 33, no. 1 (2020): 11–20; Lee Kyukeun 이규근, 'Chosŏn hugi Naeülwŏn ülgwan yŏn'gu - <Naeülsönsaeng'an> üil punsök üil chungsim üro 조선후기 내의원 의관 연구 - <내의선생안>의 분석을 중심으로', *Chosŏn sidae sahakpo* 조선시대사학보 3 (1997.11): 5–50; Chŏn 전, 'Chosŏn Sobinggi üiyak sasang yŏn'gu 조선 소빙기 의약사상연구',

Furthermore, the nature of the extant sources has seen an emphasis on medical thought, at the expense of a consideration of practical effects.⁶¹ Aside from the medical texts, there are also a certain number of extant texts on *materia medica*, thereby generating some studies on the analysis of texts, representative Chosŏn herbs like ginseng, and the intellectual circulation of local botanicals (*hyangyak*).⁶² Korean-language studies on the medical education system have shown an interest in gender, but that is mainly because female physicians were deployed thereby playing a significant role in the treatment of female members of the royal family.⁶³

Since much modern Korean historical writing has been devoted to myriad aspects of the histories of diseases and medicine, within this broad synthesis of the subject, scholarship has rightly concentrated on infectious diseases. The works by Miki Sakae and Kim Tujong include long-term observations of infectious diseases and anti-epidemic medical treatment, as does Chŏn Ch'onghoe's book on the history of epidemics, which came out around the same time in 1965.⁶⁴ English-language scholarship on the history of epidemics in Korea first appeared in 1993, based largely on these secondary works, although the latest research has updated some conclusions mentioned at that time.⁶⁵ The recently compiled volume *Han'guk chŏnyŏm pyŏngsa* (*Korean History of Epidemics*) by the Korean Society of Infectious Diseases, collects

2017; Suh Soyoung, *Naming the Local: Medicine, Language, and Identity in Korea since the Fifteenth Century* (Cambridge(Massachusetts) and London: Harvard University Press, 2017).

⁶¹ Cho Woonjoon 조원준 et al., '17segi ch'ŏ Chosŏn esŏ yuhaenghan "tangdogyŏk" e taehan yŏn'gu -Hŏ Chun ūi Piyŏk sinbang ūl chungsim ūro 17 세기 초 조선에서 유행한 '당독역'에 대한 연구 -허준의 비역신방을 중심으로', *Tongŭi saengni byŏngni hak'oeji* 동의생리병리학회지 18, no. 2 (2004): 311–43; Kim Ho 김호, '1612nyŏn onyŏk palsaenggwa Hŏ Chun ūi Sinch'an pyŏgonbang 1612 년 온역(溫疫) 발생과 허준(許浚)의 『신찬벽온방(新纂僻溫方)』', *Chosŏn sidaesa hakpo* 조선시대사학보 75 (2015.9): 307–33; Oh Chaekun 오재근, 'Chosŏn ūigwan Hŏ Chun ūi tuch'ang ūihak kwa p'yŏnjŭng 조선 의관 허준의 두창 의학과 "변증"', *Ūisahak* 의사학 30, no. 1 (2021): 35–68.

⁶² Cho Sŏng-san 조성산, 'Chosŏn hugi Songho hakp'a ūi kohak yŏn'gu rŭl t'onghan ponch'ohak insik 조선 후기 성호학과(星湖學派)의 고학(古學) 연구를 통한 본초학(本草學) 인식', *Hanŭihak* 한의학 42, no. 2 (2015): 457–96; Kim Kyoungmi 김경미, '17-18segi Ilbon ūi Chosŏn yakchae kuch'ŏng 17-18 세기 일본의 조선 약재 구청', *Taegu sahak* 대구사학 119 (2015): 217–55; Suh, *Naming the Local: Medicine, Language, and Identity in Korea since the Fifteenth Century*.

⁶³ Kwak Hyomun 광효문, 'Chosŏnjo ūinyŏ chedu ūi sahoe pokchijŏk ūimi e kwanhan yŏn'gu 조선조 의녀제도의 사회복지적 의미에 관한 연구', *Han'guk haengjŏng sahakji* 한국행정사학지 19 (n.d.); Yi Misuk 이미숙, 'Chosŏn sidae ūinyŏ ūi yŏkhal 조선시대 의녀의 역할', *Han'guk sasang munhwa hakhoe* 한국사상문화학회 61 (2012): 169–203.

⁶⁴ Chŏn Ch'ong-hoe 전중회, *Han'guk kŭpsŏng chŏnyŏmbyŏng kaegwan* 한국급성전염병개관 (Ch'oesin ūihaksa 최신의학사, 1965).

⁶⁵ Lois N. Magner, 'Diseases of the Premodern Period in Korea', in *The Cambridge World History of Human Disease*, ed. Kenneth F. Kiple (Cambridge: Cambridge University Press, 1993), 392–400.

the most current research to illustrate a long history of infectious diseases on the peninsula, dating back to Kojosŏn 古朝鮮 (? -108BC).⁶⁶

The pioneering studies above paved the way for the following discussions on pre-modern epidemics and their management. Kwŏn Pokkyu and Yi Kyŏngnok examine the history of epidemics, especially the medical system established in the early Chosŏn dynasty.⁶⁷ More studies focus on the late Chosŏn dynasty, for example, Richard Kim has mainly utilized the *Chosŏn wangjo sillok* 朝鮮王朝實錄 (Veritable Records of the Chosŏn Dynasty) to present the epidemic patterns and view epidemic management through a discussion of the creation of bureaucratic offices, the compilation of medical texts, and the reform of rituals from 1608 to 1800, asserting that the Chosŏn government was willing and capable of rehabilitating itself from epidemic outbreaks.⁶⁸ Shin Dongwon has paid attention to the history of epidemics since the late eighteenth century when the traditional measures against epidemics still existed but a reformation and restoration also took place.⁶⁹ Kerri Shannon argues that anti-epidemic measures were gradually reformed into a modern medical system throughout the process of modernization as if the revolution in public health burst along with the colonial period.⁷⁰ Changes in epidemic management appeared not only in the process of modernization: this dissertation will show that the Imjin War also served as a demarcation point in changes in epidemic management, including the roles of both the central government and some private forces throughout the late sixteenth to the early eighteenth centuries.

⁶⁶ Taehan kamyŏm hakhoe 대한감염학회, *Han 'guk chŏnyŏmbyŏngsa* 한국전염병사(Seoul: Taehan kamyŏm hakhoe 대한감염학회, 2009).

⁶⁷ Kwŏn Pokkyu 권복규, 'Chosŏn chŏn'gi yŏkbyŏng e taehan minganŭl taeŭng 조선 전기 역병에 대한 민간의 대응', *Ŭlsahak* 의사학 8, no. 1 (1999.6): 21–32; Kwŏn Pokkyu 권복규, 'Chosŏn chŏn'gi ŭi yŏkbyŏng yuhaeng e kwanhayŏ 조선 전기(朝鮮前期)의 역병 유행에 관하여', PhD Dissertation, Seoul National University, 1998); Yi 이, *Chosŏn chŏn'gi ŭi ūryŏ chedo wa ūsul* 조선전기의 의료제도와 의술, 2020.

⁶⁸ Richard Kim, 'Epidemic Management in Chosŏn, 1608-1800' (MA thesis, Oxford University, 2020).

⁶⁹ Dongwon Shin, 'Measures against Epidemics during Late 18th Century Korea: Reformation or Restoration?', *Extrême-Orient Extrême-Occident*, no. 37 (9 January 2014): 91–110.

⁷⁰ Shin Dongwon 신동원, *Han 'guk kŭndae pogŏn ūryŏsa* 한국근대보건의료사 (Seoul: Han'ul 한울, 1997); Kerry Seiji Shannon, 'Cleanliness and Civilization: Public Health and the Making of Modern Japan and Korea, 1868-1910', PhD Dissertation, Berkeley: University of California, 2019.

In contrast to survey-type studies, other studies on the history of epidemics in Korea tend to examine epidemics during a single king's reign, in the establishment of Chosŏn medical institutes, through a particular medical text on epidemic treatment, or by way of a certain type of document.⁷¹ These studies, nonetheless, are able to view epidemics as a historical actor in the broader background of Korean culture. For example, a smallpox panic in Chosŏn affected the domestic politics and diplomatic rituals as Chapter 6 in this dissertation will show.⁷² Rinderpest outbreaks affected farming policies and the redistribution of cattle,⁷³ and other outbreaks paused the operation of education.⁷⁴ East Asian cultures were intertwined with Confucianism, Buddhism, Daoism, and some domestic beliefs like Shamanism, which also determined religious measures against epidemics.⁷⁵ Since perceptions of epidemics remained unaltered for a long time in the late Chosŏn dynasty, the Chosŏn people continued to perform religious rituals to placate epidemic spirits.⁷⁶ People prayed in front of an image of the Buddha or believed in shamans or *mudang*, both of whom acted as mediators to communicate between the world of the supernatural and the world of humans so that

⁷¹ Kim Changsu 김창수, 'Chosŏn hugi Chosŏn-Ch'ŏng kwan'gye wa kukwang ūi kŏn'gang munje -Sukjong ch'oban kyoyŏngrye rŭl tullŏssan kaldŭng ūl chungsim ūro 조선 후기 조선-청 관계와 국왕의 건강 문제 -숙종 초반 교영례(郊迎禮)를 둘러싼 갈등을 중심으로-', *Ŭisahak* 의사학 29, no. 3 (2020.12): 999–1028; Park 박, 'Chosŏn sidae Hwarinsŏ yŏn'gu 조선 시대 활인서 연구', 2020; Lee 이, 'Chosŏn hugi Naeŭlwŏn ūlgwan yŏn'gu 조선 후기 내의원 의관 연구', 1997; Yi Kyukeun 이규근, 'Chosŏn hugi Chilbyŏngsa yŏn'gu -Chosŏn wangjo sillok ūi chŏnyŏmbyŏng palsaeng kirok ūl chungsim ūro 조선 후기 질병사 연구 -조선왕조실록의 전염병 발생 기록을 중심으로', *Han'guksa yŏn'gu hwibo* 한국사연구회보 116 (2001): 1–42.

⁷² Koo Bumjin 구범진, 'Mama 마마', in *P'yŏngja horan, Hong Taiji ūi chŏnjaeng* 병자호란, 홍타이지의 전쟁 (Seoul: Kkach'i 까치, 2019), 259–84; Kim, 'Chosŏn hugi Chosŏn-Ch'ŏng kwan'gye wa kukwang ūi kŏn'gang munje', 2020.

⁷³ Kim Dongjin 김동진, 'P'yŏngja horan chŏnhu uyŏk palsaeng kwa nong'u chaebunbae chŏngch'aek 병자호란 전후 우역 발생과 농우 재분배 정책', *Yŏksawa tamnon* 역사와 담론, no. 65 (2013): 263–309.

⁷⁴ Yi, 'Chosŏn sidae kigŭngwa chŏnyŏmbyŏng e ttarŭn hakkyowa kwagŏje ūi unyŏng', 2020.

⁷⁵ For relations between Confucianism and epidemics, see Donald Leslie Baker, 'Sirhak Medicine: Measles, Smallpox, and Chŏng Tasan', *Korean Studies* 14, no. 1 (1990): 135–66. For relations between Buddhism and epidemics, see Joshua Capitanio, 'Epidemics and Plague in Premodern Chinese Buddhism', *Asian Medicine* 16, no. 1 (13 August 2021): 177–92; Special issues shŭkyō to ekibyō 宗教と疫病 in *shŭkyō kenkyū* 宗教研究 92(2), 2021.9; Katja Triplett, *Buddhism and Medicine in Japan: A Topical Survey 500-1600 Ce of a Complex Relationship* (Boston: de Gruyter, 2020); Katja Triplett, 'Magical Medicine? – Japanese Buddhist Medical Knowledge and Ritual Instruction for Healing the Physical Body', *Japanese religions* 37 (2012): 63–92. For relations between Daoism and epidemics, see B. S. Peng and M. Lu, 'Understanding the Prevention and Cure of Plagues in Daoist Medicine', *Traditional Medicine Research* 6(2021): 42. Kashiwaki Kyōsuke 柏木亨介. 'Ekibyō shūzoku kara miru Nihonjin no byōinkan to sabetsu no ronri: Tatari to gyō'疫病習俗からみる日本人の病因観と差別の論理: 祟りと業, *Shintō shūkyō* 神道宗教 258 (2020) : 61–89.

⁷⁶ Kang Sang-sun 강상순, 'Chosŏn sidae saramdŭl ūi yŏkpyŏng insik 조선시대 사람들의 역병 인식', *Kidogyo sasang* 기독교 사상 736 (2020): 60–69; Kim, 'Chosŏn sidae chaenansanghwanggwa saja insike kwanhan yŏn'gu', 2016.

people could be freed from epidemics.⁷⁷

Existing studies also cover various types of infectious diseases including pestilence, measles,⁷⁸ smallpox,⁷⁹ cholera,⁸⁰ and rinderpest.⁸¹ The variety of diseases appears fewer compared to studies of the global history of epidemics, partially because there are often no concrete clues allowing researchers to distinguish precisely to which diseases the pre-modern Korean records are referring. Most studies therefore group all the different types of infectious diseases as epidemics, while only a few of these studies – mainly those from the late Chosŏn Dynasty around the eighteenth century – are able to specify the type of the infectious disease that allows identification by modern epidemiology. Regardless, there is further potential for exploration in this field, such as the classification of contagions by using paleoclimatic and archaeological results, as well as further studies on the social history of Korean epidemics based on interdisciplinary approaches. In this dissertation, ‘epidemic’ is not a precise word, but I shall emphasize those diseases of the past which, regardless of what modern epidemiology defines them, caused communicable infections and tremendous social disruption as a result of their biological transmission. These fall within the scope of this study. I am also concerned with the ways in which societies defined, conceived, and responded to various diseases such as the discussion on smallpox in chapter 6.

Another area in which the present study breaks new ground is in its use of sources. Most existing research on the history of epidemics in Korea uses official documents, mainly the *sillok*. A few more recent studies have begun to exploit diaries.

⁷⁷ Lee Sun-a 이선아, ‘Han Mong minsok esŏ ūi tuch’ang yŏksin e taehan insik pigyo 한몽 민속에서의 두창(痘瘡) 역신(疫神)에 대한 인식 비교’, *Han’guk minsokhak* 한국민속학 61 (2015): 87–112; Yi 이, ‘Chosŏn sidae sadaebu ūi tuch’angsin e taehan ihae wa ūirye 조선시대 사대부의 두창신에 대한 이해와 의례’, *Chongkyo munhwa pip’yŏng* 종교문화비평 38 (2020): 221–55.

⁷⁸ Baker, ‘*Sirhak* Medicine’.

⁷⁹ Shin Dongwon 신동원, *Hohwan mama ch’ŏnyŏndu : pyŏng ūi ilsang kaenyŏmsa* 호환 마마 천연두: 병의 일상 개념사 (Seoul: Tolbegae 돌베개, 2013); Park Yunjae 박윤재, ‘Chosŏn ch’ongdokpu ūi udu chŏngch’aek kwa tuch’ang ūi chisok 조선총독부의 우두정책과 두창의 지속’, *Ŭisahak* 의사학 12, no. 3 (2012): 377–401.

⁸⁰ Shin Dongwon 신동원, *Hoyŏlja, Chosŏn ūl sŭpyŏk hada momgwa ūihak ūl han’guksa* 호열자, 조선을 습격하다: 몸과 의학의 한국사 (Seoul: Yŏksa pip’yŏngsa 역사비평사, 2004).

⁸¹ Kim Dongjin 김동진, Yu Hansang 유한상, and Lee Hang 이항, ‘17segi huban uyŏk ūi chugijŏk yuhaeng i kigŭn chŏnyŏmbyŏng hohwan e mich’in yŏnghyang 17세기 후반 우역의 주기적 유행이 기근·전염병·호환에 미친 영향’, *Ŭisahak* 의사학 23, no. 1 (2014): 1–56; Kim, ‘By’ŏngjahoran chŏnhu uyŏk palsaenggwa nong’u chaebunbae chŏngch’aek’, 2013.

For example, Admiral Yi Sunsin (李舜臣 1545-1598)'s diaries depict epidemic deaths in the Chosŏn navy the Imjin War; a *yangban* diary suggests the elite responses to epidemics in the early nineteenth century; diaries-based climate data recovery present the pattern of various crises including epidemic outbreaks.⁸² However, these studies usually focus on a single diary to analyze in detail daily measures against infectious diseases and do not provide a macro approach to the big picture. Moreover, a more comprehensive analysis through a combined examination of diaries and official documents is still lacking. Thus this dissertation compares official documents together with dairies in order to conduct qualitative and quantitative analysis (for more detail, see Chapter 1).

The medical system of the Chosŏn dynasty

The Chosŏn dynasty inherited and reformed the Koryŏ dynasty's medical system. Along with the transition from Koryŏ, the Chosŏn dynasty enshrined Confucianism in the place of Buddhism, thereby names of these institutes such as East and West Infirmaries (Tongsŏ Taebiwŏn 東西大悲院), indicating Buddhist associations, were all changed but their function remained.⁸³

After some adjustments of the medical system in the early Chosŏn dynasty, four hierarchical medical institutes were operating during the late Chosŏn dynasty: the Office of the Royal Physicians (Naeüiwŏn 內醫院), the Royal Medical Institute (Chŏnŭigam 典醫監), Office of Benefiting the People (Hyeminsŏ 惠民署), and Saving

⁸² Na Seunghak 나승학, 'Imjin waeran ki Chosŏn sugun chinyŏng chŏnyŏmbyŏng ūi palsaeng silt'ae wa yŏnghyang 임진왜란기 조선 수군 진영 전염병의 발생 실태와 영향', *Kunsayŏn 'gu* 군사연구 144 (2017): 57-81; Pae Taeho 배대호, '19 Segi chŏnho sadaebuga ūi kamyŏmbyŏng yangsang kwa taech'ŏ -Chŏng Wŏnyongŭi - *Kyŏngsan illok ūl chungsim ūro* 19 세기 전후 사대부가의 감염병 양상과 대처 -정원용의 『경산일록』을 중심으로', *Chosŏn sidae sahakpo* 조선시대사학보 95 (2020.12): 279-311; Oh Yongwon 오용원, 'Ilgyryu charyo rŭl t'onghaebon Chosŏn sidae chayŏn chaehae wa kogihu ūi pokwŏn pang'an 일기류 자료를 통해본 조선시대 자연재해와 고기후의 복원 방안', *T'oegyehak nonjip* 퇴계학논집 21 (2017): 341-70; Kim Jeongun 김정운, '1799 nyŏn chŏnyŏmbyŏng ūi taeyuhaeng kwa kukka ūi wigi taewŏng pangsik 1799 년 전염병[胡疫]의 대유행과 국가의 위기대응 방식', *Taegu sahak* 대구사학 145 (2021): 1-29.

⁸³ Yi 이, *Chosŏn chŏn'gi ūi ūiryŏ chedo wa ūisul* 조선전기의 의료제도와 의술, 2020. Palais, James B. *Confucian Statecraft and Korean Institutions: Yu Hyŏngwŏn and the Late Chosŏn Dynasty*. (Seattle and London: University of Washington Press, 1996), 623

the Destitute Agency (Hwarinsŏ 活人署). The Office of the Royal Physicians (Naeüiwŏn 內醫院) was charged with medical treatment to royal families, high-ranking officials and their families, and occasionally sick imperial envoys, for example, a Qing deputy envoy who contracted smallpox got treatment during his stay in Chosŏn (Chapter 6). It also organized physicians to compile and publish medical texts in times of calamitous outbreaks (Chapter 3). The second central clinic, the Royal Medical Institute, was the largest institution where medical personnel were trained, medical examinations were held, and herbs were managed. It also cooperated with its subordinate institutes in distributing pharmaceuticals. The Office of Benefiting the People functioned as a pharmacy where medicines were made, a hospital, and a medical school where monthly doctors (*wŏllyŏng ŭi* 月令醫) were dispatched to different departments to offer physical examinations to the people in the capital. These doctors also treated sick convicts especially during epidemics in prisons (Chapter 4). Another clinical office was known as Hwarinsŏ (Saving the Destitute Agency), and in Hansŏng there were two located separately outside the capital near the east and west gates. It was regulated to relieve and treat the poor, such as the starving, the abandoned, and the sick.

Depending on historical interpretation, the establishment of these central medical institutes represented either a medium of social welfare (*sahoe pokchi* 社會福祉) or an apparatus of preeminent power to keep the vulnerable under the bureaucratic rule.⁸⁴ By observing the operations of the early Chosŏn medical institutes, Yi Kyŏngnok notes that benevolence, relief, or *minbon* 民本 thought (for the people) within Confucian statecraft did not mean that the Chosŏn government gave priority to the people. Rather, hierarchy appeared in the organization of these medical institutes for each social class.⁸⁵ Taking Hwarinsŏ as a representative example, Don Baker also argues that keeping infected people outside of the capital walls was a way to block diseases in

⁸⁴ Kim Tujung 김두중, *Han 'guk üihaksa* 한국의학사 (Seoul: Tamgudang 탐구당, 1966), 423. See Shannon, 'Cleanliness and Civilization', 47.

⁸⁵ Yi 이, *Chosŏn chŏn'gi üi üiryŏ chedowa üisul* 조선전기의 의료제도와 의술, 2020.

order to keep the royal palace safe from infection.⁸⁶

The Imjin War and frequent epidemic outbreaks in the seventeenth century brought some changes in the operation of medical institutes. Hwarinsŏ had been almost abandoned due to the Imjin War and remained so until a nationwide epidemic outbreak struck the peninsula in 1612. King Kwanghae-gun then issued an edict and it resumed its usual treatment of people (Chapter 3). Because its intake were the victims of outbreaks, Hwarinsŏ received the infected and displayed the function of quarantine stations (Chapter 5). However, confronted with relentless great famines in the late seventeenth century, most of these medical institutes failed to function (Chapter 5). Hwarinsŏ came under the administration of the Office of Benefiting the People (Hyeminsŏ) in 1709 and was completely dissolved by 1743. Although operations of these central medical institutes are not the focus here, writing the social history of epidemics in the late Chosŏn dynasty cannot avoid talking about them and they appear throughout this dissertation.

Conclusions

To conclude, this study concentrates on the history of epidemics in Chosŏn Korea. The narrative starts before the Imjin War to clarify the impacts of the warfare on the Korean environment and its relations with epidemic outbreaks. The study goes on to take a long-term view of developments until the early eighteenth century and discusses the four key factors influential to outbreaks in this period: the environment, social changes, authority responses (loosely defined as including government, particularly military authorities), and medicine. It also seeks to present the patterns of epidemics and possible causes of outbreaks, transmissions, and their impacts on people, society, and diplomacy. It further notes that, aside from the typical governmental measures of relief, allocation of medicine, and the dispatch of doctors, there were also various other supplementary administrative measures such as quarantine measures, the juridical system that offered temporary release to infected prisoners, and the adjustment of

⁸⁶ Baker, 'Oriental Medicine in Korea', 139.

diplomatic rituals to prevent epidemics, albeit provisional sometimes. Based on these discussions, this study aims to shed new light on relations between infectious diseases and other factors, particularly the environment and government strategies. Furthermore, through the lens of epidemics, this study provides a new narrative of pre-modern Korean history from the perspectives of environmental history and the social history of medicine.

The substantive chapters that follow scan over the history of epidemics in Chosŏn from 1576 to 1720 and address topical concerns to offer a view in the round. The chapters address questions of environment, the impact of infectious disease on the course of the Imjin War, the geographic spread of disease and the displacement of people after the war, the management of epidemics in prisons, quarantine measures, and finally turns to smallpox in Korean-Chinese relations. These matters encompassed the chief concerns of the day and give us a panoramic view of disease in seventeenth-century Korea in relation to environmental, military, administrative, and epidemiological histories.

Chapter 1 Epidemics in Chosŏn, 1576-1720: comparison and analysis of sources

This dissertation investigates the history of epidemics in the late Chosŏn period as recorded in official records and diaries. In this chapter, I will consider the reliability of the materials that I have used. In doing so, I combine both quantitative and qualitative approaches to examine and analyse the four main sources: *Chosŏn wangjo sillok* 朝鮮王朝實錄 (Veritable Records of the Chosŏn Dynasty, simplified as *sillok* below),¹ *Pibyŏnsa tŭngnok* 備邊司謄錄 (Records of the Border Defense Council), *Sŭngjŏngwŏn ilgi* 承政院日記 (Journal of the Royal Secretariat), and a less well-known source - *Yŏje tŭngnok* 厲祭謄錄 (Transcribed records on rituals for abandoned spirits). I argue that the *sillok* is a valuable and reliable source, but that analysis benefits from comparing the *sillok* with other supplementary official documents. Meanwhile, by converting textual information into graphs and maps, I will also present an overview of temporal and spatial epidemic patterns on the peninsula from 1567 to 1720. The chosen period is from the start of the reign of King Sŏnjo (宣祖 r. 1567-1608) until the end of King Sukjong (肅宗 r. 1661-1720)'s reign in order to examine the long-lasting trend of the epidemic patterns on the Korean peninsula. Starting to the narrative from before the Imjin War (1592-1598) helps to present the impact of the war on epidemic outbreaks, and the end date of 1720 allows for a consideration of relatively long-term impacts of the Great Famine of Ŭlbyŏng (1695-1699).

Comparison of compilation procedures of different official documents

The *sillok* records are one of the most significant extant sources for historical

¹ *Chosŏn Wangjo sillok* [Veritable Records of the Kings of the Chosŏn Dynasty]. 48 vols. Seoul: Kuksa P'yŏnch'an Wiwŏnhoe. *Sŭngjŏngwŏn ilgi* 承政院日記. <http://sjw.history.go.kr>. *Pibyŏnsa tŭngnok* 備邊司謄錄. <http://db.history.go.kr/>. *Yŏje tŭngnok* 厲祭謄錄. 1638. Kyujanggak Institute of Korean Studies, Kyu12880. All entries from Chosŏn court records are cited in reign year-month-day format.

writing, including the present study. The *sillok* offers chronological records for each king, covering the reigns of 25 rulers in total. It spans the long Chosŏn dynasty, from King Taejo (r. 1392-1398) to King Ch'ŏljong (r. 1843-1863).² The Veritable Records were not compiled by a specific historian but a *sillok* compilation committee. Immediately after one king died, a *sillok ch'ŏng* (實錄廳, *Sillok* Compilation Committee) was established to write the annals of his reign, with a Director-General in charge. Meanwhile, various officials were named to serve in the Toch'ŏng (都廳, Office of General Compilation) as well as the offices under this core unit. Thus, the whole compilation process passed through three units, starting from the initial draft by lower division offices, which was reviewed by higher officials, until the director-general and other top-ranking persons made the final decisions on what should be included.³ The process meant that the compilation office could compare sources and then record commonly depicted incidents. As will be shown in the following, the *sillok* tended to select records related to epidemics from among its primary sources, such as *Pibyŏnsa tŭngnok*, *Sŭngjŏngwŏn ilgi*, and *Yŏje tŭngnok* and include commonly mentioned events, but the compilers discarded some records that only appeared in *Sŭngjŏngwŏn ilgi*. In theory, the current king had no authority to review these drafts, although he could appoint the director. The independence of compilers meant that those selected as directors and who had the final say in the contents of the *sillok* were able to influence the compilation. For example, they may have wished to portray the previous reign in a more negative light than the present reign, and the inclusion of more reports about disasters was one way to do this. In other words, we should be wary of taking the *sillok* as an objective record, and it is worthwhile reading it in comparison with other records from the time. Nevertheless, it is worth noting that a few previous studies have

² After *Ch'ŏljong sillok*, the volumes of two more kings were compiled: *Kojong sillok* and *Sunjong sillok* and even carried an appendix 附錄. These two volumes are not included in what we commonly know as the *sillok* in that they were not compiled during the Chosŏn period but were written by the Office of the Governor-General of Korea between 1927 and 1932 when Korea had lost its sovereignty to Imperial Japan. The reliability of these volumes is still a matter of debate.

³ National Institute of Korean History. Introduction on Veritable Records of Joseon Dynasty. <http://Sillok.history.go.kr/intro/english.do>

compared the *sillok* records with climate data from China and Japan and have argued that the *sillok* records on climate and natural disasters are reliable.⁴

The original sources and compilation procedure of *sillok* were strict. Primary sources for the *sillok* varied from bureaucratic to personal records. Reports from different administrations were chronologically arranged and maintained at Ch'unch'ugwan (春秋館 Bureau of State Records). Other officials records also became primary sources in the later compilations of *sillok*, such as *Sŭngjŏngwŏn ilgi*, *Pibyŏnsa tŭngnok*, and *Ilsŏngnok* (日省錄 Diary of Self-examination). Meanwhile, private drafts include daily records kept by former dedicated diarist-historians, current officials, or their surviving family members, which were also utilized for the compilation of the *sillok*. Such a compilation procedure, therefore, made the *sillok* a tertiary source: primary sources were the reports from the field; secondary sources were those same reports that were copied and prepared at the Royal Secretariat (承政院 *Sŭngjŏnwŏn*) to be passed to the court or to the ministries. However, the *sillok* is the only existing source for court discussion so it is also a primary source in that regard.

Because they formed the basis for the *sillok*, the *Pibyŏnsa tŭngnok* and the *Sŭngjŏngwŏn ilgi* do not usually receive criticism. *Pibyŏnsa*, the Border Defense Council, was Chosŏn's highest committee for important state affairs, and its administrative activities were recorded in the form of a diary in *Pibyŏnsa tŭngnok*. Generally, *Pibyŏnsa tŭngnok* was published annually and each publication carefully recorded the era of the king, the date, even the participants in each month's discussion, and council contents. It provides precious materials for the history of late Chosŏn dynasty, especially in politics and legislative processes. Unfortunately, records before the Imjin War were lost and only 273 volumes from 1617 to 1892 are extant.

The *Sŭngjŏngwŏn ilgi* is also a daily record and covers important court affairs in

⁴ Yi Uk 이옥, '15segi huban kihu t'ŭksŏng ū pigyo sajŏk koch'al - Chosŏn wangjo *sillok* kihu kwallyŏn kirok sinbingsŏng kŏmt'o ū han sarye' 15세기 후반 기후특성의 비교사적 고찰 — 『조선왕조실록』 기후 관련 기록 신빙성 검토의 한 사례, *Kukhak yŏn'gu* 국학연구, no. 21 (2012): 389–416; Yi Chŏngch'ŏl 이정철, 'Chosŏn wangjo *sillok* kamum hyŏnsang ū kirokkwa silje -Sejong chŭkwinyŏn-Sejong18 nyŏn ūl chungsim ūro' 조선왕조실록 가뭄 현상의 기록과 실제 -세종즉위년-세종 18년을 중심으로, *Kukhak yŏn'gu* 국학연구, no. 25 (2014): 421–51.

great detail from 1623 to 1894. The six royal secretaries at the Royal Secretariat closely assisted and observed the kings and recorded everything that was reported to kings, necessary drafts from the Six Ministries, every report from the Taegan (臺諫 Censorate), the main contents of *sangso* (上疏 Memorials to the throne), royal decrees, daily reports of extraordinary natural phenomena from the Kwansanggam (觀象監 Office of Astronomy), and other important affairs.⁵ Because it contains records on the Chosŏn kings' public life and interactions with the bureaucracy that was not always included in *sillok*, the *Sŭngjŏngwŏn ilgi* is one of the most important supplementary sources when seeking information on the detailed process of discussions before any issue was raised and determined at the Chosŏn central court. For example, *Sŭngjŏngwŏn ilgi* provides many details on the health of Chosŏn King Sukjong (肅宗 r. 1674-1720) including his physical condition, as will be shown in chapter 6. Such concrete daily records make it possible for modern historians to reconsider a king's decisions as well as his absences at domestic activities and some diplomatic rituals.

Since this current study concentrates on epidemics, a rarely-used source entitled *Yŏje tŭngnok*, also used in the compilation of the *sillok*, comes to our attention, because of its records on the rituals known as *yŏje* 厲祭. These rituals were conducted for those who died from infectious diseases and wars. The *Kukcho orye sŏrye* 國朝五禮序例 (Introductory Remarks on National Rituals, 1474), established in the early Chosŏn dynasty, regulated the Confucian rituals at the temple for abandoned ghosts (*yŏje-dan* 厲祭壇), and its main purpose was to memorialize people whose descendants could no longer hold the necessary funerals mainly due to death by infectious diseases.⁶ These rituals were normally held on sunny spring days, the full moon of the seventh month in autumn, or the first day of the tenth month in winter. Along with the capital ceremony,

⁵ Kim Chongsu 김충수, 'Sŭngjŏngwŏn ilgi p'yŏnch'an ch'eje wa t'a munhŏn kwa ūi pigyo kŏmt'o' 『승정원일기』 편찬체제와 타 문헌과의 비교 검토', *Inmunhak nonch'ong* 인문학논총, 2003, 395-405.

⁶ Jahyun Kim Haboush and Martina Deuchler, eds., *Culture and the State in Late Chosŏn Korea* (Cambridge, Massachusetts, and London: Harvard University Asia Center, 2002), 176.

local regions also held rituals. Accordingly, *Yöje tǔngnok* collected and compiled reports from the Ministry of Rituals (Yejo 禮曹) and from provincial administrations from 1637 to 1727, thereby offering vital clues as to the time, location, and severity of epidemics throughout the period of this study.⁷

Comparison of information on epidemics in various records

A comparison of records associated with epidemics in the *sillok*, *Pibyönsa tǔngnok*, *Sǔngjǔngwǒn ilgi*, *Yöje tǔngnok* can illuminate the question of their reliability. Below, I consider two test cases to offer comparisons of the available data, but the test cases had to be carefully chosen, because the document record is patchy until late in the 1630s. For example, the existing collections of *Pibyönsa tǔngnok* start from Kwanghae-gun's reign in 1617 and the first record of epidemics appeared in the same year, for Hamgyöng province. However, the next record on epidemics does not appear until the year 1638, the 16th year of Injo's reign (1623-1649). It is unlikely that no epidemic diseases occurred during the intervening period as it is well known that smallpox and rinderpest were rife in the early seventeenth century.⁸ In this case, such a lack of data is probably a consequence of a loss of the *Pibyönsa tǔngnok*'s contents. Turning to *Sǔngjǔngwǒn ilgi*, we must note that, due to the damage caused by the Japanese during the Imjin war, some earlier annals of *Sǔngjǔngwǒn ilgi* are not extant, so the existing Royal Secretariat records only start from 1623 (the 1st year of King Injo, 仁祖) and continue to 1894 (the 31st year of the King Kojong, 高宗), with some loss and replacement due to fire. The first *Sǔngjǔngwǒn ilgi* record on epidemics appears for 1625 and records information on outbreaks in prisons.⁹ Considering that the data set from *Pibyönsa tǔngnok* is more complete only from 1638, the first comparison below

⁷ *Yöje tǔngnok* 厲祭膳錄 (Transcribed records on ritual for abandoned spirits). vol 1, Kyu.12880, 031a, Kyujanggak Institute of Korean Studies, accessed October 11, 2021, http://kyudb.snu.ac.kr/book/text.do?book_cd=GK12880_00.

⁸ Oh Chaekun 오재근, 'Chosön üigwan Hō Chun üi tuch'ang üihak kwa p'yönjüng 조선 의관 허준의 두창 의학과 "변증"', *Üisahak* 의사학 30, no. 1 (2021): 35–68; Kim Dongjin 김동진, Yu Hansang 유한상, and Lee Hang 이항, '17segi huban uyök üi chugijök yuhaeng i kigün chönyömyöng hohwan e mich'in yonghyang 17세기 후반 우역의 주기적 유행이 기근·전염병·호환에 미친 영향', *Üisahak* 의사학 23, no. 1 (2014): 1–56.

⁹ *Sǔngjǔngwǒn ilgi* 5 Injo 3 (1625.4.22)

therefore first selects examples of rinderpest outbreaks that occurred from around 1637 until 1639 during King Injo's reign. The second comparison below examines the existing records on epidemics through the reign of Hyojong (1649-1659), because a valid comparison requires keeping the examined period relatively consistent among all the sources to mitigate the impacts of the variables of time length and the availability of extant records.

Records in these three official documents –*sillok*, *Pibyŏnsa tŭngnok*, and *Sŭngjŏngwŏn ilgi* –record the same outbreak of rinderpest and its aftermath in Chosŏn society despite slight time differences in the compilation.¹⁰ The earliest mention of the 1636 rinderpest outbreak occurred in Pyŏngan province on the 15th of the eighth month and spread immediately from the west to the south, thus claiming numerous lives of horses in Hansŏng, as well, in the ninth month.¹¹ In the following year, rinderpest broke out in all eight provinces of the peninsula.¹² The death of so many cows left farmlands deserted, thus worsening famines and epidemics, especially in Hamgyŏng province to the north. Compounding the shame of having failed to stop the Manchu invasion of Chosŏn, the Chosŏn court now had to ask the Manchus for provisions.¹³ According to *sillok*, famines and epidemics continued and occurred almost every year in different regions throughout this period.¹⁴

Confronted with such continuous disasters, officials at the time tended to connect them with the moral failings of the king. Sometimes, the historians also included their opinions and commented in a similar fashion while compiling the *sillok*.¹⁵ For example, King Injo's morality was criticised in connection with outbreaks: 'Recent years have been witnessing famines along with conscriptions and epidemics, thus leaving nearly everyone dead. Nevertheless, we have not heard uttered a single policy or royal act to

¹⁰ There are records in *Yŏje tŭngnok* suggesting human epidemics in 1638; however, rituals were aimed to serve the abandoned spirits of people who died of outbreaks, which did not include animal epidemics, like the cow deaths discussed here due to rinderpest.

¹¹ *Injo sillok* 33: 12B (1636.8.15). 丙戌/平安道牛疫大熾, 無一得生者。

¹² *Injo sillok* 35:16B (1637.8.7). 壬寅/備局啓曰: "牛疫之患, 八路同然, 明年農事, 殊極可慮。

¹³ *Injo sillok* 37: 15B (1638.6.12). 以師期、軍餉等事, 陳奏於清國。

¹⁴ *Injo sillok* 44: 8A (1643.3.3).

¹⁵ Scholars have discussed much about the underlying political explanations of some extraordinary natural phenomena in ancient Asian contexts. Park Seongrae, 'Portents and Politics in Early Yi Korea, 1392-1519.' University of Hawai'i, 1977.

alleviate the people's ills.¹⁶ There was, of course, another reason why political analysis and comments proliferated during King Injo's reign.¹⁷ The Manchus invaded Chosŏn in the twelfth month of 1636, and that resulted in the Chosŏn court having to send tribute to the newly established Manchu Qing dynasty, who were considered 'barbarians' in the Chinese world order of which Chosŏn was a part. Acceptance of Qing suzerainty caused a heated discussion at the Chosŏn court over whether to attack the Manchus, because Chosŏn elites had traditionally regarded their country as a 'little China,' the tributary vassal *par excellence* of the Ming.¹⁸ The new relationship with Qing resulted in opponents criticizing the king, and frequent natural disasters were used by them to decry a perceived lack of virtue on his part. Even the overview of King Injo's reign at the end of his *sillok* records such comments.¹⁹

When records associated with epidemics appear in the *sillok* one must therefore carefully judge the accuracy of expressions like 'continuous famines and epidemics,' 'none survived,' or 'most died,' since these claims could be exaggerated for ideological reasons. However, a comparison with other sources, compiled at the same time, and without a view to posterity, reveals that they too record a bitterly difficult living environment and severe outbreaks of epidemics in these years.

The *Sŭngjŏngwŏn ilgi*, for example, depicts continuous rinderpest outbreaks from 1636 to 1639.²⁰ Looking at the *Pibyŏnsa tŭngnok*, although it does not directly depict this particular calamity in the years it happened because the records for 1636, 1637, and 1639 are missing, records in the following years do support what was written in the *sillok* and the *Sŭngjŏngwŏn ilgi*. The *Pibyŏnsa tŭngnok* record for 1638, for example,

¹⁶ *Injo sillok* 44: 8A (1643.3.3). 近年以來，連歲凶歉，加之以師旅，繼之以癘疫，流散相繼，死亡殆盡，而未聞發一令行一政，以救無告之赤子

¹⁷ Take some representative examples as below. *Injo sillok* 44:2A (1643.1.23); *Injo sillok* 44:7B (1643.2.28); *Injo sillok* 44:8A (1643.3.3).

¹⁸ See more research on "Little China". Sun Weiguo 孙卫国. *Daming qihao yu xiaozhonghua yishi* 大明旗号与小中华意识. Beijing: Shangwu yinshuguan, 2007. Sun Weiguo. *Cong zunMing dao fengQing: Chaoxian wangchao dui Qing yishi zhi shanbian, 1627-1910* 從「尊明」到「奉清」：朝鮮王朝對清意識之嬗變, 1627-1910 (Taipei: Taida chuban zhongxin, 2018).

¹⁹ *Injo sillok* 50:20B. 亂後牛疫大熾，倒損殆盡，驅諸處牧場所畜，散與郡邑，牛大蕃息，民不病耕。或召大臣及備局之臣，或召近臣，求聞過。嘗謂金塗曰："元勳，與國家同休戚之人，入侍之日，亦不言予之失，可乎？"後又謂大臣曰："弭災之術，不外乎人主之改過，又在於得人才。不出斯二者而已，若有失則臺官可以言之，而進賢之責，大臣可以當之。"

²⁰ A large number of records on rinderpest in years of 1636 and 1637 in *Sŭngjŏngwŏn ilgi*, for example, there were four direct related notes in the ninth month. See also *Sŭngjŏngwŏn ilgi*, 1636.9.19; 1636.9.21; 1636.9.24.

noted commonly seen famines and epidemics in the northern areas, while a record relating to rinderpest was found later in the entry for 1641. This entry for 1641 records that, ‘Now after the outbreak of rinderpest, wealthy villagers possess big cows, while ordinary people do not have any. (Cows) must be too expensive to have to farm, thus leaving lands much barer than before.’²¹ Although the exact period of the previous rinderpest outbreak is not recorded in this particular case, it nonetheless strongly suggests that the increased price of cows was due to a previous outbreak of rinderpest that had occurred between 1636 and 1639. Similarly, another record from the *Pibyōnsa tūngnok* entry for 1641 also confirms that there was rinderpest in 1637: ‘in the year of chōngch’uk 丁丑, officers in Kyōnggi distributed cows and after the rinderpest outbreak, there were only around 630 left alive.’²² The *chōngch’uk* year refers to the year 1637 and exactly the same notes in *Pibyōnsa tūngnok* can be found in *Sūngjōngwōn ilgi*, and similar passages appear in the *sillok*.²³ The overlapping of these records not only confirms the reliability of records in *sillok* but also adds more information, thus using these sources in combination can increase the reliability of the dataset.

The above has discussed those matching records among sources regarding a single outbreak, while the following is an example of examining the records in different sources by selecting a decade during the reign of King Hyojong (r. 1649-1659). I first created a list of classic Chinese terms referring to infectious or severe diseases, epidemics, or specific epidemic names.²⁴ Then by searching through digital editions of the sources for these keywords, I identified the number of records referring to epidemics in a given year such that the results of these keyword searches in each digital database of these official documents formed the basic data for the following analysis of sources. Meanwhile, it should be noted that entries sometimes mentioned previous outbreaks.

²¹ *Pibyōnsa tūngnok*, 1641.7.4. 即今牛疫後, 豪民則有牛, 小民則無牛, 必給重價然後, 可以借牛起耕, 故田野益荒於前日

²² *Pibyōnsa tūngnok*, 1641.8.4. 則丁丑年間, 京畿各官分給牛隻經疫之後, 餘存者尚有六百三十餘頭

²³ Cf. *Sūngjōngwōn ilgi* 79 (1641.7.4); *Sūngjōngwōn ilgi* 79 (1641.8.4); *Injo sillok* (1636.9.21), *Injo sillok* 36 : 1B (1638.1.4). Because the *Yōje tūngnok* does not include the rinderpest, this comparison does not take it into consideration.

²⁴ The list of keywords is 疫, 癘, 瘟, 痘, 疹, 染疾, 染病, 傳染, 惡疾 疾疫, 傷寒, 瘧 and 瘡.

Records that referred to epidemics in previous periods, for example, mentions of 1637 rinderpest outbreaks in a 1641 record, were still counted as entries for the compilation year, because they discussed the aftermath and lingering effect of the previous outbreak.²⁵

Throughout the reign of King Hyojong, or from 1649 to 1659, there were four years in which records relating to epidemics appear in the *Pibyŏnsa tŭngnok*, as seen in Table 1 (1649, 1650, 1653, 1656); seven years in *sillok*, as shown in Table 2 (1649, 1650, 1651, 1653, 1654, 1655, 1656); all eleven years of his reign in the *Sŭngjŏngwŏn ilgi*, as shown in Table 3; and five years in *Yŏje tŭngnok* (1650, 1653, 1654, 1655, 1656) as seen in Table 4. Overall, these four sources generally match each other. What recorded in the *Pibyŏnsa tŭngnok* can all be traced in the *sillok* and most records in the *sillok* can be found in the *Sŭngjŏngwŏn ilgi* and the *Yŏje tŭngnok*. The question remains as to why there were so many extra records of epidemics in the *Sŭngjŏngwŏn ilgi*?

Table 1 Records of epidemics in *Pibyŏnsa tŭngnok* during King Hyongjong's reign

Time	Locations of epidemics	Main Contents
1649.5.22	Hamgyŏng province	Urgent help requested in order to cope with an outbreak of epidemics in Hamgyŏng province
1649.8.26	Hamgyŏng province	Report of sending aid to people in northern provinces
1650.1.16	Hamgyŏng province	Major famine, the need to prepare aid in the form of rice
1653.3.7	Every province especially the western sea Hwanghae province	Provisions of food and medicine to relieve people infected by epidemics
1653.3.20	western sea area	People fled to other regions because of severe epidemics.
1656.1.29	Capital	Severe epidemics and infected patients sent to the Hwarinsŏ in the western and eastern suburbs (東西活人署, Saving the Destitute Agency).

²⁵ Cf. *Hyojong sillok* 20: 13A (1658.3.11); *Sŭngjŏngwŏn ilgi* 79 (1641.7.4). Mentions of someone who had never contracted smallpox are not accounted as entries here.

Table 2 Records of epidemics in the *Sillok* during King Hyojong's reign²⁶

Year	Locations of epidemics	Main contents
1649	Hamgyöng province	The court ordered the Office of the Royal Physicians to send medicine to relieve those suffering from epidemics in Hamgyöng province.
1650	Hwanghae province, Hamgyöng province, Capital Hansöng	Epidemics struck these regions and the court sent medicine. Infected patients in Hansöng were sent to the <i>Hwarinsö</i> in the western and eastern suburbs. In addition, quite a few people got smallpox.
1651	Pyöng'an province, prisons	Pyöng'an province was hit by epidemics and so medicine was sent and funeral rituals were held for the dead people. Many jails reported that numerous prisoners died of epidemics.
1653	Kaesöng, Hwanghae province, western regions, Kangwön province	All these epidemic-stricken regions reported numerous deaths to the central court and asked for medicine. Two provinces in the west witnessed their locals fleeing to other areas.
1654	Eight provinces especially Chölla province, Hwanghae province, southern areas	The situations of epidemics in the southern parts of the Korean peninsula were more severe, among which Chölla province witnessed more deaths and deserted lands than the others.
1655	Chölla province, Kyöngsang province, Hamgyöng province, Hwanghae province, Pyöng'an province, Kyönggi province	Epidemics broke out over almost the whole Korean peninsula along with natural disasters. An earthquake occurred in Chölla province, frost and locusts in Ch'ungch'ing province, and windstorms in Hamgyöng province. Rituals for the dead were held in Chölla, Kyöngsang, and Hamgyöng, the most severely epidemic stricken regions.
1656	Capital, Ch'ungch'öng province, Kyöngsang province	Outbreaks of epidemics in these three areas.

Table 3 Records of epidemics in *Süngjöngwön ilgi* during King Hyojong's reign

Year	Locations of epidemics	Main contents
1649	Hamgyöng province	The court ordered the Office of the Royal Physicians to send medicine to relieve those suffering from epidemics in Hamgyöng province.

²⁶ There are 43 pieces of records on epidemic outbreaks in *Chosön wangjo sillok* during the reign of King Hyojong, but this part summarizes the contents of data and draws the table only by a unit of year.

1650	Hamgyŏng province, Pyŏng'an province, Capital Hansŏng	Epidemics struck the northern regions. One officer in Pyŏng'an province reported smallpox cases there. The deputy Qing envoy contracted smallpox and postponed his travel to Hansŏng.
1651	Prisons	Ministers reported some cases of smallpox. Many jails reported that numerous prisoners died of epidemics.
1652	No locations specified	Infectious diseases happened among hawks. Discussions on the aftermath of rinderpest in 1637.
1653	All provinces, especially Hwanghae province and western regions	All these epidemic-stricken regions reported numerous deaths to the central court and asked for medicine. Two provinces in the west witnessed their locals fleeing to other areas.
1654	Especially southern areas, Chŏlla province, Kyŏngsang province	The situations of epidemics in the southern parts of the Korean peninsula were more severe, among which Chŏlla province witnessed more deaths and deserted lands than the others. Rituals for the dead were also held there. Some ministers also reported smallpox cases in towns.
1655	Hamgyŏng, The capital	Epidemics broke out in Hamgyŏng, where a ritual ceremony for the dead was held. Smallpox outbreaks hit the capital and even infected the Qing envoy on his travels.
1656	Suburbs of the capital and no other locations specified	Numerous towns were struck by smallpox outbreaks and several ministers reported smallpox cases in their families.
1657	Inside and outside the capital, Kyŏnggi province, Hwanghae province	Epidemic outbreaks threatened the towns inside and outside the capital area and Hwarinsŏ received three thousand infected patients. Ministers reported smallpox cases in their families. Several places held rituals for the dead.
1658	Suburbs of the capital and no other locations specified	Smallpox outbreaks continued in the suburbs of the capital and ministers reported smallpox cases in their families.
1659	Pyŏng'an province, Capital	Smallpox outbreaks continued in the capital. Sudden numerous deaths occurred in Pyŏng'an province, which was doubted as an epidemic outbreak and so the central medical institute immediately sent an expert doctor and medicine there. Rinderpest outbreaks re-occurred again in towns.

Table 4 Records of epidemics in *Yŏje tŭngnok* during King Hyojong's reign

Year	Locations of epidemics	Main contents
1650.12.16	Pyŏng'an province	Numerous people died of epidemics and rituals were held for the dead.

1653.2.23	Kyönggi province	Kaesöng and some other counties held rituals.
1653.3.3	Hwanghae province	Rituals were held.
1654.5.11	Chölla province	Numerous people died of epidemics and rituals were held for the dead.
1654.6.4	Chölla province	Numerous people died of epidemics, rituals were held for the dead, and the province was eager for medicine.
1655.3.3	Hamgyöng province	Numerous deaths and emergent need of medicine
1655.3.29	Kyöngsang province;	Numerous people died of epidemics, rituals were held for the dead, and the province was eager for medicine.
1655.4.9	Chölla province	Rituals were held.
1656.5.20	Hansöng	Rituals were held.

Table 5 Records of epidemics in sources during King Hyojong's reign

Record number Year	<i>Süngjöngwön ilgi</i>	<i>Sillok</i>	<i>Yöje tǔngnok</i>	<i>Pibyönsa tǔngnok</i>
1649	4	1	-	2
1650	8	7	-	1
1651	7	4	1	Lost
1652	2	-	-	-
1653	6	10	2	2
1654	11	8	2	-
1655	13	9	3	Lost
1656	8	4	1	1
1657	8	-	-	-
1658	5	-	-	Lost
1659	5	-	-	Lost

Table 5 amalgamates the statistics, and we can see that the *sillok* has more records than *Pibyönsa tǔngnok* and *Yöje tǔngnok* but fewer than *Süngjöngwön ilgi*. The main reason for the differences is closely related to the compilation process for each record. As noted before, *Pibyönsa tǔngnok*, *Yöje tǔngnok*, and *Süngjöngwön ilgi* were all primary sources for the *sillok*, and the *sillok* was compiled by collecting and recording these and other materials. Therefore, it is not surprising that there are more details for

epidemics recorded in *sillok* than *Pibyönsa tŭngnok*, but the larger number of reports in the *Sŭngjŏngwŏn ilgi* indicate its role as a central clearing house for information. Not surprisingly, not every outbreak necessitated a sacrifice, and that probably accounts for the lower number in *Yöje tŭngnok*. The apparent completeness of *Sŭngjŏngwŏn ilgi* should also be tempered.

Table 3 for the *Sŭngjŏngwŏn ilgi* also shows that some records of epidemics do not specify the precise locations (e.g., in years 1656 and 1658), and these records appear to be mainly reports from Chosŏn government ministers suggesting infected cases in their families. The limited nature of the outbreak and the included information probably explain why these reports were not chosen for inclusion in the *sillok*.²⁷

The nature of *Pibyönsa tŭngnok* is clearly different from *Sŭngjŏngwŏn ilgi*. *Pibyönsa tŭngnok* only recorded those urgent issues discussed in the Border Defense Council and excluded reports on infections within ministerial families, although it also adopted the format of recording daily events in the Council. These discussions focused on practical actions such as border defense and taxation, leading to a more spatial focus on the northern part of the peninsula, where the threat of invasion was greatest. The spatial concern is apparent in Table 1 and Figure 5. By contrast, epidemics did not become a heated issue, and were only mentioned if the Border Defense Council had to respond to the requests of provinces that had been severely struck and which were in great need of urgent aid, such as sending medicine, preparing food, and isolating the infected at Hwarinsŏ in the eastern and western suburbs of the capital. Thus, regions where epidemics existed but were less severe were usually not included in the discussions of the Border Defense Council, whereas they were recorded in the *sillok*, because of records having been included in other sources.

While these tables are a good example of the differences of records on epidemics in different sources, they also show how to use the various records as complementary evidence. For example, regarding the epidemic outbreaks during the early period of King Hyojong's reign, as reported in *sillok*, Kaesŏng province had already reported

²⁷ Some examples can be found at: *Sŭngjŏngwŏn ilgi* 142 (165.10.18); *Sŭngjŏngwŏn ilgi* 143(1656.11.15); *Sŭngjŏngwŏn ilgi* 148 (1658.1.8); and *Sŭngjŏngwŏn ilgi* 153 (1658.11.18).

widespread epidemics and numerous deaths, and medicine had been sent in 1653.²⁸ Following this in the same year, Hwanghae province, the western coastline, and Kangwŏn provinces also discovered epidemics and sent urgent requests for medicines to the central court.²⁹ In the year 1654, this epidemic thus seems to have posed a threat to the whole Korean peninsula and the calamity continued in 1655 and 1656.³⁰ Other sources present particular problems in recording outbreaks. The 1651 and 1655 annals of *Pibyŏnsa tŭngnok* were lost and some years of *Yŏje tŭngnok* are also missing, but most of the records in the *sillok* can also be corroborated by other sources, as shown in Table 5.³¹

At the same time with the successive epidemic outbreaks in the early 1650s, the Korean peninsula also experienced a series of extraordinary phenomena. It snowed in mid-summer of 1655 across the Chosŏn peninsula. Chosŏn also requested the help of grain transportation from the Qing empire.³² The abnormal climatic conditions affected the harvest that year, leading to famines and forming the background for the compilation of an agricultural book entitled *Nongga chipsŏng* (農家集成, *Compendium of farming*) in 1655.³³ Given these weather conditions and the famines associated with them, epidemics were highly likely to occur at the same time, and this partly explains the higher number of epidemics recorded in the *Chosŏn wangjo sillok* for these years.

The extreme weather and poor harvests could have been linked to El Niño events around this time.³⁴ Strange climate and extreme weather occurred widely in the Northern Hemisphere. The period 1580 to 1640 saw some of the weakest East Asian monsoons of the past two millennia.³⁵ In Barcelona, drought destroyed the Catalan

²⁸ *Hyojong sillok* 10:32A (1653.2.17).

²⁹ *Hyojong sillok* 10:32A (1653.2.19); *Hyojong sillok* 10:33A (1653.2.22).

³⁰ *Hyojong sillok* 12:14A (1654.2.29); *Hyojong sillok* 14:23B (1655.4.27).

³¹ *Hyojong sillok* 16:2B (1656.1.25); *Hyojong sillok* 16:28B (1656.4.2); *Hyojong sillok* 16:29B (1656.4.18). For comparison, see also *Pibyŏnsa tŭngnok* 16 (1653.3.7); *Pibyŏnsa tŭngnok* 16 (1653.3.20); and *Pibyŏnsa tŭngnok* 16 (1656.1.29).

³² Kim Moonkee 김문기, '17 seki Chungguk kwa Chosŏn ūi kigŭn kwa kukche chŏk kongmul yut'ong 17 세기 중국과 조선의 기근과 국제적 곡물유통', *Yŏksawa Kyŏnggye* 역사와 경제 85 (2012.12): 347.

³³ Par Geun-pil 박근필, 'Kihu wa nongŏp ūi misi punsŏk (1653-1655) ūl t'onghae pon *Nongga chipsŏng* p'yŏnch'an ūi paegyŏng 기후와 농업의 미시분석(1653-1655)을 통해 본 『농가집성』 편찬의 배경', *Nongŏpsa yŏn'gu* 4, no. 2 (2005): 15-33.

³⁴ Joëlle L. Gergis and Anthony M. Fowler, 'A History of ENSO Events since A.D. 1525: Implications for Future Climate Change', *Climatic Change* 92, no. 3 (2 January 2009): 370-71; Parker, *Global Crisis - War, Climate Change and Catastrophe in the Seventeenth Century*, 14-17.

³⁵ Zhang Pingzhong et al., 'A Test of Climate, Sun, and Culture Relationships from an 1810-Year Chinese Cave

harvest in 1650 and drastically reduced the seed corn available for 1651, when plague broke out. From 1650 to 1674, England had the lowest demographic growth.³⁶

Temporal and spatial analysis of epidemic patterns in Chosŏn (1576-1720)

The existing scholarship to date has relied mainly on the *sillok* to gauge epidemic frequency and severity in the Chosŏn dynasty. However, no research has yet examined the reliability of the different official documents or the consistency of epidemic patterns across these multiple sources.³⁷ The preceding offered just two examples of records within a short time period to compare the features of the four primary Chosŏn official documents. The following synthesizes all the records related to epidemics in these sources to present the apparent temporal and spatial concerns of these sources and discerns patterns of epidemic outbreaks from the late sixteenth to the early eighteenth centuries on the Korean peninsula.

Figures 1 to 3 show the temporal distributions of epidemic records across the seventeenth century until 1720. These records are taken from *Pibyŏnsa tŭngnok*, *Sŭngjŏngwŏn ilgi*, and *sillok*.

Record', *Science* 322(2008): 940-942.

³⁶ Parker, *Global Crisis - War, Climate Change and Catastrophe in the Seventeenth Century*, 59, 86.

³⁷ Yi Kyukeun 이규근, 'Chosŏn hugi chilbyŏngsa yŏn'gu -Chosŏn wangjo sillok ūi chŏnyŏmbyŏng palsaeng kirok ūl chungsim ūro 조선후기 질병사 연구 -조선왕조실록의 전염병 발생 기록을 중심으로', *Han 'guksa yŏn 'gu hwibo* 한국사연구회보 116 (2001): 1-42; Kim Richard, 'Epidemic Management in Chosŏn, 1608-1800' (MA thesis, Oxford University, 2020).

Figure 1 Temporal distribution of records related to epidemics in *Pibyönsa tŭngnok*

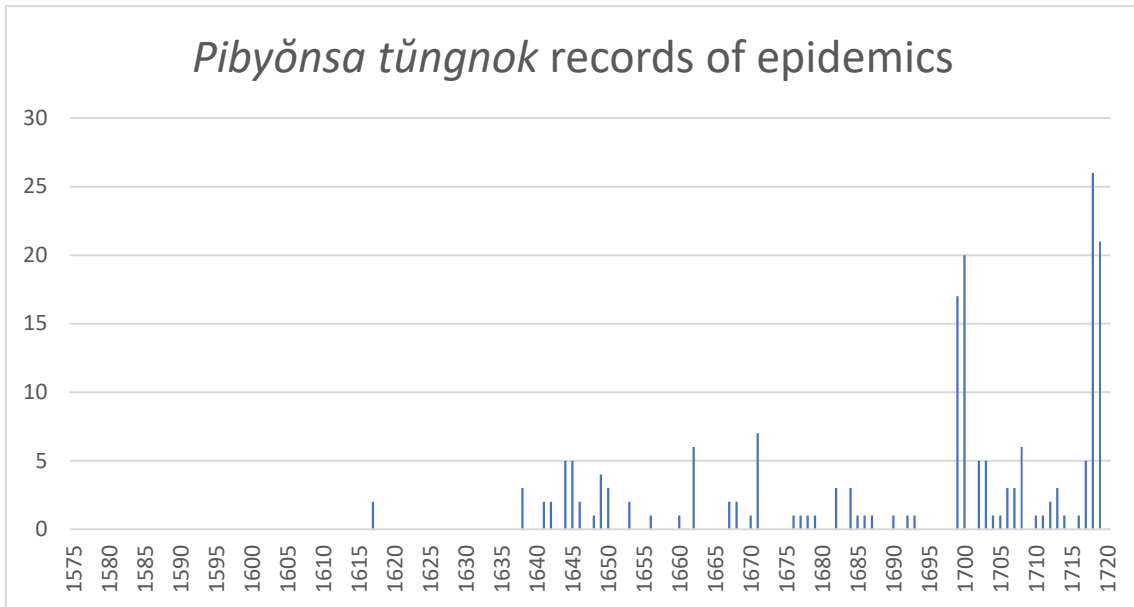


Figure 2 Temporal distribution of records related to epidemics in *Sŭngjŏngwŏn ilgi*

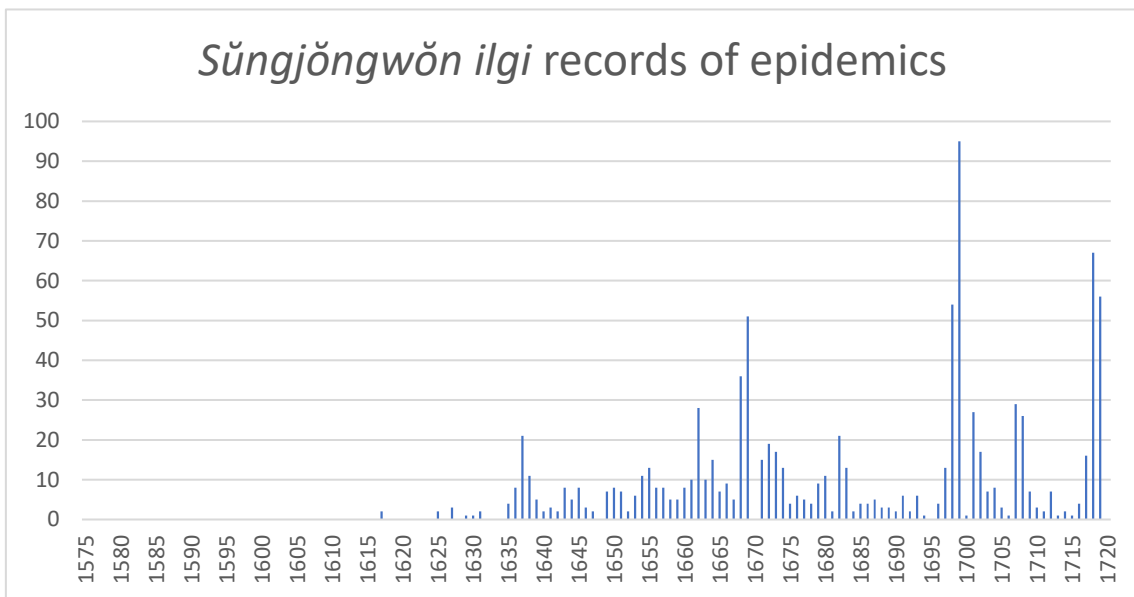
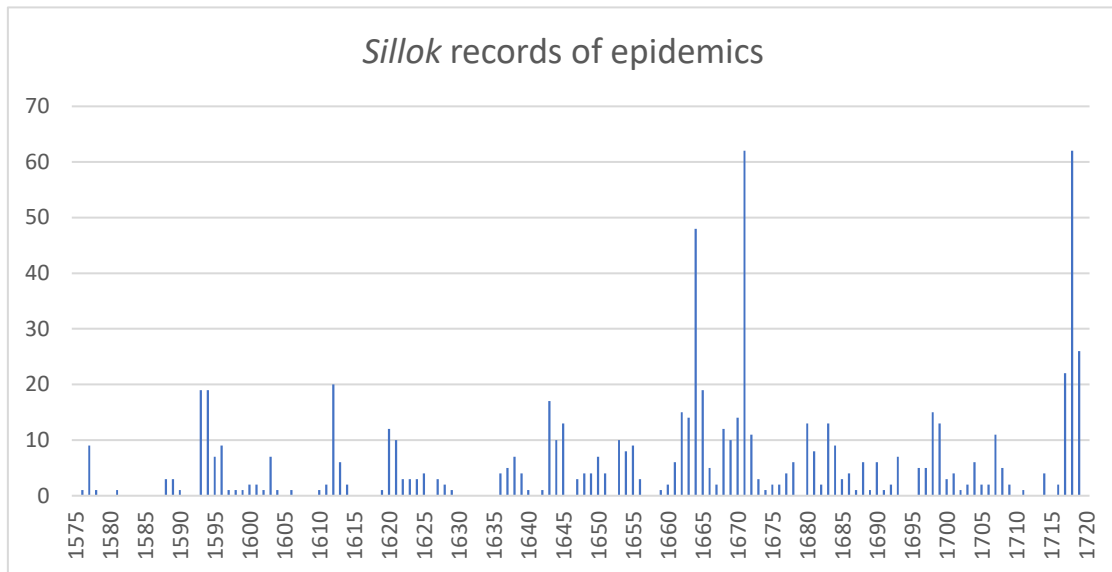


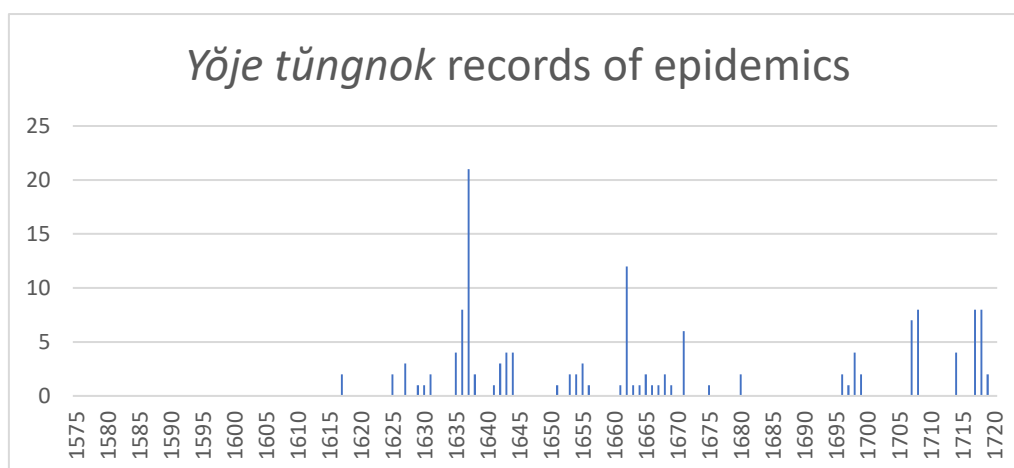
Figure 3 Temporal distribution of records related to epidemics in the *sillok*³⁸



It should be noted that these figures only present years with more epidemics related records around 1612, 1637, 1645, 1653, 1664, 1670-1, 1682, 1695-9, 1700 and 1720. It does not always indicate the exact years during which many epidemics occurred, because sometimes records discussed the aftermath of some devastating outbreaks that took place several years previously. For example, the great famine in the late 1690s was still mentioned in the records of the early 1700s, thus increasing the number of observations for those years. Therefore, there is a need to introduce a source that can represent the strongest and most devastating historical epidemic situations in order to provide a reference to assess the other official documents, and that source is *Yöje tŭngnok*.

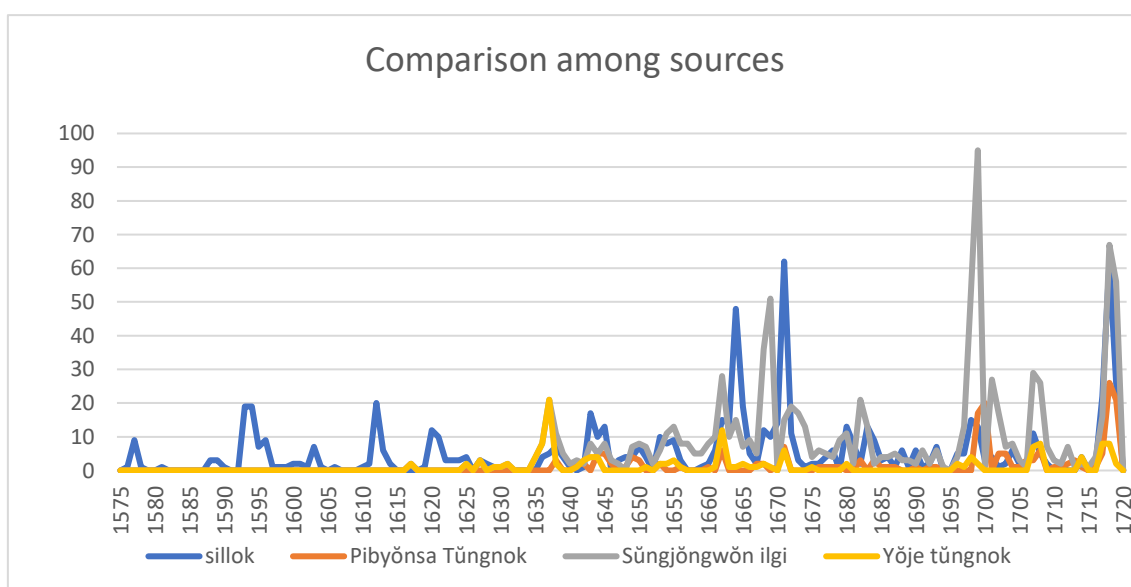
³⁸ The first record of epidemics examined in this graph appears in 1576 although X axis of the graph starts in 1575.

Figure 4 Temporal distribution of records related to epidemics in *Yöje tŭngnok*



One single epidemic outbreak would not have been considered deserving of a ceremony, and so rituals were only arranged for the most severe cases, and those are recorded in *Yöje tŭngnok*. This source contains not only details of the rituals but also, on occasion, records of the distribution of medicine. According to *Yöje tŭngnok*, severe epidemic years were: 1641-1644, 1653-1656, 1662-1668, 1671, 1696-1699, 1707-8, and 1717-1719, while those years without records suggest that there were no major epidemics, although we cannot rule out that some records might be missing. The epidemic peaks in *Yöje tŭngnok* are consistent with the temporal patterns in the *sillok* (Figure 3).

Figure 5 Temporal distribution of records related to epidemics in sources



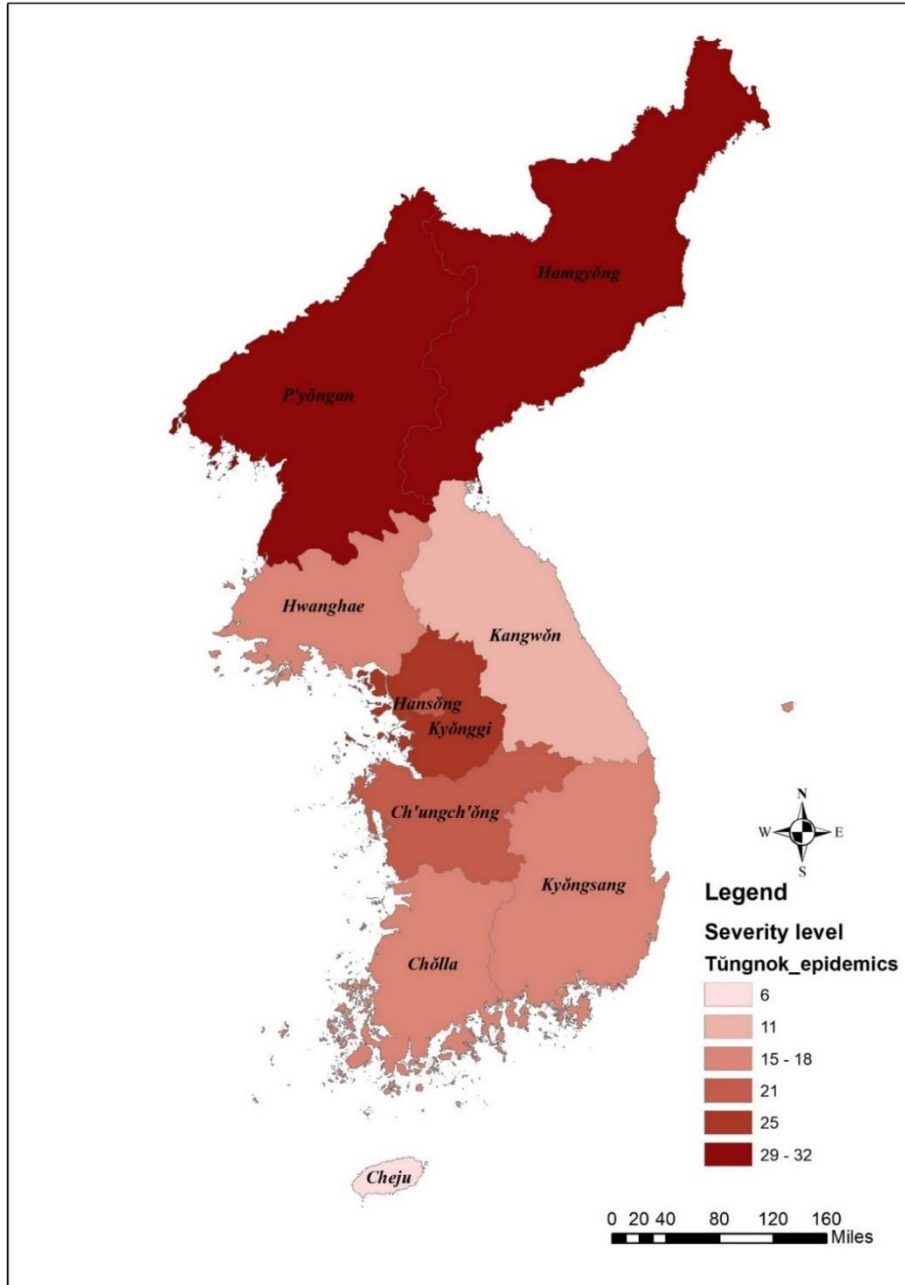
Overall, these figures from 1 to 5 suggest that the Korean peninsula struggled with outbreaks throughout the entire seventeenth and into the early eighteenth centuries. The epidemic peaks from 1592 to 1596 as shown in Figure 3 (from *sillok*) suggest the impacts of the Imjin War (1592-1598) on epidemic outbreaks and chapters 2 and 3 below will further discuss the relations between the war and outbreaks during and after the war, especially in the 1610s. As mentioned earlier in this chapter, the four sources suggest that years around 1637 witnessed severe rinderpest outbreaks and that Chosŏn during the reign of Hyojong in the 1650s was continuously struck by infectious diseases, among which smallpox was significant (Chapter 6). In addition, the years of epidemic outbreaks also overlapped the famine seasons, such as the Great Famine of *Kyŏngsin* in 1670-1 and the Great Famine of *Ŭlbyŏng* in 1695-9, which also helps to explain the sharp depopulation that occurred in the 1690s.³⁹ The following chapters will examine more outbreaks in detail.

Figures 6 to 9 present the spatial distributions of the epidemic records in the primary official documents. Records relating to epidemics in *Pibyŏnsa tŭngnok* appear more in the northern boundary lands, while records from *Sŭngjŏngwŏn ilgi* are concentrated in regions around the capital. These spatial features are directly related to the compilation process of these two documents, the former focusing on the issues discussed at the Border Defense Council (mainly interested in the northern borderlands) and the latter based in the Royal Secretariat (mainly concentrated on the capital regions). As these two official documents both have spatial preferences, the spatial distribution of epidemic-related records in *sillok* tends to be more reliable. Taking these factors into account, it becomes apparent that among all the regions in Figure 6, it was Hamgyŏng province that grappled with epidemics the most in the seventeenth century, followed by Ch'ungch'ŏng province and Chŏlla province. Next came Kyŏngsang province, and P'yŏngan province, followed by the capital.⁴⁰

³⁹ See also Jun Seong Ho, James B. Lewis, and Kang Han-Rog, 'Korean Expansion and Decline from the Seventeenth to the Nineteenth Century: A View Suggested by Adam Smith', *The Journal of Economic History* 68, no. 1 (March 2008): 244–82.

⁴⁰ Kim Richard's research shows that Kyŏnggi province had the worst epidemics, based on the *sillok*, during 1608-1800. Kim's observation method counted the number of years that recorded at least one human epidemic case. The result of his spatial analysis (Kyŏnggi as the focus) is because he included epidemic cases in the capital Hansŏng with

Figure 6 Spatial distribution of records related to epidemics in *Pibyönsa tŭngnok*



Kyönggi province data. See Kim, 'Epidemic Management in Chosön, 1608-1800'.

Figure 7 Spatial distribution of records related to epidemics in *Sŭngjŏngwŏn ilgi*

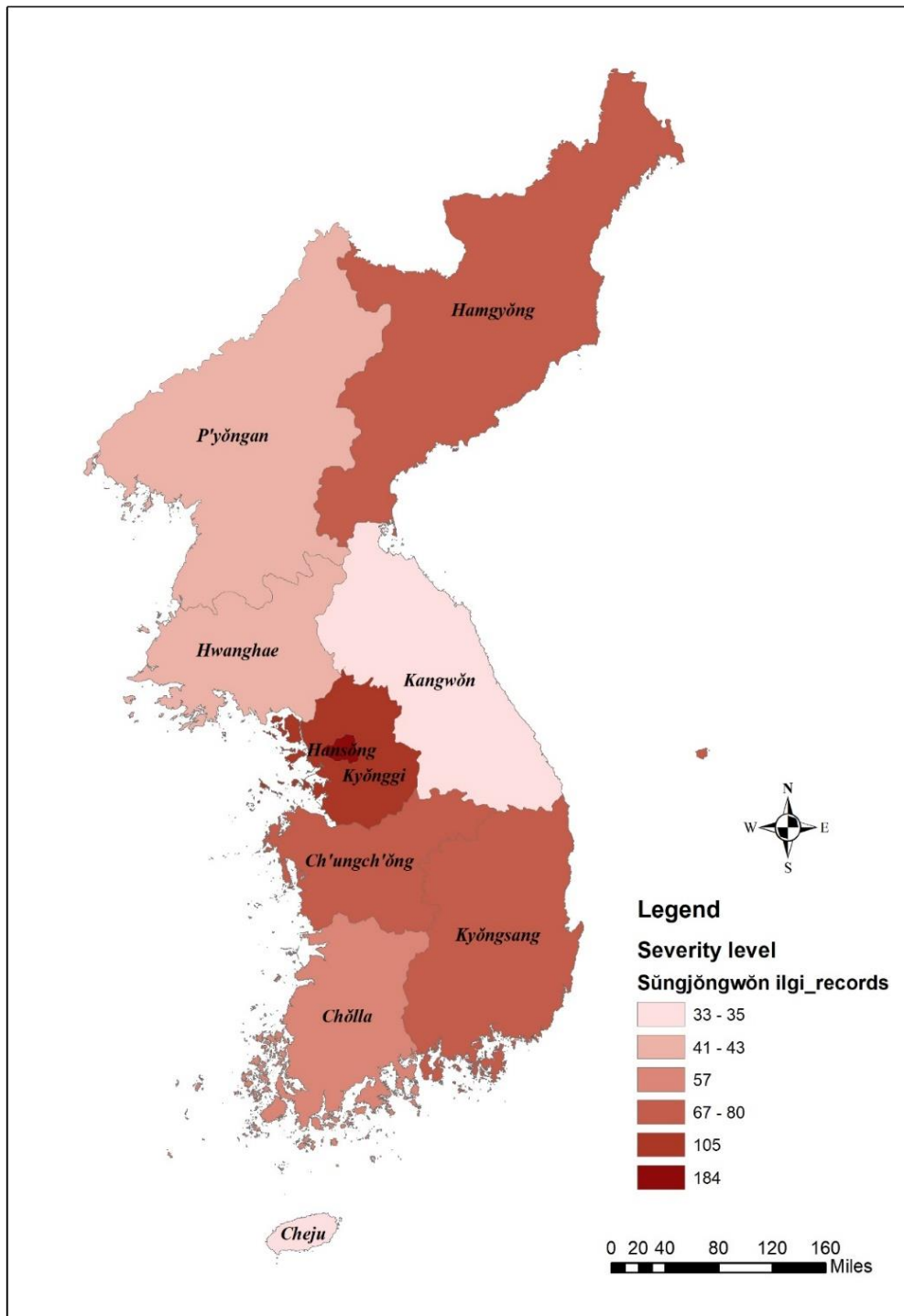


Figure 8 Spatial distribution of records related to epidemics relating in the *sillok*

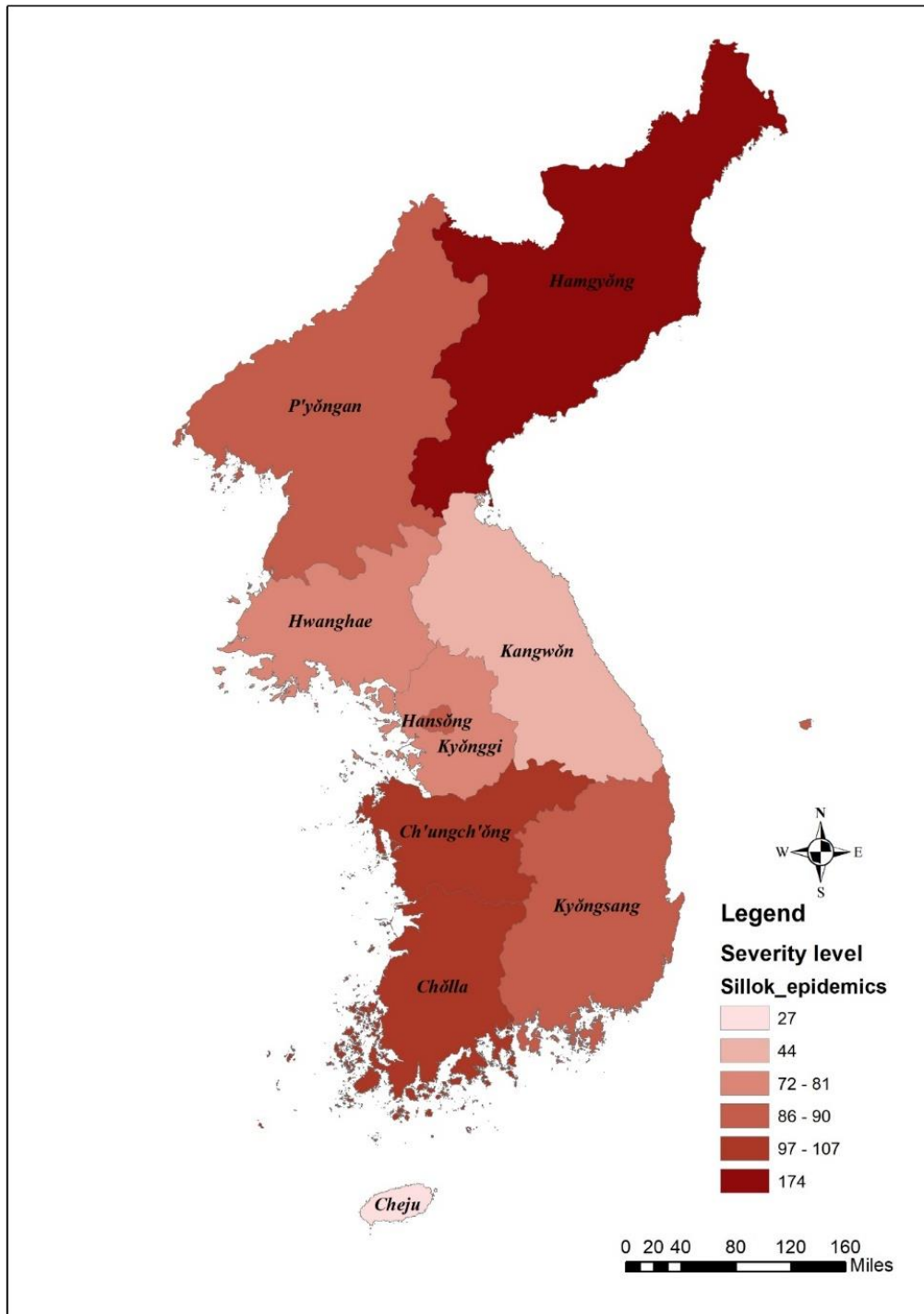
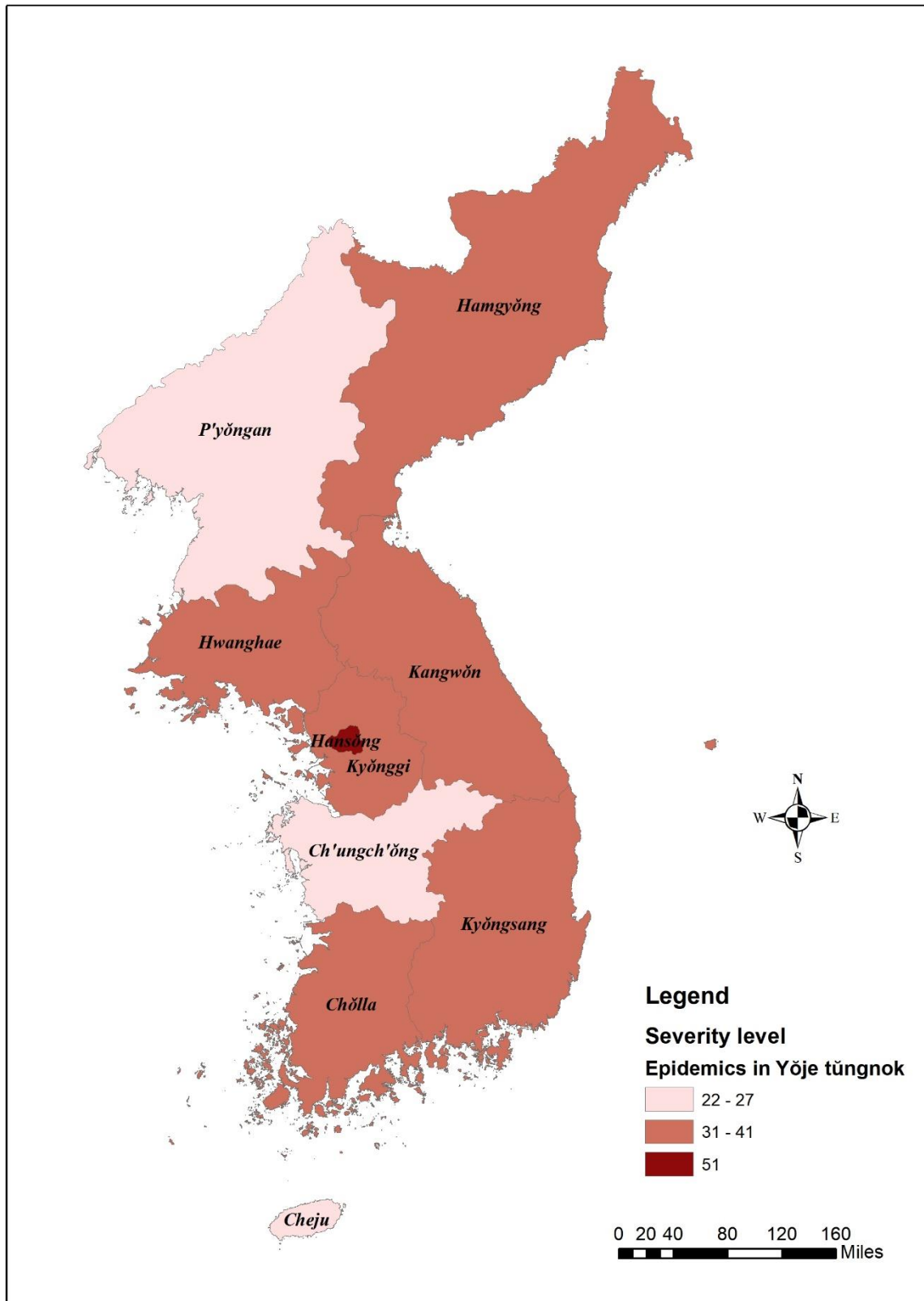


Figure 9 Spatial distribution of records related to epidemics in *Yöje tŭngnok*



Yöje tŭngnok shows that the capital held the most rituals for those who died and aside from the capital, the other regions experienced a similar frequency of rituals. It is highly likely that kings attended the most rituals in the capital, and they prayed for all the people who died from epidemics, thereby affecting the capital bias in the compilation of *Yöje tŭngnok*. Judging from the spatial patterns of these records relating to epidemics, the *sillok* is most reliable.

A final point to note is that these official documents compiled at the central court only allow for analysis of epidemics at a provincial level because most of the records omit specific counties or villages. For example, fifteen counties in Kangwŏn province represented by Kangnŭng were reported to be afflicted with outbreaks in 1664.⁴¹ This suggests that only two or three representative counties were named in the sources, while the majority of counties and villages remained anonymous. The epidemic severity in lower administration levels deserves further research and might be possible with the help of local sources, such as diaries, in the future.

Conclusions

Based on the above analysis, we can conclude that the compilation of *sillok* synthesized various other sources like *Sŭngjŏngwŏn ilgi*, *Pibyŏnsa tŭngnok*, and *Yöje tŭngnok* to record the history of epidemics. *Sillok* provides the least biased and nearly the most complete data available. Of all four sources, *Pibyŏnsa tŭngnok* has the fewest records on epidemics due to the loss of some annals and its spatial focus on the north, where border issues drew its attention. *Sŭngjŏngwŏn ilgi* is probably the most complete, in keeping with its position as closest to the raw reports coming in from the provinces, although it also contains a large number of reports from ministers and shows a spatial concentration on the capital for records related to epidemics. *Yöje tŭngnok* details the rituals for abandoned spirits during epidemic outbreaks and presents the exact historical epidemic years. Its records offer a sense of relative severity, because mild outbreaks would not have provoked sacrificial rites. Thus, when examining the history of

⁴¹ *Hyŏnjong sillok* 8:43A (1664.6.20). 江原道 江陵等十五邑, 癘疫熾發。

epidemics in the late Chosŏn dynasty we can conclude that the *Chosŏn wangjo sillok* is a valuable and reliable source, but that analysis benefits from comparing the *sillok* with other official documents. Thus, this dissertation utilizes all the four main sources and for some seemingly incongruent cases among these primary sources, I consider the differences and supplement these data sources by using diaries or other sources as necessary.

Converting the textual records of these official documents into graphs and maps shows the epidemic patterns of the mid to late Chosŏn dynasty from 1567 to 1720. There were numerous continuous years beset by severe epidemics: 1592-1596, 1612-1614, 1617-1618, 1636-1638, 1642-1644, 1653-1656, 1662, 1670-1, 1678, 1695-1699, 1707, and 1718-1719. The use of spatialization also helps to show that the northern boundary areas, especially Hamgyŏng province, and the southern regions were the worst infected areas among the eight provinces that were struck by epidemic outbreaks. However, the quantitative results in this chapter still need further support from qualitative studies. Thus, in the following chapters, I will turn to a series of case studies that collectively illuminate the pre-modern history of epidemics on the peninsula and the way in which the Chosŏn government responded to and attempted to manage epidemic outbreaks.

Chapter 2 Environment, Infectious Diseases, and the Course of the East Asian War of 1592-1598

The arrival of eight Japanese regiments on the southern coast of the Korean peninsula close to Japan in the warm spring months of 1592 heralded the outbreak of the East Asian War (also known as the Imjin War), which drew to a close in 1598 after a gruelling conflict that wreaked devastation on East Asia. After unifying Japan under his military and political control, Toyotomi Hideyoshi (1536-1598) launched this invasion with the ambition of conquering Korea and eventually Ming China. His forces, commanded by his daimyo, initially gained overwhelming success, occupying Hansŏng, the capital of Chosŏn, and later advancing to the northern borderlands of the Korean peninsula, where they posed a threat to Ming China. Their success, however, was constrained by reinforcements led by the Ming general Li Rusong 李如松 (1549-1598), who crossed the frozen Yalu River and attacked the Japanese armies from the north in the first month of 1593. More accustomed to the cold Korean climate and more suitably dressed than the Japanese invaders, the Ming forces were able to recapture significant cities such as P'yŏngyang, but their cavalry horses soon became infected by equine plague and the soldiers began to exhibit symptoms of infectious diseases. Before long, epidemics were rampant to the south in the capital with unexpected consequences for the course of the war.

Environmental conditions such as the weather and infectious diseases are important variables in military conflicts. Nevertheless, most historical narratives of the East Asian War have paid little attention to these factors, preferring instead to focus on battles, supply problems, and personalities. To remedy the gap, this study examines Toyotomi Hideyoshi's invasions of Chosŏn and analyses the outbreaks of wartime epidemics in the winter of 1592 and their influence on the direction of the war. Much of the current literature on the earlier period of the East Asian War pays particular attention to the course of negotiations between Ming China and Japan initiated from the eighth day of the third month of 1593 and the reasons for their collapse; however, I believe it is also

important to investigate the circumstances that prompted the initiation of the peace negotiations in the first place.¹ Significant events, cited as reasons for the Japanese retreat southwards from Seoul, include their defeat at the Battle of P’yöngyang from the sixth to eighth day of the first month in 1593 and supply problems after their success at the Battle of Pyökchegwan on the 27th day of 1593, which were compounded by the burning of Japanese provisions at the Yongsan warehouse in the third month of 1593. For the Ming troops, their defeat at Pyökchegwan resulted in low morale in subsequent battles, which created an openness for peace negotiations.² Other studies concentrate on the major personalities responsible for directing the war and the negotiations: Li Rusong, Katō Kiyomasa 加藤清正 (1562-1611), Konishi Yukinaga (小西行長, 1555-1600), and others.³ In contrast to these approaches, this study utilizes an environmental perspective to explain the transition period towards peace negotiations with particular focus on the environmental and health factors affecting ordinary soldiers and military animals.

I begin by providing background information on the wartime environment and infections, as well as definitions of key terms. The second section discusses the physical

¹ Sajima, Akiko, ‘Hideyoshi’s View of Chosön Korea and Japan-Ming Negotiations’, in *The East Asian War, 1592-1598: International Relations, Violence, and Memory* (London and New York: Routledge, 2017 r.), 93–107; Kim Kyong-tae 김경태, ‘Imjin chönjaengi kanghwa kyosöp yön’gu 임진전쟁기 강화교섭 연구’ (Korean University, 2014); Chō Shihei 張子平, ‘Bunroku no eki ni okeru Nichimyō kōwa kōsho no kaishi: Banreki nijūnen Pyonyan kōwa kōsho no saikōsatsu 文祿の役における日明講和交渉の開始: 万曆二十年平壤講和交渉の再考察’, *Rekishu minzoku shiryōgaku kenkyū* 歴史民俗資料科学研究, no. 24 (March 2019): 45–80.

² Lee Jeongil 이정일, ‘Imjin Waeran ch’ogi Cho-Myōng kunsu hyōmnyōk ūi yangsang - Pyökchegwan chōnt’u chōnhu rül chungsim ūro 임진왜란 초기 조명 군사 협력의 양상 - 벽제관 전투 전후를 중심으로’, *Han’guksa hakpo* 한국사학보 75 (2019): 85–114; Wen Tinghai 文廷海, ‘Mingdai Bitiguan zhi yi ji Zhong Ri hetan kaoshi 明代碧蹄館之役及中日和談考實’, *Sichuan sifan daxue xuebao* 四川师范大学学报 3 (2001): 9–13.

³ Zhang Ziping 張子平, ‘Wanli yuan Chao zhanzheng chuqi Chao Ri hetan huodong de zaitantao-yi Wanli ershiyinian de ‘Longshan tanpan’wei zhongxin 万历援朝战争初期明日和谈活动的再探讨--以万历二十一年“龙山谈判”为中心’ (Fudan University Master thesis, 2011). There is a long list of research on the influence of main figures during the peace negotiations of the East Asian War. Sun Weiguo 孙卫国, ‘Wanli yuan Chao zhanzheng chuqi jinglüe Song Yingchang zhi dongzheng jiqi dui dongzheng lishi de shuxie 万历援朝战争初期经略宋应昌之东征及其对东征历史的书写’, *Shixue yuekan* 史学月刊 2 (2016): 39–50; Zhao Boyang 赵勃阳, ‘Wanli yuan Chao zhanzheng zhong Li Rusong de zhanhe celüe yanjiu 万历援朝战争中李如松的战和策略研究’ (Tianjin Normal University, 2016); Lee Gyewhang 이계황, ‘Kimjin waerangwa kanghwakyosöp -Tsushimaban kwa Konishi Yukinaga rül chungsim ūiro 임진왜란과 강화교섭-쓰시마번과 고니시 유키나가를 중심으로’, *Tongbuga munhwa yön’gu* 동북아문화연구 34 (2013.3): 85–110; Yamamoto Hirofumi 山本博文, ‘文祿の役における講和勅使の舟の調達をめぐる小西行長と島津忠恒’ Bunroku no eki ni okeru kōwa chokushi no fune no chōtatsu o meguru Konishi Yukinaga to Shimazu Tadatsune, *Haiji shi kenkyū* 海軍史研究 36 (1981.4): 77–82.

conditions of the Japanese soldiers, the Ming cavalry, and the Koreans in the Hansŏng region. Lastly, I show that despite efforts in medical treatment, the seriousness of the epidemics created a stalemate in the East Asian War. My approach emphasizes extreme climate and environmental degradation as key factors that triggered the outbreak of epidemics among the Japanese and Ming troops, and I argue that these outbreaks and the stalemate they produced were directly linked with the initiation of peace negotiations.

The wartime environment and infections

The environment in which warfare takes place is a powerful factor that can encourage the spread of epidemics and increase the total morbidity and mortality rates in a conflict. Discussion among scholars on the causes of casualties in war has generally concluded that epidemics, such as plagues, can result in a catastrophic mortality crisis.⁴ As in the East Asian War, vast areas of Europe were afflicted by epidemics during the Thirty Years' War, such as the bubonic plague that engulfed the northern Italian peninsula and spread north along the Rhine to Sweden. During the Crimean War (1853-1856), infectious diseases such as typhoid, dysentery, and cholera killed four times as many soldiers as on the battlefield.⁵ In more modern history, the flu pandemic of 1918-19 that swept the world during and after World War I killed an estimated 17 million people while the war itself killed an estimated 8.5 million combatants.⁶ In all these cases, the deaths caused by epidemics were higher than the fatalities resulting from warfare.

With regards to the East Asian War, however, only a few studies have made mention of wartime diseases. Miki Sakae (1972)'s pioneering book on the history of

⁴ Frank M Snowden, *Epidemics and Society: From the Black Death to the Present* (New Haven and London: Yale University Press, 2019); Rebecca M Seaman, ed., *Epidemics and War: The Impact of Disease and Major Conflicts in History* (Santa Barbara, California Denver, Colorado: ABC-CLIO, LLC, 2018); J. R. McNeill, *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620–1914*, New Approaches to the Americas (Cambridge: Cambridge University Press, 2010); Matthew Smallman Raynor and Andrew Cliff, *War Epidemics* (Oxford ; New York: Oxford University Press, 2004); William Hay Taliaferro, *Medicine and the War* (Books for Libraries Press, 1972).

⁵ Gabriel, Richard A. *Between Flesh and Steel: A History of Military Medicine From the Middle Ages to the War in Afghanistan* (Washington, DC, Potomac Books, 2013): 152-153.

⁶ Peter H. Wilson, *The Thirty Years War: A Sourcebook* (Macmillan International Higher Education, 2010), 107; Bernd Sebastian Kamps and Gustavo Reyes-Teran, *Influenza Report* (Flying Publisher, 2009).

disease and medicine in Korea from the Three Kingdoms era (57 B.C. – 668 A.D.) until the modern period includes a list of outbreaks of epidemics recorded in *sillok* but does not go further in analysing them.⁷ A work of military history compiled by the Imperial Japanese Army General Staff Office during the colonial period lists diseases in its appendix and details some common diseases among soldiers from the three countries during the conflict.⁸ In addition to these brief lists, Na investigates the causes and effects of some wartime diseases and Lo provides an overview of various diseases including the epidemics, noting that cold weather was a problem for all three armies.⁹ However, I will argue that the cold particularly afflicted the Japanese, who were less accustomed and prepared than the Ming and Chosŏn troops. I will also show how the cold influenced the course of the war and argue that it contributed towards a stalemate in the conflict in 1593.

This study seeks to fill a gap in the existing literature by highlighting the interaction among the environment, epidemics, and the progress of the war. Specifically, it demonstrates that the effect of environmental and physical conditions were underestimated by Hideyoshi, his daimyo, and the Ming generals, and that they have continued to be overlooked by scholars today.

Definition of key terms and methodology

The historical records that form the basis of this study use the word *yŏk* 疫 (Ch: *yi*; J: *eki*) to refer to epidemics. This term is similar in meaning to *wenbing* 瘟病, which according to Hanson's study on epidemics in Chinese medicine is an 'indigenous Chinese concept that encompassed a range of illnesses from the common cold and

⁷ Miki Sakae 三木栄, *Chōsen ihakushi oyobi shippeishi* 朝鮮醫學史及疾病史 (Tōkyō: Ishiyaku shuppan, 1972).

⁸ Sanbō honbu 參謀本部, *Nihonsenshi: Chōsenyaku* 日本戰史：朝鮮役 (Japan: Kaikōsha, 1924).

⁹ One study specializes the infectious diseases among the Chosŏn's naval forces based mostly on Yi Sunsin's records, arguing that the enclosed air of the famous Turtle Boats could worsen the incidence of epidemics. Na Seunghak, 나승학, 'Imjin waeran ki Chosŏn sukun chinyōng chōnyōmbyōng ūi palsaeng silt'aewa yōnghyang' 임진왜란기 조선 수군 진영 전염병의 발생 실태와 영향, *Kunsa yŏn'gu* 군사연구 144 (2017): 57–81. Lo Leehsin 羅麗馨, *Shiji shiji qian de Ri Han guanxi yu xianghu renshi* 十九世紀前的日韓關係與相互認識 (Taipei: Huayi xueshu chubanshe 華藝學術出版, 2020), 517–44; Lo Lee-hsin 羅麗馨, 'Fengchen Xiuji qinlüe Chaoxian: Ri, Chao, Ming sango junzhong zhi jiyi, qingsou yu tongxun' 豐臣秀吉侵略朝鮮：日、朝、明三國軍中之疾疫、情蒐與通訊', *Guoli zhengzhi daxue lishi xuebao* 國立政治大學歷史學報 47 (May 2017): 117–58.

respiratory illness to high fevers and epidemic diseases.’¹⁰ The fact that *yōk* refers to different types of infectious diseases makes it difficult to judge what specific type of epidemic or disease appears in a record. Using the clues presented by descriptions of contagious symptoms, this study proposes the use of the term ‘war epidemics’ to describe various wartime infectious diseases.

Despite modern developments, diseases spread in a similar way today as they did in ancient times, so this study adopts the terminology of modern epidemiology. To examine historical records on epidemics, I have applied the generally accepted model of a three-element mechanism of an epidemic: pathogen, transmission, and lack of immunity. Generally, ‘epidemics occur when an agent and susceptible hosts are present in adequate numbers, and the agent can be effectively conveyed from a source to the susceptible hosts.’¹¹ Utilizing these key terms and the methods of epidemiology, this study employs a close observation of diseases, in particular war epidemics, as a means of reconsidering the influence of the environment on the course of the East Asian War.

The effect of climate on the Japanese army

Differences in climate played a decisive role in the effectiveness of Japanese soldiers in combat. Hideyoshi’s troops mainly came from Kyūshū and Shikoku (32° to 33° north latitude), which lie in a humid, subtropical zone occupying roughly the same latitude as Cheju Island (33° north), just south of the southernmost tip of the Korean peninsula. The Korean climate is part maritime and part continental and not tempered by the mild maritime climate that the Japanese islands enjoy. For the Japanese forces moving northwards from spring through summer, they would have been accompanied by prevailing warm south to north winds, but come fall and winter, they would have faced north to south winds coming across north China and southern Siberia. At the same time, they were climbing a latitudinal gradient from 32° north to 40° north or roughly

¹⁰ Marta E. Hanson, *Speaking of Epidemics in Chinese Medicine: Disease and the Geographic Imagination in Late Imperial China* (London and New York: Routledge, 2011), 10.

¹¹ *Principles of Epidemiology in Public Health Practice, Third Edition* (Atlanta, Georgia: Centers for Disease Control and Prevention, 2012), 1–72.

from Kyushu to Aomori. In short, the Korean winter became one of the most challenging elements for the Japanese forces as they progressed northwards on the peninsula.

The first troops dispatched by Hideyoshi, consisting of eight contingents that landed on the Korean peninsula in the fourth month of 1592, faced many difficulties in adapting to the Korean climate even before the onset of winter.¹² One record describes how dysentery broke out that summer following heavy overnight rains, though the cause of the outbreak is not clearly stated. In the ninth month of 1592, Hideyoshi's foster son, Hashiba Hidekatsu 羽柴秀勝 (1568-1592), fell ill on Kōje Island, because he had not been able to properly acclimatize.¹³ Another general, Kobayakawa Takakage 小早川隆景 (1533-1597), who had been coughing since the early months of winter, was granted permission by Hideyoshi to return home out of consideration for his advanced years.¹⁴

In the ninth month, a few soldiers returned to Japan but the majority remained on the peninsula where they experienced disease, exhaustion, and death during the winter of 1592. Winter came early in the ninth month with one diary recording that 'when an extremely cold wind blows, you know that winter is coming.'¹⁵ Snow fell heavily early in the tenth month covering the valleys and peaks, and the rivers froze over. The snow reached a height of six *shaku* 尺 (about 2 metres), while the ice was estimated to be five *shaku* (about 1.7 metres) thick.¹⁶ In one record, Katō Kiyomasa describes the cold wind cutting through his flesh and bones and the exhaustion of his soldiers, who were unable

¹² Months follow the lunar calendar, as recorded in the primary sources. As the lunar New Year falls in February, lunar months are several weeks later than their equivalent in the Gregorian calendar. Shimose Yorinao 下瀬頼直, *Chōsen tokai nikki* 朝鮮渡海日記, (Tōkyō: Bōchōshidankai 防長史談会, 1934): 6. Day seven of the seventh month 1592.

¹³ Sanbō honbu, *Nihoneki: Chōsenyaku*, 1924, 92. Shimose 1934, 1592/7/7.

¹⁴ Tōkyō Teikoku Daigaku Bungakubu Shiryōhensan Gakari 東京帝国大學文學部史料編纂掛 ed. *Kobayakawake monjo* 小早川家文書. Vol. 11 in *Dai Nihon komonjo: Ie wake* 大日本古文書: 家わけ (Tōkyō: Tōkyō Teikoku Daigaku, 1927). No. 349, Hideyoshi's letter.

¹⁵ Shimose, *Chōsen tokai nikki*. Day two of the ninth month 1592.

¹⁶ Kitajima Manji, 北島万次, *Toyotomi Hideyoshi Chōsen shiryaku kankei shiryō shūsei* 豊臣秀吉朝鮮侵略関係史料集成, 3 (Japan: Heibonsha, 2017), vol. 1, 885. Shimose, *Chōsen tokai nikki*, 1934, 1592.10.28, 1593.11.2-3, 1593.11.13-16.

to feel their hands and feet.¹⁷ The record of Shimose Yorinao 下瀨頼直 (1565-1642) bears witness to many deaths,¹⁸ while many Koreans also perished due to the cold weather and starvation.¹⁹

One reason for the tribulations experienced by the Japanese forces in the winter of 1592 was their failure to secure adequate supplies of wood and coal to heat their tents. Their exposure to the bitter cold coincided with intense fighting in the Battle of Kilchu Changdök Mountain (吉州長徳山戰役) on the fifteenth day of the eleventh month of 1592. In this battle, the provincial military commanders of Northern Hamgyöng Province (*Hamgyöngbuk-do u'pyöngsa* 咸鏡北道右兵使) surrounded the Japanese troops led by General Katō at Kilchu fortress, thus preventing them from going out to cut firewood. It snowed that night and Katō's soldiers were too severely afflicted by frostbite to fight. They attempted to withdraw, but were overwhelmed by a Korean ambush.²⁰

Unaccustomed and unprepared for the cold weather, frostbite became a serious problem for the Japanese daimyo and their armies. Following the capture of the Japanese fortress at Kilchu by Chosŏn forces, carpenters began work on building another fortress, but after a hundred days of exposure to the cold weather, they became exhausted with suppurating sores on their exposed fingers and toes. Many of the labourers and boatmen froze to death, thus delaying the construction.²¹

Frostbite might have been avoided if the expedition had been equipped with warm clothes and other protective measures, but Hideyoshi failed to foresee such difficult conditions. When winter arrived, his troops had only the light kit in which they had travelled from Japan in the spring of 1592, as this had been considered preferable for the

¹⁷ Kitajima 2017, 2: 39-41.

¹⁸ Shimose Yorinao was a vassal of Yoshimi Motoyori 吉見元頼 (1574-1594), who served in the army led by Mōri Terumoto 毛利輝元 (1553-1625). See also Shimose (1934, 1592.11.11).

¹⁹ *Sōnjo sillok* 33: 2A (1592.12.2).

²⁰ Kitajima 2017, Vol. 1: 887-908.

²¹ Kitajima Manji, 2017, vols 2, 44. Yoshino Jingozaemon 吉野甚五左衛門, '吉野甚五左衛門覺書' Yoshino Jingozaemon oboegaki, in 続群書類從 *Zoku Gunsho Ruijū*, vol. 20 (Tokyo, 1923-1928), 386. For more records, see also Lo, 'Fengchen Xiuji qinlüe Chaoxian: Ri, Chao, Ming sanguo junzhong zhi jiyi, qingsou yu tongxun', 2017, 121-22.

sea voyage to the Korean peninsula and their long march northwards. According to a Ming eyewitness, ‘the soldiers wore no armour; they wore sleeveless calico jackets and short trousers regardless of the season, and moved very quickly.’²² There is no doubt that light clothing enabled them to move quickly in suitable weather, consistent with the aggressive Japanese style of sword fighting in hand-to-hand combat, but such attire was totally inappropriate for the Korean winter. It was difficult for the Japanese troops to obtain warm clothes and footwear in Korea by purchase or plunder, as Chosŏn Korea had suffered a poor cotton harvest and such items were in short supply. Although they placed straw over the ice to prevent the horses and troops from slipping, many soldiers lost toes to frostbite as they made their way through deep snow in straw sandals that provided no protection from the cold or wet along the southern coast and into the northern regions of the Korean peninsula.²³ With swollen hands and feet, many became sick and even unrecognizable, with one source comparing their fragile appearance to that of puppets.²⁴ Another record indicates that more than half of the boatmen died.²⁵

There is no doubt that such conditions contributed to the success of the Ming forces in driving back the Japanese troops to Hansŏng. The inadequacy of their preparations and their inability to adapt to the cold winter combined with logistical pressures to worsen the situation of the soldiers. Faced with the severity of these challenges, the Japanese general Konishi Yukinaga decided to abandon his sick soldiers and withdrew to the Hansŏng region. Under normal circumstances the journey from P’yŏngyang to Hansŏng would have taken a week, but the retreat took ten days due to the bad weather, especially the heavy snowfall.²⁶

In comparison, the Ming troops had been better prepared before their departure for the Korean peninsula. Military manuals from the Ming dynasty explain that frostbite was a common condition among soldiers exposed to winter battles, and it is likely that

²² Zhuge Yuansheng 諸葛元聲, ‘Liangchao Pingranglu 兩朝平壤錄’, in *Renchen zhi yi shiliao huiji*(Xia) 壬辰之役史料匯輯 (下) (Beijing: Quanguo tushuguan wenxian suowei fuzhi zhongxin chubanshan 全國圖書館文獻縮微復制中心出版, 1990), 7. 戰士身無甲、冬夏一花布衫、下短褲, 輕捷如飛

²³ Lo, 2017, 121.

²⁴ Yoshino Jingozaemon, ‘Yoshino Jingozaemon oboegaki’, 1923-1928, 386.

²⁵ Sanbō honbu, *Nihoneki: Chōsenyaku*, 1924, 95-6. 高麗へ召連候船頭かこ共相煩過半死候

²⁶ Yoshino Jingozaemon, ‘Yoshino Jingozaemon oboegaki’, 1923-1928, 386.

the experienced Ming general Li Rusong, who had lived in Liaodong, the northeast region of the Ming empire, understood its severity along with the related condition of hypothermia.²⁷ Therefore, most of his soldiers had prepared both straw sandals and shoes in their marching kits to protect their ‘energy channels’ (*luo* 絡); they had also prepared enough cooked dry food for five days before entering the battlefield.²⁸ Li’s troops wore winter clothes when they crossed the Yalu River into Korea on the fourth day of the first month in 1593, but despite this the soldiers still lacked sufficiently warm clothes and shoes. The Ming emperor expressed concern for the state of his armies and offered extra payments to buy shoes, socks, and even boots.²⁹ On one occasion, Li Rusong informed the Ming emperor about his soldiers’ sufferings following days of continuous spring rain:

The troops climbed the mountains and fought bravely in several bloody battles. Wearing wet, muddy shoes and rotting socks, they were almost barefoot. Our officers begged to use the official budget to buy them boots so that they could march further ... Every soldier marched more than 2,000 *li* to assist this vassal state [Chosŏn]. They said that their shoes and socks were worn out, but they could not find anywhere to buy replacements.³⁰

The emperor granted permission to use the budget originally allocated for horses to buy shoes, and the central camp delivered them to each base. These events suggest that the Ming troops were able to prepare for and respond to the cold much more efficiently than the Japanese.

With the Japanese suffering from a lack of warm clothes and shoes, the odds swung in favour of their opponents. The Chosŏn and Ming generals were well aware of

²⁷ According to the Ming general Wang Minghe’s military manuscript *Dengtān bijiu* 登壇必究 (1594, 226), written around the same time as the East Asian War, frostbite was recognized as a common disease among soldiers. It states that “soldiers crossing the water in winter will suffer from biting winds and snow and frostbite. Hands and feet and chilblains on the face bleed [...] More severe than frostbite would be hypothermia, which is fatal and listed as one of the five main deadly diseases.”

²⁸ “Energy channel” is a term used in traditional Chinese medicine and forms the basis of the technique of acupuncture. Yingchang Song, 宋應昌, *Jinglue fuguo yaobian* 經略復國要編 (Taipei: Taiwan xuesheng shuju 臺灣學生書局, 1986), 193. 每兵多備草鞋, 但今寒凍快鞋護絡之類, 聽其自便; 軍兵乾糧, 炒秒務足五日之用

²⁹ Song 1986, 193.

³⁰ Song 1986, 534.

their enemy's plight, and they believed they had a good opportunity to bring the war to a close by the end of winter.³¹ They were also concerned that the Japanese soldiers might become accustomed to the harsh climate.³² Having made preparations for the cold winter, Li Rusong's cavalry rushed to surround Yukinaga's troops at the fortress of P'yongyang on the sixth day of the first month of 1593 and were victorious in the Battle of P'yongyang on the seventeenth day.

Effects of the equine plague and epidemics on the Ming troops

Although the weakened state of the Japanese forces created an opportunity for Li Rusong to press home his advantage and end the war—a strategy also welcomed by the Chosŏn court—the joint armies failed to capitalize on their success and were defeated in the Battle of Pyŏkchegwan.³³ Previous studies have attributed this failure to overoptimism by the Ming generals, a characterization mainly based on comments recorded in *Mingshi* (History of the Ming Dynasty) that Li Rusong was defeated because he underestimated his enemies after several consecutive victories and believed erroneous information that Hideyoshi's daimyo had withdrawn to Hansŏng.³⁴ Some studies also suggest the presence of internal discord between the Ming armies from the south and the north regarding the distribution of rewards following the victory at P'yongyang.³⁵ The following examines physical and environmental factors to explain this critical turning point. Physical and environmental factors encouraged both sides to engage in peace negotiations in the early months of 1593.

One major factor was the exhaustion experienced by Li Rusong's troops who had been engaged in continuous combat from early in the first month of 1593. After crossing

³¹ Song 1986, 329 and 284.

³² There is little evidence that the Japanese became accustomed to the cold. Later historical records show that Japanese soldiers continued to suffer diseases related to the cold throughout the war with boatmen freezing to death on the last day of the eleventh month in 1597. See also Chŏsen Nichinichiki Kenkyūkai, 2000: 61. *Sŏnjo sillok*32: 11B (1592/11/15).

³³ *Sŏnjo sillok*35: 29A (1593/2/17).

³⁴ Wen Tinghai, 文廷海, 'Mingdai Bitiguan zhi yi ji Zhong Ri hetan kaoshi' 明代碧蹄馆之役及中日和谈考实, *Sichuan sifan daxue xuebao* 四川师范大学学报 3 (2001): 9–13; Sun Weiguo, 孙卫国, 'Li Rusong zhi dongzheng jiqi houyi liuyu Chaoxian kao' 李如松之东征及其后裔流寓朝鲜考, *Renwen zazhi* 人文杂志 1 (2014): 78–88; Zhao, 'Wanli yuan Chao zhanzheng Zhong Li Rusong de zhanhe celue yanjiu', 16–20.

³⁵ Sun 2014, 84–85.

the Yalu River, the Ming cavalry and infantry besieged Yukinaga at P'yŏngyang fortress and fought at the Battle of P'yŏngyang. According to Song Yingchang (宋應昌, 1536-1606), the Ming soldiers fought relentlessly and suffered numerous injuries and deaths in the first few months of 1593.

The generals and soldiers fighting in the east have had to lie down [to sleep] on the ice and snow every day. They fought fiercely in the bloody battles. The victory at P'yŏngyang was not gained because the Japanese were easy adversaries, but because our generals and soldiers spared no efforts in the fight. In recent days, they pursued the Japanese thousands of miles and engaged in a series of battles. Kaesŏng and Wangkyŏng [Hansŏng] report that they have taken enemy captives again. Yet our soldiers have been unable to dismount from their horses and have been unable to eat or drink. They are completely exhausted in both body and spirit.³⁶

Another factor was the continuous rain that hampered the movement of horses, which were essential for the cavalry and transportation of both armies. It had rained since late in the first month of 1593, making parts of Hansŏng treacherous for horse riding. As the ice melted and the mud deepened, the horses could not move, and both people and horses trampled on each other.³⁷ In the following month, the situation deteriorated further and relentless rain brought the Imjin River close to bursting its banks. The horses' coats were drenched and the mud reached the height of their bellies.³⁸ Floods destroyed the bridge that provided the only route for the Japanese troops to retreat, so they had to rebuild it.³⁹ Both soldiers and horses had to sleep on the ice and snow and lie on the wet mud when it rained, thus worsening their physical condition.

The Ming army also suffered from a shortage of food for soldiers and fodder for their horses, as Yukinaga's troops burnt the surrounding grass and crops in the areas that

³⁶ Song 1986, 494.

³⁷ Kitajima Manji, 2017, vols 2, 78-85. 再造藩邦志. 提督所領皆北騎、無火器、只持短劍...天兵之精銳多死、天且大雨、近王京平地多稻畦、冰解泥深、馬不得騁、人馬相蹂踐、

³⁸ Song 1986, 497.

³⁹ Yoshino Jingozaemon, 'Yoshino Jingozaemon oboegaki', 1923-1928, 386.

they passed through near Kaesŏng city. According to Song Yingchang in a report on the second day of the second month in 1593:

We fought with the Japanese forces at Paekt'apkyo, but they withdrew. We spared no efforts in fighting the whole day, and the people and horses were so exhausted they could not take another step. They had travelled 150 miles a day to pursue and attack [...] The Japanese soldiers engaged in unbridled plunder of the local people and burnt all their crops. Our armies had nowhere to regain their strength and no grass to feed their horses. We had not prepared for this.⁴⁰

Such reports provide evidence that the Ming army was suffering from the cold, the wet, from hunger and exhaustion, and that their logistic lines were overextended when they took part in the Battle of Pyŏkchegwan and subsequent skirmishes at the end of the first month in 1593. This contrasts starkly with the account in *Mingshi* that attributes their defeat merely to overoptimism and miscalculation by Li Rusong.

Although these factors undeniably contributed to the deteriorating health of the horses, it was ultimately an epidemic that led to their deaths in such numbers as to cripple the Ming war effort. After their defeat at the Battle of Pyŏkchegwan, the Ming cavalry regiments crossed the Imjin River and were stationed on the eastern bank. The Chosŏn minister Li Hangbok (李恒福, 1566-1618) records that 'the great army came to the Imjin [River] and had no food for two days, so countless horses died.' Yang Yuan (楊元, ?-1598), the second-ranked general of the Ming forces, also attributed their deaths to lack of fodder, which led him to order his forces to retreat. Based on these reports of sudden and widespread deaths, however, King Sŏnjo (1567-1608) of Chosŏn concluded that they must have been due to an outbreak of equine plague.⁴¹

Sŏnjo's conclusion is plausible, since an epidemic can spread quickly and cause a large number of concurrent deaths. These horses had experienced many difficulties on their journey to the Korean peninsula from the Liaodong area of Ming, crossing rivers,

⁴⁰ Kitajima Manji, 2017, vols 2, 90-1.

⁴¹ *Sŏnjo sillok* 35: 29A (1593/2/17).

making their way through deep mud, taking part in several battles, and being exposed to the continuous cold rain. These conditions, combined with other unsanitary factors such as puddles of rainwater around corpses, would have increased their susceptibility to infection, the most likely candidate being equine influenza. This outbreak in 1593 had a devastating effect on the Ming cavalry, with a letter by Song Yingchang recording that thousands of Ming military horses died and the *Sŏnjo sillok* stating that the number of deaths reached twelve thousand. Regardless of the true number, there is no doubt that this outbreak of equine plague substantially weakened Li Rusong's forces.⁴²

While the equine plague was spreading, the extreme environmental conditions also contributed to fatigue and a deterioration in the health of the Ming soldiers. Currently, two main strains of the virus responsible for equine influenza are known to infect humans: equine-1 and equine-2.⁴³ Thus, it is possible that people may have become infected by equine influenza during the Imjin War. The exhausted and starving soldiers would have been too weak to survive any kind of inflammation or secondary infection. When the rainy season continued in the second month of 1593, the large Ming contingent had to camp in muddy fields near Kaesŏng accompanied by their horses. To make matters worse, shipments of both fodder for the horses and other military provisions were delayed.⁴⁴ As a result, the starving soldiers resorted to eating horse flesh, believing the meat would protect them from the cold and unaware that it was contaminated and could cause illness. Their drinking water was also highly likely to be contaminated with pathogens originating from the dead bodies of horses. Regardless of the etiology, an epidemic among the soldiers slowed their attack and reduced their ability to fight, so Li Rusong was forced to move his troops back to Kaesŏng to recuperate during the rainy period in the second month of 1593.⁴⁵

The outbreaks of equine plague and epidemics among the soldiers significantly weakened the military strength of the Ming expeditionary forces. As Song Yingchang

⁴² Song Yingchang (1986, 497). *Sŏnjo sillok* 35:6A (1593/2/5).

⁴³ "Equine Influenza". *www.aaep.org*. Archived from the original on 2016-03-10. Retrieved 2020. 11. 5; "2. How the Virus Spread from Poultry to People and Pigs". *Highly Pathogenic Avian Influenza Virus HPAI H7N7 - 2003 Epidemic in Europe*. Pig Disease Information Centre U.K. 2010. Retrieved 2020. 11. 5.

⁴⁴ Song 1986, 497.

⁴⁵ Song 1986, 493; Kitajima 2017, 2: 85-6.

notes, the Ming soldiers did not enjoy favourable climatic, geographical, or physical health conditions at this time, which were the three primary elements in Chinese military ideology.⁴⁶ The adverse circumstances described in this section arguably contributed towards their failure at the Battle of Pyökcwegwan and the Ming empire's subsequent desire to initiate peace negotiations.

Epidemics in the Hansöng area

The plague that had originally broken out among the Ming horses soon spread not only to the Ming soldiers but also to the Japanese troops and the local populace of the Hansöng area, with one Japanese diary suggesting that the epidemic began during their stay at Hansöng in 1593. After his defeat at the battle of P'yöngyang on the seventeenth day of the first month, Yukinaga retreated to Hansöng, while the other four daimyo joined forces to move there. The family records of Nabeshima Naoshige (鍋島直茂, 1538-1618) note that after their withdrawal to Hansöng nearly thirty family members died because of the cold weather and the disgusting smell in the capital.⁴⁷

A report from Yi Sunsin confirms that Japanese soldiers were infected by an epidemic as early as the first month. He states that, 'Countless numbers of Japanese suffered from serious sword wounds, which claimed many lives. They regularly torched the surrounding areas. The Japanese general leading the force also died on the battlefield, while groups of Japanese lamented his death. From around the end of the first month, many enemy camps were struck by the epidemic, which caused continuous deaths.' While this was a tragedy for the Japanese, it raised the spirits of the Chosön forces and gave them encouragement to continue the fight.⁴⁸

By combining the information from these records, we are able to gain a general picture of the situation concerning infections among the Japanese troops in Hansöng.

⁴⁶ Song 1986, 497.

⁴⁷ Lo, 'Fengchen Xiuji qinlüe Chaoxian: Ri, Chao, Ming sango junzhongzhi jiyi, qingsouyu tongxun', 125. Saga Kenritsu Toshokan 佐賀県立図書館 ed. Naoshige kōfu 直茂公譜. Vol.8 of Sagaken kinsei shiryō 佐賀県近世史料 (Saga: Saga Kenritsu Toshokan, 1993): 197.

⁴⁸ Kitajima Manji, 2017, vols 2, 160. Kitajima 2017, 2: 160; Yi Sunsin, 李舜臣, *Imjin changch'o* 壬辰狀草, collected in *Yi Ch'ungmugong chönsö* 李忠武公全書. 1795, vol. 3, 1593/4/6.

An airborne infection may have been the direct cause of the epidemic, while the winter cold and lack of food would have acted as catalysts in weakening their immune systems. The ‘disgusting smell’ may have been due to the Japanese setting fire to their surroundings during battles, or it may refer to the stench given off by abandoned and rotting corpses. For example, Zetaku Meirin (是琢明琳, 1561-1620), a monk serving under Nabeshima Naoshige, describes how the corpses ‘reeked to high heaven’ during their stay in Hansǒng late in the second month.⁴⁹

The epidemics that had broken out during the winter spread quickly as temperatures warmed, leading to continuous outbreaks in the spring of 1593. When the weather became warmer in the third and fourth months of 1593, ‘[...] the stench became even fouler. Upon breathing this smell, everyone fell ill and died.’⁵⁰ This description suggests an unsanitary environment and the airborne transmission of bacteria.

The entire Hansǒng region was severely struck by epidemics at this time. When the Ming and Chosǒn armies entered the capital after the Japanese withdrawal from Hansǒng on the nineteenth day of the fourth month, they found dying and sick people abandoned in the streets, along with piles of corpses.

Only one or two out of a hundred survived in the town and all the survivors looked hungry and thin, exhausted and dying, like ghosts. The dead bodies of people and horses were piled on top of each other. A foul smell pervaded the whole town and people had to cover their noses when they went outside. White bones were piled up on the outskirts as well as in the town. Both public and private buildings were empty with only ashes and rubble remaining.⁵¹

Those who remained were mainly sick and starving Japanese soldiers, whom Yukinaga had been forced to leave behind when he withdrew from Hansǒng, fearing he would

⁴⁹ Zetaku Meirin 是琢明琳. 1960. ‘Meirin Chōsenyaku jugun nikki 明琳朝鮮役從軍日記’, in 佐賀県史料集成 *Saga ken shiryō shūsei* (Saga: Saga kenritsu toshokan 佐賀県立図書館), Vol 5, 354. Lo, ‘Fengchen Xiuji qinlüe Chaoxian: Ri, Chao, Ming sanguo junzhongzhi jiyi, qingsouyu tongxun’, 124.

⁵⁰ Lo, ‘Fengchen Xiuji qinlüe Chaoxian: Ri, Chao, Ming sanguo junzhongzhi jiyi, qingsouyu tongxun’, 125.

⁵¹ *Sōnjo sujōng sillok* 27: 9B (1593.4.1).

lose yet more soldiers to disease.⁵² Retreat thus became a strategy for avoiding further losses in the face of an epidemic.

Local people living nearby were also affected, with infection spreading rapidly within households. The wartime diaries of O Hūimun (吳希文 1539-1613), a member of an elite family, provide a typical example. After losing their home to the invading Japanese, his family had to adopt a transient lifestyle and often suffered from food shortages and disease. In the winter of 1592-93, his entire family showed symptoms of infection: his younger brother and his wife were afflicted with scabies, which became more severe early in the first month of 1593; Hūimun's son and wife experienced chest problems and had no appetite; and their elderly *nobi* died after swellings on his body left him unable to move or eat. Shortly afterwards, Hūimun's mother developed a serious headache and lost her appetite, while Hūimun experienced night sweats and coughed constantly throughout the day. From their shared symptoms of swelling and scabies, Hūimun realized it was a contagious disease and referred to it as the red plague.⁵³

Another diary records a string of infections in the town of Kanghwa-gun, close to the Hansŏng area. A friend of the author died from an epidemic in the second month and another friend became sick during the third month.⁵⁴ A facility was arranged specifically to house infected children, indicating a large number of cases among the young.⁵⁵ As with its spread among the military, the weather conditions, specifically the relentless rain, encouraged the spread of the epidemic among the local population, with Hansŏng and surrounding areas experiencing a sharp increase in deaths during late winter and early spring.⁵⁶

⁵² Song Yingchang also mentions that sick Japanese soldiers were left in Hansŏng. See Song (1986, 659).

⁵³ O hūimun 吳希文, *Swaemirok* 瑣尾錄, 1601. Jangseokgak Thirteenth day of the first month, 1593.

⁵⁴ Kim Chong, 金宗, *Imjin illok* 壬辰日錄, 1592-1593. Accessed May 5th, <https://diary.ugyo.net/>. 1592/2/28, 1593.3.21.

⁵⁵ Kim, *Imjin ilrŏk*. 1592-3, 1593/3/12.

⁵⁶ Kim Sŏng-u 김성우, 'Imjin waeran kwa 1593-1594 nyŏn kyegap taegigŭn - Kyŏngsang-do Sŏngju Tosesun chiban ūl chungsim ūro 임진왜란과 1593-1594 년 계갑대기근 -경상도 성주 도세순 집안을 중심으로', *Han'guksa yŏn'gu* 한국사연구 188 (2020.3): 217-56.

In addition to direct infection from equine influenza, there are two main hypotheses regarding the nature of the contagious diseases experienced at this time. The first possibility is dysentery, as it is highly likely that rotting corpses would have contaminated the drinking water, and there is no doubt that the starving Japanese soldiers would have drunk and eaten whatever they could access, because their provisions were running out.⁵⁷ The second hypothesis is louse-borne typhus fever, which was one of the most commonly encountered infectious diseases during sixteenth-century European warfare.⁵⁸ It is equally likely that various epidemics, such as equine influenza, dysentery, airborne and louse-borne typhus, may have broken out at the same time.

Preventative measures against infection

The war epidemics claimed the lives of many Ming and Japanese soldiers and various measures were taken to try to minimize their spread. Hideyoshi dispatched doctors and monks to the Korean peninsula, while Ming generals with the assistance of the Chosŏn court attempted to treat the infections with herbal medicines.⁵⁹ The differences in these methods of treatment arose from different perspectives on illnesses and the availability of medical supplies.

The employment of monks and physicians was one of the main methods used by the Japanese to treat diseases, but they were unable to handle the sudden outbreak of wartime epidemics. For example, the troops under Gotō Sumiharu (五島純玄, 1562-1594) were divided into three levels comprising 120 military soldiers, 518 other staff

⁵⁷ Sanbō honbu, *Nihonsenshi: Chōsenyaku*, 1924, 93. 疫病ノ流行セシハ事實ナリ然レトモ其大流行ヲ見サリシハ倏幸ナリキ松井物語ニ云フ殊に王城在陣の諸勢兵糧盡きて饑渴に及び其上瘡疫病はやり、數人死去雲々。Kawaguchi Choju 川口長孺, 'Seikan Yiryaku' 征韓偉略, in *Renchen zhi yi shiliao huiji(Xia)* 壬辰之役史料匯輯 (下) (Beijing: Quanguo tushuguan wenxian weisuo fuzhi zhongxin chuban 全國圖書館文獻縮微復制中心出版, 1990), 613-4.

⁵⁸ Smallman Raynor and Cliff, *War Epidemics*, 37–38.

⁵⁹ According to *Jixiao xinshu* (Qi 1983, 510), a military handbook widely used in the Ming dynasty, every camp was supposed to have two doctors and one veterinarian for every three thousand soldiers. However, no record has yet been found to indicate that doctors or veterinarians accompanied the Ming armies to the Korean peninsula. Instead, it appears that the Ming authorities sent medicines and generals with some basic knowledge of medicine, as will be discussed later in the text. See also Lo, 'Fengchenxiuji qinlue chaoxian: ri, chao, ming sanguo junzhongzhi jiyi, qingsouyu tongxun', 2017, 130.

such as boatmen and craftsmen, and 67 officers, among whom only five were monks, physicians, and scribes. The remainder were generals and mounted troops.⁶⁰ At the time, monks possessed a certain amount of medical knowledge required to treat patients, as medicine was taught as part of a Japanese Buddhist education.⁶¹ One example of such a medical practitioner was Kyōnen 慶念, a monk who served under Ōta Kazuyoshi (太田一吉, ?-1617) during the conflict. However, it was impossible for such a small number of people with medical training to take care of all the troops.⁶² It is likely that they had to prioritize the higher-ranking officers and neglect the lower ranks, regardless of the severity of their condition, and this policy probably contributed to the decision to abandon sick and injured soldiers during the withdrawal from Hansōng.⁶³ When Hideyoshi was informed of the difficulties facing his forces and their lack of medical treatment on the frontline, he dispatched twenty physicians along with other provisions on the twelfth day of the fourth month of 1593.⁶⁴ Descriptions of the aftermath of the epidemics are not well documented in the Japanese wartime records; the existing records, especially the daimyo family records, simply mention the deaths of soldiers but include little detail about the type of disease and any attempted treatment.⁶⁵

The Ming forces were better equipped to handle illness among their troops. The generals were concerned about their casualties and tried different methods to help the sick, such as handing out medicine and granting extra payments to enable them to buy pills. About 11,000 Ming soldiers were from the southern parts of China, so they were relatively unaccustomed to the Korean climate and had difficulty surviving the freezing cold.⁶⁶ Confronted with the extreme weather in 1593, even the soldiers from more northern regions succumbed, and the Ming army suffered an outbreak of pestilence at

⁶⁰ Sanbō honbu, *Nihoneki: Chōsenyaku*, 1924, 92. pendix 2. *Gotō Sumiharu tai henseihyō* (五島純玄隊編制表 Table showing the composition of Gotō Sumiharu's troops)

⁶¹ See more research on the relationship between Japanese Buddhism and medicine. Katja Triplett, *Buddhism and Medicine in Japan: A Topical Survey 500-1600 Ce of a Complex Relationship* (Boston: de Gruyter, 2020).

⁶² Lo, 'Fengchen Xiuji qinlüe Chaoxian: Ri, Chao, Ming sanguo junzhongzhi jiyi, qingsouyu tongxun', 125.

⁶³ *Sōnjo sujōng sillok* 27: 9B (1593/4/1).

⁶⁴ Kitajima Manji, 2017, vols 2, 181.

⁶⁵ Many of the Japanese sources relating to the East Asian War are daimyo family records, but by their very nature they focus on the elite and ignore the circumstances of ordinary soldiers. Instead, Korean and Chinese observers provide much of the information about the conditions faced by the Japanese troops, such as the unbearable smell, the piles of corpses, and the abandonment of sick soldiers.

⁶⁶ Yu Sōngnyong 柳成龍. *Tangjang sōch'ōp* 唐將書帖. 1594. Changsōgak Archives, <http://archive.aks.ac.kr>.

the first Battle of P'yŏngyang. The central commander subsequently allowed sick soldiers to rest and recuperate their strength and he granted them in total 65,000 *taels* of silver.⁶⁷ Aside from money to make and purchase pills, the Ming court also sent urgently needed medicine such as sage pills (*shengsanzi fang* 聖散子方, appeared from ca. AD 1100) and drinks for purifying toxins (*xiaoduyin* 消毒飲) at the time of the outbreak (Song 1986, 491-2).⁶⁸ Sage pills are also listed in the *Tongŭi pogam* 東醫寶鑑 ('Exemplar of Korean medicine,' 1613) as one of the main remedies used to treat epidemics and are praised for protecting both the young and the old from pestilence. Some of their herbal constituents are still used to treat diseases such as the common cold today. The so-called 'drinks for purifying toxins' were primarily aimed at the treatment of infected and painful wounds.⁶⁹ Given that some of their ingredients are still used as painkillers today, it is likely that they had a beneficial effect.

As an ally of the Ming forces, the Chosŏn court also took measures to alleviate their situation and minimize the spread of infection. The court was aware that epidemics became more severe in famine years, especially when they coincided with a warm spring. Worried that this pattern would hold true, King Sŏnjo dispatched the imperial physician Yi Konggi (李公沂), a skilled acupuncturist, to the battlefield at the end of the first month of 1593.⁷⁰ In accordance with his instructions, three remedies were offered to treat illnesses and injuries: 'clearing-the-heart pills' (*ch'ŏngsimwŏn* 清心元), thought to cure heart problems and remedy the dazed spirits caused by typhoid; a treatment for dysentery, malaria, and jaundice; and another for severe wounds.⁷¹ The herbs and ingredients in these medications were used to both treat

⁶⁷ A *tael* is a measurement of weight equivalent to approximately 37.5 grams. Song, 1986, 522.

⁶⁸ *Sage Pills* is a medical book edited by Su Shi 蘇軾 and Guo Wuchang 郭五常 in the Northern Song Dynasty around the year 1100. It includes one main prescription, along with a further 36 in the appendix and 27 in the supplementary appendix. These 64 prescriptions could be used for a range of ailments ranging from seasonal epidemics to internal medicine, obstetrics, pediatrics, and emergency medicine. The prescription for sage pills used several Chinese traditional herbs such as poria cocos (茯苓), Chinese herbaceous peony (芍藥), and radix bupleuri (柴胡), which also appear in Wang Minghe's military handbook (see footnote. 24).

⁶⁹ Hŏ Chun 許浚, *Tongŭi pogam* 東醫寶鑑, 1613. There are two traditional disinfection drinks in traditional Chinese medicine, one for treating infected wounds and another for smallpox. It is likely that the drinks in this case refer to the former.

⁷⁰ *Sŏnjo sillok* 34: 47B (1593/1/29)

⁷¹ *Sŏnjo sillok* 34: 47B (1594/1/2). See also the prescriptions for "clearing-the-heart pills" in Sŏ Myŏng'ŭng, 徐命膺,

the sick and control epidemics, although it is unclear to what extent they were effective. In addition, the Chosŏn court provided soldiers with alcohol and beef to boost their nutrition and morale.⁷² As noted previously, in addition to the medical and nutritional supplies, warm clothes and shoes were sent to the frontline to help protect soldiers against the cold.

It is likely that these supplies of medicine, food, and clothing helped to reduce the rate of infection, although they were often subject to delays due to administrative and transportation problems. For instance, when there was an outbreak of illness amongst the naval forces under his command, Admiral Yi Sunsin had to first report the severity of the infection to the Chosŏn court, after which the national medical centre would decide which herbal remedies to provide.⁷³ The alternative to waiting for the Chosŏn court to deliver medicine was for the Ming generals in the field to buy it themselves with the help of local officials. For example, Li Rusong used money allotted for buying horses to order 4,000 herbal packets per contingent from local physicians.⁷⁴

The methods used by the Japanese to treat war epidemics differed significantly from the approaches used by the Ming and Chosŏn leaders. There are two main reasons for these differences, and they are useful for understanding perceptions of illness and the history of East Asian medicine in the late sixteenth and early seventeenth centuries. First, the scarcity of reports related to Japanese war-time epidemics and medical treatment can be partly explained by the military mentality that deemed dying in warfare a great honour. Having become aware of this Japanese mentality after this long conflict, the Ming historian Zhuge Yuansheng (諸葛元聲) comments: ‘The Japanese are not afraid of death and consider dying of disease to be shameful while dying on the battlefield is an honour.’⁷⁵ As a result, Japanese writings on warfare tend to emphasize

Kosa sinsŏ 攷事新書, vol. 15, 1771. Kyujanggak Archive. Kyu 6770-v.7

⁷² Song, 522.

⁷³ NaSeunghak 나승학, ‘Imjin waeran’gi Chosŏn sugun chinyŏng chŏnyŏmbyŏng ūi palsaeng silt’aewa yŏnghyang’ 임진왜란기 조선 수군 진영 전염병의 발생 실태와 영향, *Kunsayŏn’gu* 군사연구 144 (2017): 65; Yi Sunsin, 李舜臣, *Imjin changch’o* 壬辰狀草, collected in *Yi Ch’ungmugong chŏnsŏ* 李忠武公全書, 1795, vol. 4.

⁷⁴ Song 490.

⁷⁵ Zhuge Yuansheng 諸葛元聲, ‘Liangchao Pingranglu 兩朝平壤錄’, in *Renchen zhi yi shiliao huiji*(Xia) 壬辰之役史料匯輯 (下) (Beijing: Quanguo tushuguan wenxian weisuo fuzhi zhongxin chuban 全國圖書館文獻縮微復制中心出版, 1990), 196.

military spirit and ignore matters of illness and its treatment. We have previously noted that Japanese medicine was rooted in Buddhist medical tradition and that monks accompanied the daimyo to the Korean peninsula. It is, however, clear that Hideyoshi underestimated the consequences of the cold climate and war epidemics, and that too few people with medical knowledge accompanied the invasion force to keep infections under control.

The second difference stemmed from the fact that Japan lagged behind both China and Korea in the field of medical knowledge. Whereas Japan was still using classic Chinese medical texts throughout the course of the East Asian War, both the Ming and Chosŏn forces were using more recently developed remedies for epidemics. Chinese culture had a well-developed history of medical formulas and *materia medica*, which had spread to the Chosŏn peninsula by the sixteenth century, whereas medical knowledge in Japan was still confined to a few specialists and monks. This might explain why Hideyoshi's daimyo brought back a number of Korean medical texts from the East Asian War.⁷⁶ For example, the attendant Japanese physician Manase Dōsan (曲直瀬道三, 1507-1594) asked Ukita Hideie (宇喜多秀家, 1573-1655) to bring back Chosŏn medical texts from the Korean peninsula. Dōsan was born in Chosŏn but lived and worked in Japan, where he later introduced the *Hyangyak chibsŏngbang* 鄉藥集成方 (The great collection of native Korean prescriptions).⁷⁷ According to Peter Kornicki, there is evidence that at least one copy of the medical handbook *Kugŭppang* 救急方 (Emergency prescriptions) reached Japan in the 1590s along with many other medical texts from Chinese and Korean authors, so we can conclude that these texts had a significant impact on Japanese medical knowledge from the 1590s onwards.⁷⁸

Based on fruitful medical developments in Ming China, military medicine became a significant component of military knowledge and was considered crucial for Ming

⁷⁶ Yi Jun-geol, 이준걸, *Chosŏn sŏjŏk Yilbon kyoryusa: Yilbon ūl Chosŏn sŏjŏk yaktalsa* 조선서적일본교류사: 일본의 조선서적약탈사 (Seoul: Hongikjae 弘益齋, 2012), 297.

⁷⁷ Ibid. 294.

⁷⁸ Peter Kornicki, 'Korean Books in Japan: From the 1590s to the End of the Edo Period', *Journal of the American Oriental Society* 133, no. 1 (2013): 88.

generals. Various medical schools prospered throughout the Ming empire, each exhibiting their own distinctive geographical characteristics for the treatment of epidemics, and this paved the way for the Ming generals to acquire medical knowledge and put it into practice.⁷⁹ For instance, a manuscript compiled by the Ming general Wang Minghe 王鳴鶴 includes a chapter on medicine that focuses primarily on epidemics and details some common prescriptions for remedies. It was later made into a simple booklet called *Junzhong yiyao* (軍中醫藥 Military medicine, K. *Kunjung ūiyak*), which became widely available in Chosŏn after the war.⁸⁰

Despite their different approaches and responses, both Chinese and Japanese troops were suffering from epidemics by the spring of 1593, and the Japanese soldiers in particular were falling victim to the cold Korean winter. Accordingly, the Ming emperor and Hideyoshi, unable to sustain their war efforts, moved to establish peace negotiations.

From stalemate to peace negotiations

As we have seen in the previous section, epidemics directly impacted the course of the war, accelerating its transition from the battlefield to peace negotiations via a period of stalemate. Compiled in the early seventeenth century by the late Ming-period historian Mao Ruizheng 茅瑞征, *Wanli Sandazheng kao* 萬曆三大征考 (*Examination of the three great wars in the Wanli period*) argues that several unfavourable conditions worked together to produce this stasis in the conflict after the Japanese defeat at P'yŏngyang, including health problems among the soldiers, the coastal climate, outbreaks of epidemics, and pressures on provisions.

Initially, our forces fought aggressively and were victorious at P'yŏngyang. They turned to fight at Kaesŏng with spirits so high they could break bamboo. The Chosŏn soldiers of Chŏlla province also reported victory [...] The defeat at Pyŏkchek was a great blow to morale.

⁷⁹ Hanson, 2011, 48.

⁸⁰ See also Wang Minghe 王鳴鶴, *Dengtān bijiu* 登壇必究, first printed in 1594, vol. 31.

The armies were stationed for a long period in a harsh environment where the sea air steamed and epidemics spread. They were in great need of rest [...] Stocks of provisions were running low and most of the soldiers developed malignant sores.⁸¹

Not being a work of environmental determinism, the *Wanli Sandazheng kao* also argues that the Ming wished to take advantage of Yukinaga's desire to negotiate to bring about Japan's subjugation through peace talks.⁸²

Both the Ming and their Japanese counterparts weighed the possible advantages and drawbacks of continuing their hostilities under adverse conditions and decided to take part in peace negotiations, thus leading the East Asian War into a new stage in the third month of 1593. Hideyoshi's initial invasion of Chosŏn had been launched in 1592, and the second invasion took place during 1597-1598. Throughout this seven-year period, peace negotiations were conducted for almost four years, from the third month of 1593 until the end of 1596. Of course, epidemics were not the only reason that brought the different sides to the negotiation table and kept them there for such a substantial period, but the role and significance of epidemics have been overlooked in the existing literature.

Other factors that brought about a stasis in the fighting and a transition to negotiations were two events that occurred directly before the initiation of peace talks: the Battle of Pyŏkchegwan and the Battle of Haengju, in which Chosŏn forces were victorious in the second month of 1593. These events demonstrate how quickly tactical and logistical factors were able to exacerbate the difficulties faced by the armies. Existing scholarship has extensively discussed the effect of shortages of rations on the armies, arguing that shortages left the Ming and Japanese commanders with peace negotiations as the only viable option.⁸³

⁸¹ Mao Ruizheng 茅瑞征, *Wanli sandazheng kao* 萬曆三大征考, in *Renchen zhi yi shiliao huiji* 壬辰之役史料彙輯, vol. 2, (Beijing: Quanguo tushuguan wenxian suowei fuzhi zhongxin chuban 全國圖書館文獻縮微復制中心出版, 1990): 217.

⁸² *Ibid.*, 220.

⁸³ Kim Kyŏng-t'ae, 김경태, 'Imjin chŏnjaeng ch'ogi ūi kunnyang munje wa kanghwa kyosŏp nonŭi' 임진전쟁 초기의 군량 문제와 강화교섭 논의, *Yŏksawa tamnon* 역사와 담론 70 (2014.4): 37-71; Ha Yiming, 'A Clash of Perceptions: Deceit in the Ming-Japan Negotiation During the Imjin War' (BA, Los Angeles, University of California, 2015): 13-4.

Both the Ming and the Japanese troops experienced food shortages early in the spring of 1593.⁸⁴ When the large Ming army entered the Korean peninsula, the logistics of supply became a major issue due to delays in transportation and the fact that Chosŏn was unable to offer sufficient supplies to meet Chinese demands. As noted previously, grass and crops were often burnt during warfare, which made the land inhospitable to horses. The lack of fodder for their horses caused a fall in morale among the Ming cavalry and hampered their fighting capability.⁸⁵ Similarly, Hideyoshi's daimyo faced a shortage of provisions from early in the last month of 1592.⁸⁶ Shimazu Yoshihiro (島津義弘, 1535-1619), who was with his father's troops in Kangwŏn-do, describes how the crops did not ripen that year and it was hard to find even the roots of vegetables.⁸⁷ When the contingent under the command of Yukinaga was defeated at the Battle of P'yŏngyang, the main factor in the decision to withdraw to Hansŏng in the first month was lack of provisions. According to Natsuka Masaie (長束正家, ?-1600), who was in charge of provisions, the Japanese soldiers at Hansŏng suffered from food shortages. Under increased pressure following the burning of their granaries at Yongsan, the Japanese daimyo sent an urgent message to Hideyoshi requesting extra provisions.⁸⁸ The Japanese camp at Pusan dispatched soldiers to assist the forces in Hansŏng, while provisions were sent from Nagoya Castle in Hizen province in Japan, whence the invasion force had originally been launched. The preparation and transportation of these provisions, however, took considerable time.⁸⁹

With hunger weakening immune systems, acting as a catalyst in the spread of

⁸⁴ Chen Shangsheng 陈尚胜, 'Renchen yu Wo zhanzheng chuqi liangcao wenti chutan 壬辰御倭战争初期粮草问题初探', *Shehui kexue jikan* 社会科学辑刊 4 (2012): 174-82; Kim Kyŏngt'ae, 'Imjin chŏnjaeng chokiŭi kunnyang munjewa kanghwa kyosŏp nonŭi', *Yŏksawa tamnon*, 2014, 37-71; Sun Weiguo 孙卫国, 'anli Chaoxian zhiyi qianqi Mingjun liangxiang gongying wenti tanxi 万历朝鲜之役前期明军粮饷供应问题探析' W, *Kudai wenming* 古代文明 13, no. 4 (2019): 89-101.

⁸⁵ Lee Jeongil, 이정일, 'Imjin waeran ch'ogi Cho-Myŏng kunsu hyŏmnyŏk ŭi yangsang - Pyŏkchegwan chŏnt'u chŏnhu rŭl chungsim ŭro' 임진왜란 초기 조명 군사 협력의 양상 - 벽제관 전투 전후를 중심으로, *Han'guksa hakpo* 한국사학보 75 (2019): 104-105.

⁸⁶ See more research on Japanese logistical issues, Sanbō honbu, *Nihoneki: Chōsenyaku*, 1924, 61-91.

⁸⁷ Kitajima Manji, 2017, vols 1, 934. 薩藩舊記雜錄 後編二八 義弘公禦譜中

⁸⁸ Kitajima Manji, 2017, vols 2, 163-166.

⁸⁹ The castle was established by Hideyoshi in 1591 but was abandoned in 1598.

disease, and increasing mortality rates from epidemics that had raged for over three months, the desire for peace negotiations grew on both sides. Finally, Yukinaga sent an official letter proposing negotiations to the Ming general Li Rusong on the eighth day of the third month. Although both sides suspected that the other's desire for negotiation might be a trick, they nonetheless agreed to talks.⁹⁰

The commencement of negotiations coincided with the most severe period of the epidemics. As the Japanese force faced many difficulties in the north such as the cold, shortage of provisions, and severe illness, Hideyoshi's daimyo concluded that they should limit their occupation to the southern regions and agreed to withdraw to Ch'ungch'ōng-do and Chōlla-do in the south, where Chosŏn had stored provisions that could potentially be looted by the Japanese. A southern fortified position was also more convenient for receiving supplies from Japan, so the daimyo requested that Hideyoshi build storage facilities along the southern coastline.⁹¹ Their experience of the first winter in the north of Chosŏn had taught them that it was important to maintain a stronghold in the south. Most significantly, this acknowledgment had a direct impact on the second invasion of Chosŏn, when the Japanese troops were mainly stationed in the south of the peninsula. Strategically, the retreat to the south was tantamount to acknowledgment that the Japanese campaign to invade Ming China had failed, and their negotiating position over the coming years came to reflect this new reality.

The epidemics continued to ravage the Japanese forces and their sojourn in the south had profound consequences for the local population. After their retreat on the nineteenth day of the fourth month of 1593, Katō Kiyomasa occupied Kyōngju, while Hideyoshi sent a directive expressing his determination to take Chinju, the first assault having failed in 1592. One diary describes the calamitous repercussions faced by the people of Chinju after the second, successful Japanese campaign in the fifth month: 'The old and poor were trapped in the town. The Japanese killed everyone, taking no

⁹⁰ Yoshino Jingozaemon 吉野甚五左衛門, 'Yoshino Jingo Zaemon Ooboegaki 吉野甚五左衛門覺書', in *Zoku Gunsho Ruijū* 続群書類従, vol. 20 (Tōkyō: Zoku Gunsho Ruijū Kanseikai, 1923), 386-7. For more details of the process, see also Kitajima 2017, 2: 2-6. Meanwhile, Li Rusong informed the Chosŏn court of his intention to negotiate, although Chosŏn would have preferred the Ming armies to keep fighting.

⁹¹ Kitajima, 2017, 2: 66.

prisoners in an area of around forty *ri* and leaving mountains of corpses of soldiers.⁹² Furthermore, *Sŏnjo sillok* includes a record of injured soldiers and starving people who were infected by epidemic diseases in Kyŏngsang province.⁹³ The Pibyŏnsa 備邊司 (Agency for Border Affairs) explains that ‘Kyŏngsang province had been disturbed by bandits for years. In addition to hundreds of battles, it was struck heavily by famines and epidemics. The spirits of the soldiers, both young and old, were greatly cast down. The enemy gathered together and none could repel them’.⁹⁴ The fact that the outbreak in Kyŏngsang province coincided with the Japanese withdrawal to the region suggests that the contagion was either brought by the Japanese from Hansŏng or it was caused by the resurgence of fighting in the area.

In summary, the outbreaks of epidemics and logistical pressures caused severe problems for the Ming, Japanese, and Chosŏn armies. According to the *Sŏnjo sillok*, battles, starvation, and epidemics claimed the lives of eight out of ten of the Chosŏn Korean population in the year of warfare leading up to the sixth month of 1593.⁹⁵ Despite their different approaches to dealing with the epidemics, none of the combatant countries was able to successfully address the continuous outbreaks within their forces. As a result, all sides were willing to take part in peace negotiations in order to save their energy and resources for renewed conflict in the future.

Conclusions

By analysing wartime epidemics, this study contributes to growing research on the environmental aspects of war and illustrates the importance of the inclusion of the history of epidemics in military studies in light of the real experience of pandemics.⁹⁶

⁹² *Ri* is a unit of distance equal to 374.3 metres. See Yi T’agyŏng 李擢英, 征蠻錄 *Chŏngmannok*, the 29th Day of the fifth month, 1593.

⁹³ *Sŏnjo sujŏng sillok* 27: 9B (1593.4.1); *Sŏnjo sillok* 37: 29A (1593.4.21).

⁹⁴ *Sŏnjo sillok* 38: 20A (1593/5/23). Another diary bears witness that local people died continuously of epidemics when the Japanese armies were stationed in their town in Kyŏngsang province; see also Yi Ŭion 李宜溫, *Yongsŏ illok* 龍蛇日錄, Accessed March 15th 2020, <https://diary.ugyo.net/>. The fourth month of 1593.

⁹⁵ *Sŏnjo sillok* 39: 19B (1593.6.13).

⁹⁶ Lisa M. Brady, ‘War from the Ground Up, Integrating Military and Environmental Histories’, in *A Field on Fire: The Future of Environmental History* (2019: University Alabama Press, 2019), 250–62; Rebecca M Seaman, ed., *Epidemics and War: The Impact of Disease and Major Conflicts in History* (Santa Barbara, California Denver, Colorado: ABC-CLIO, LLC, 2018); Arthur Franklin, *The Spanish Flu: History of the Deadliest Plague of 1918. Lessons to Learn and Global Consequences of The Great Influenza. Comparison with the Pandemic of 2020 and How*

Specifically, it reveals how the harsh winter environment of the Korean peninsula and severe outbreaks of infectious diseases affected the course of the East Asian War in the late sixteenth century. These factors combined with shortages of provisions to bring the conflict to a standstill and forced the Japanese, Ming, and Chosŏn armies to engage in peace negotiations that continued from the third month of 1593 until the end of 1596.

Furthermore, examination of the medical measures taken against epidemics during the war extends our knowledge of the history of East Asian medicine in the transition period between the late sixteenth and early seventeenth centuries. Confronted with severe injuries and widespread infection in his forces, Hideyoshi dispatched physicians and monks with medical training, while the Ming and Chosŏn troops benefitted from developments in Chinese herbal medicine that had yet to be widely known in Japan.⁹⁷ Although these various measures failed to prevent further infections, the trials of military medicine provided military commanders with practical experience that paved the way for growth in the circulation of medical knowledge in East Asia.

to Prevent New Ones in Future, 2020.

⁹⁷ See also Kim, Harksoon and Youngran Koh, 'A Comparative Study of the Popularization of Medical Knowledge and Information in Korea and Japan in the 17th to 19th Centuries: Cultural Mediums', no. 3, *Ethiopian Journal of Health Development* 34, no. 3 (25 May 2020 r.); Goble, Andrew, *Confluences of Medicine in Medieval Japan: Buddhist Healing, Chinese Knowledge, Islamic Formulas, and Wounds of War* (Honolulu: University of Hawaii Press, 2011 r.).

Chapter 3 Framing epidemic geographies and displacement after the East Asia War of 1592-1598

After the East Asian War of 1592-1598, the population of Korea did not begin to recover until the 1630s, in part because of various calamities that occurred during the post-war rehabilitation period.¹ In the early seventeenth century, a series of natural disasters wreaked havoc on the Korean peninsula, worsened by the crop failures in farmlands already damaged by warfare. This was especially noticeable in the areas around Korea's northern border with China, mainly Hamgyōng province (Figure. 10), where crop production was insufficient and people were forced to survive on official relief provisions. The geography of this northern borderland made it especially vulnerable to epidemics so the people there chose to take flight, either crossing the northern border into Manchuria, or moving internally within the Korean peninsula. While the cross-border movement into Manchuria has been well discussed, the movement of the people who were displaced internally within Korea is rarely studied. A few studies clarify changes that occurred in government policies towards displacement over the long duree of the late Chosŏn dynasty (1598-1910).²

The present chapter contributes to the geographies of Korean internal displacement by examining the environmental history of epidemics in tandem with the spatial fluidity of internally displaced people within Korea and reveals the impacts of this

¹ Jun Seung Ho, James B. Lewis, and Kang Han-Rog, 'Korean Expansion and Decline from the Seventeenth to the Nineteenth Century: A View Suggested by Adam Smith', *The Journal of Economic History* (2008) 68: 262.

² Scholarship has devoted attention to the issue of cross-border movement such as repatriation within the framework of foreign affairs, and the settlement of foreigners as a social issue. Adam Bohnet, *Turning toward Edification: Foreigners in Chosŏn Korea*, Honolulu, 2020); Park Hyunkyū 박현규, 'Imjin waeran sigi Myōngnara ro kōnnōgan Chosŏn yumin koch'al 임진왜란 시기 명나라로 건너간 조선 유민 고찰', *Tongbuga yōksa nonch'ong* 동북아역사논총 41 (2013.9): 253-98. Wang guidong 王桂东, Mingdai Zhong Chao bianjiang didai yu liangguo de shixing wanglai 明代中朝边疆地带与两国的使行往来, *Beijing shehui kexue* 北京社会科学 2 (2018) 41-49; Wang guidong 王桂东, Mingdai Zhong Chao bianjiang didai de renyuan liudong ji qianhuan 明代中朝边疆地带的人员流动及遣还, *Zhongguo bianjiang minzu yanjiu* 中国边疆民族研究 11 (2019), 37-60; Wu Qian 吴倩, Digu de mianzi: taoren yu Mingdai beibu bianjiang 帝国的“面子”：逃人与明代北部边疆, *Zhongguo bianjiang shidi yanjiu* 中国边疆史地研究 29 (2019), 58-69. Regarding the internally displaced people, see also Pyŏn Chusŭng 변주승, 'Chosŏn hugi yumin ūi pukpang pyŏn'gy'ōng yuip kwa kŭ silt'ae 조선 후기 유민의 북방 변경 유입과 그 실태', *Kukhak yŏn'gu* 국학연구, 2008, 195-223; Pyŏn Chusŭng 변주승, 'Chosŏn hugi yumin yŏn'gu 조선 후기 유민연구' (Seoul, PhD Dissertation, Korean University, 1997).

mobility on the spread of epidemics during the seventeenth century. Korean scholars have completed some basic quantitative studies of historical epidemics in the Korean peninsula covering the late Chosŏn dynasty, and have defined the scope of the ‘Little Ice Age’ in Korean history;³ however, these studies mainly focused on quantifying the number of reports mentioning epidemics in one official document: *Chosŏn wangjo sillok*. This study instead brings in quantitative data from private diaries and other official sources and also contextualizes this data through a qualitative analysis of sources that mention epidemic outbreaks in the 1610s.⁴ Departing from the main scholastic trend, which considers seventeenth-century Korean epidemics from the perspective of medical history, I adopt an interdisciplinary approach combining environmental and geographic history in order to clarify environmental factors behind the displacement of people and the spatial relations between displacement and epidemics.⁵

I begin with an overview of the post-Imjin War environment and society in the north of the Korean peninsula and utilise this as a backdrop to explain the depopulation and displacement of people from Hamgyŏng province. The focus on displacement provides a means to analyse the consequences of communicable epidemics during the nationwide epidemics that struck Chosŏn Korea in the 1610s.

³ Lee Joonho 이준호, ‘Chosŏn sidae kihu pyŏndong i chŏnyŏmbyŏng palsaeng e mich’in yŏnghyang -kŏnsŭp ūi pyŏndong ūl chungsim ūro 조선시대 기후변동이 전염병 발생에 미친 영향 -건습의 변동을 중심으로’, *Han’guk chiyŏk chiruha koeji* 한국지역지리학회지 25, no. 4 (2019): 425–36; Yi Kyukeun 이규근, ‘Chosŏn hugi chilbyŏngsa yŏn’gu -Chosŏn wangjo sillok ūi chŏnyŏmbyŏng palsaeng kirok ūl chungsim ūro 조선 후기 질병사 연구 - 조선왕조실록의 전염병 발생 기록을 중심으로’, *Han’guksa yŏn’gu hwibo* 한국사연구회보 116 (2001): 1–42; Yi Taejin 이태진, ‘Sobyŏnggi (1500-1750) ch’ŏnbyŏn chaei yŏn’gu wa Chosŏn wangjo sillok -global history ūi han chang 소빙기(1500-1750) 천변재이 연구와 조선왕조실록 -global history 의 한 장’, *Yŏnksa hakpo* 역사학보 149 (1996.3): 203–36.

⁴ Official documents include *Chosŏn Wangjo Sillok* (Veritable Records of the Chosŏn Dynasty 朝鮮王朝實錄), *Pibyŏnsa tŭngnok* (Records of the Border Defence Council 備邊司謄錄), and *Sŭngjŏngwŏn ilgi* (Journal of the Royal Secretariat 承政院日記). Private diaries include *Kyŏngdang ilgi* (Dairy of Kyŏngdang 敬堂日記), *Kyeam illok* (Daily notes of Kyeam 溪巖日錄), *Sŏnjo chosŏng tangillok* (Diary of ancestors fulfilling and practicing 先祖操省堂日錄), and *Choya ch’ŏmjae* (A Complete Record of the Court and the Outlying Areas 朝野僉載), Accessed November 25th 2020, <https://diary.ugyo.net/>.

⁵ For relevant studies of medical history, see Cho Wonjoon 조원준, ‘16-17 세기 조선의 벽역의서를 통해 살펴본 온역학의 특징’ 16-17 segi Chosŏn ūi pyŏgyŏk ūisŏ rŭl t’onghae salp’yŏbon onyŏkhak ūi t’ŭkjŏng, *Han’guk ūisahak hoeji* 19, no. 2 (2006): 29–47; Cho Woonjoon et al 조원준., ‘17segi ch’o Chosŏn esŏ yuhaenghan ‘tangdogyŏk’e taehan yŏn’gu -Hŏ Chun ūi Pigŏk sinbang ūl chungsim ūro 17세기 초 조선에서 유행한 ‘당독역’에 대한 연구 -허준의 비역신방을 중심으로’, *Tŏngŭi saengni byŏngni hakhoeji* 동의생리병리학회지 18, no. 2 (2004): 311–43; Kim Ho 김호, ‘16 segi mal 17 segi ch’o yŏkpyŏng palsaeng ūi ch’ui wa taech’aek 16세기 말 17세기 초 역병 발생의 추이와 대책’, *Han’guk hakpo* 한국학보 71 (1993): 120–46.

Figure 10 Map of the Korean peninsula



Data and methods

An analysis of spatial-temporal change is necessary in order to understand how the nationwide epidemics of seventeenth-century Chosŏn Korea spread. Recent scholarship has witnessed a significant rise in interest in studying the geographies of epidemics, a trend that has been intensified by the COVID pandemic.⁶ Many of these

⁶ Cf. Matthew Smallman-Raynor and Andrew Cliff, *Atlas of Refugees, Displaced Populations, and Epidemic Diseases: Decoding Global Geographical Patterns and Processes since 1901*, Oxford, 2018; Mark Welford, *Geographies of Plague Pandemics: The Spatial-Temporal Behavior of Plague to the Modern Day*, Routledge, 2018;

studies have utilized historical geographic information systems to present geographically widespread ecological phenomena. However, the application to East Asian studies is still in its beginnings, especially in relation to the pre-modern period.⁷ The present study draws upon the approach developed by John Snow, utilizing medical geography and spatial epidemiology to inform the debate on historical epidemics.⁸ Snow, as a pioneer contributor to medical history and epidemiology, identified the contaminated water of the Broad Street pump as the main source that fuelled London's cholera outbreak in 1854. Snow's dot-map became a classic example and inspired the later GIS-based approach to understanding disease clusters, although as McLeod has shown, it was originally textual analysis that allowed Snow to identify the source.⁹ In a similar vein, in this study, spatial distribution and textual analysis combine to provide us with geographies of epidemic origins and transmission routes in tandem with the flow of displaced people in the 1610 Korean outbreaks.

Using the approach of temporal analysis, I examine data on the frequency of Korean epidemics in the first half of the seventeenth century, using official documents and private diaries. Figure 11 shows the number of reported epidemics found in the three main official sources of the Chosŏn dynasty, *sillok*, *Pibyŏnsa tŭngnok*, and *Sŭngjŏngwŏn ilgi*. The timeline of epidemics shows when the epidemics started, peaked, and faded away.

In order to provide an overview of epidemics in the first half of the seventeenth century,

Matthew Smallman Raynor and Andrew Cliff, *War Epidemics*, Oxford ; New York, 2004; Sean Kheraj, The Great Epizootic of 1872–73: Networks of Animal Disease in North American Urban Environments, *Environmental History* 23 (2018) 495–521; Patricia Murrieta-Flores et al., Automatically Analyzing Large Texts in a GIS Environment: The Registrar General's Reports and Cholera in the 19th Century, *Transactions in GIS* 19 (2015) 296–320; Ian N. Gregory, Different Places, Different Stories: Infant Mortality Decline in England and Wales, 1851–1911, *Annals of the Association of American Geographers* 98 (2008) 773–94. More research on the spatial humanities, see also Xinyue Ye and Hui Lin, eds., *Spatial Synthesis: Computational Social Science and Humanities*, Switzerland, 2020; David J. Bodenhamer et al., *The Spatial Humanities: GIS and the Future of Humanities Scholarship*, Indiana, 2010. Ivan Franch-Pardo et al., Spatial Analysis and GIS in the Study of COVID-19. A Review, *Science of The Total Environment* 739 (2020) 140033.

⁷ Gong Shengsheng et al., Zhongguo lishi shiqi bingyi zaihai de shikong bianqian yanjiu 中国历史时期兵疫灾害的时空变迁研究, *灾害学* 34 (2019) 78–86; Gong Shengsheng, 'Zhongguo yizai shikong fenbu bianqian guilü 中国疫灾时空分布变迁规律', *Dili Xuebao* [Geography Journal] 6 (2003) 870–78. Chun Myungsun. Ilje kangjŏmgi kach'uk chŏmyŏmbyŏng ūi chirichŏk punp'o [Geographic Distribution of Livestock Infectious Diseases in Korea during the Japanese Colonial Period], *Munhwa yŏksa chiri* [Journal of cultural and historical geography] 31(2019) 57-70.

⁸ Russell S. Kirby, Eric Delmelle, and Jan M. Eberth, Advances in Spatial Epidemiology and Geographic Information Systems, *Annals of Epidemiology* 27 (2017) 1–9; Paul Elliott and Daniel Wartenberg, Spatial Epidemiology: Current Approaches and Future Challenges, *Environmental Health Perspectives* 112 (2004) 998–1006.

⁹ T. Koch and K. Denike, 'GIS Approaches to the Problem of Disease Clusters: A Brief Commentary', *Social Science & Medicine* 52 (2001) 1751–54. McLeod later showed that it was textual analysis, which originally helped Snow to show the pattern of cholera deaths in Golden Square. K. S. McLeod, 'Our Sense of Snow: The Myth of John Snow in Medical Geography', *Social Science & Medicine* 50 (2000) 923–35.

the timeline starts in 1599, the year after the Imjin War ended. The final year of analysis is 1650.

As can be seen, the official sources contain few or no records of epidemics for some years, but this does not necessarily mean there were no epidemics in Korea that year. Record loss and poor compilation practices immediately following the Imjin War, for example, most likely explain these gaps. Additionally, one must consider the accuracy of the sources. The *sillok* was the main official source recording the events of each ruler's reign and had strict rules around its compilation such that it is generally regarded as authoritative. However, it should be noted that during the compilation process, historians could choose to include or omit records on epidemics. In the Confucian world view, disasters like famines and epidemics were believed to be related to the misconduct of kings, and so adding or subtracting from their number recorded in *sillok* might conceivably be a way for historians to create the impression of a particular reign as having been virtuous or, on the other hand, to offer a subtle critique of a particular king.¹⁰ Thus, the records contained in *sillok* cannot be taken in isolation as an unproblematised source of outbreak numbers. I therefore combined them with two other official sources, the *Pibyönsa tŭngnok* and *Sŭngjŏngwŏn ilgi*, which increases the dataset for Figure. 11, although it should be noted that parts of these records from the 1610s are missing. To further increase the accuracy of the data, therefore, I also used private diaries, to supplement the quantitative data and also to provide material for qualitative analysis of eyewitness information about epidemics. Figure. 12 shows the number of mentions of epidemics in the first half of the seventeenth century in these private diaries. Mentions of epidemics in these two types of sources (official and private) were combined in Figure. 13, with the result that we see reports of epidemics having increased dramatically after the 1610s, with two noticeable peaks in the period of focus of this study, one from 1611 to 1612, and another from 1617 to 1618.

¹⁰ Howard Kahm and Dennis Lee, 'Begging for Rain: Economic and Social Effects of Climate in the Early Koryŏ Period', *Journal of Korean Studies* 26 (2021): 5–6.

Figure 11. Numbers of official records on the epidemics

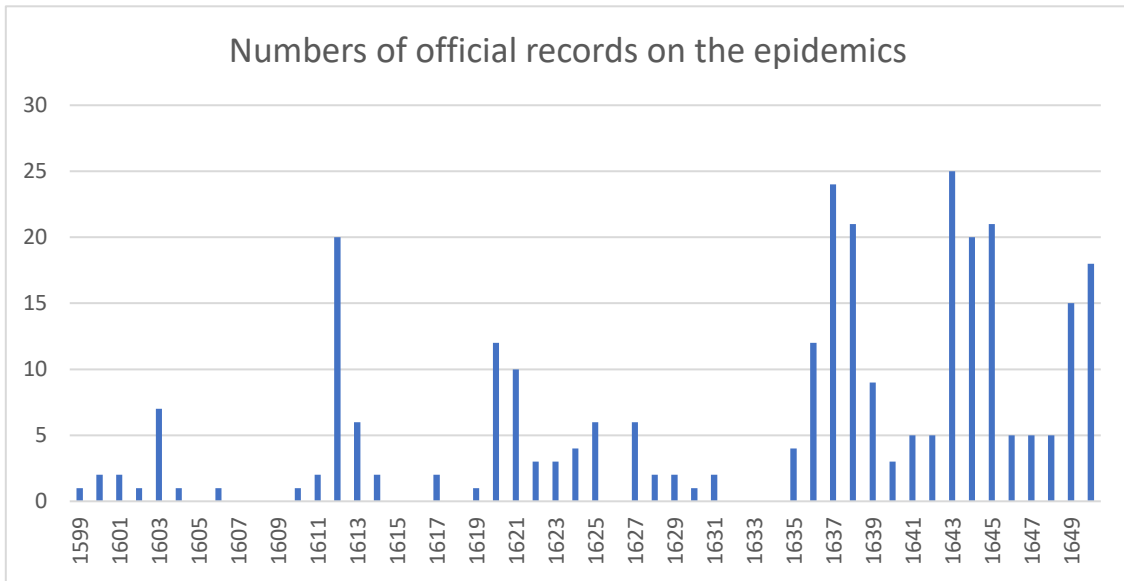
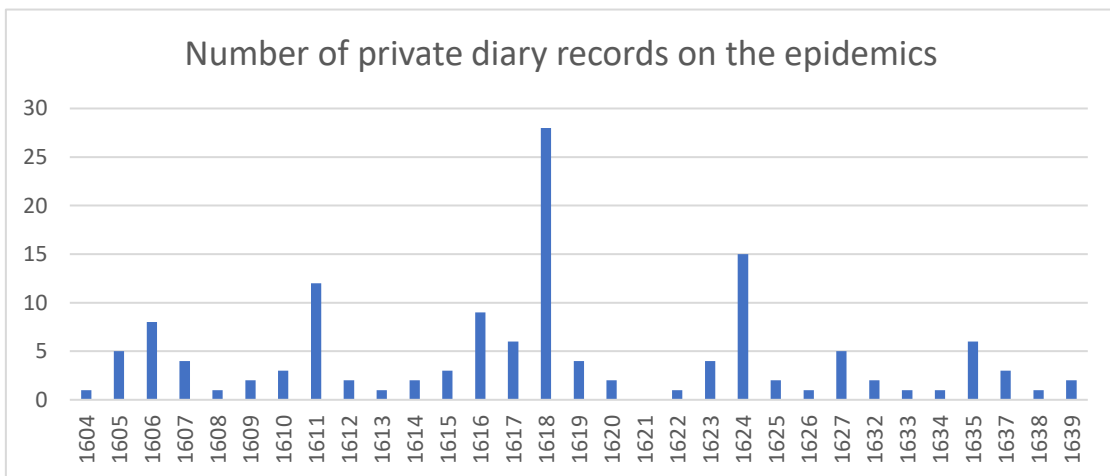
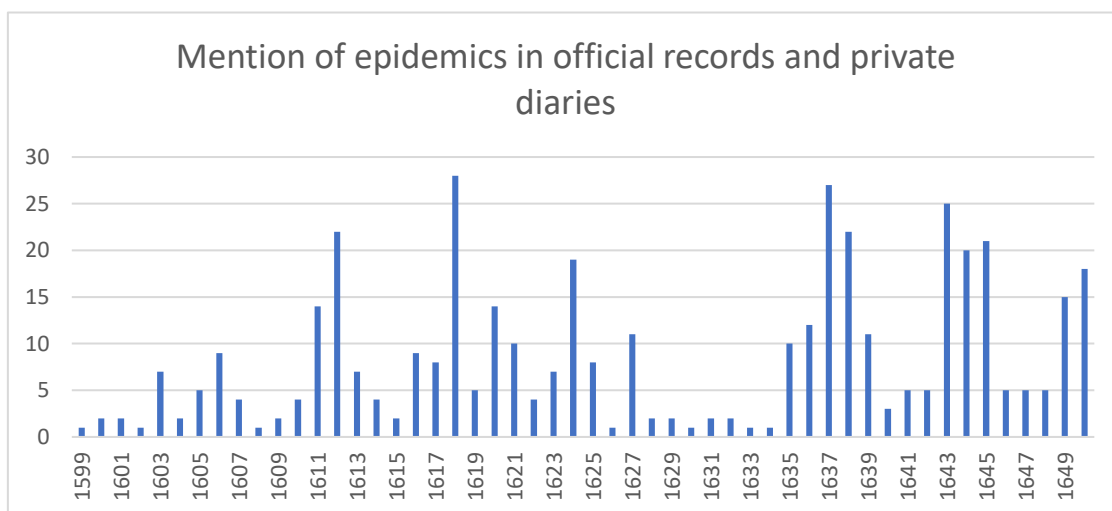


Figure 12. Number of private diary records on the epidemics¹¹



¹¹ The graph is based on private diaries collected in the database of Korean studies institute, accessed 21 Oct 2020.

Figure 13. Combined mention of epidemics in official records and private diaries



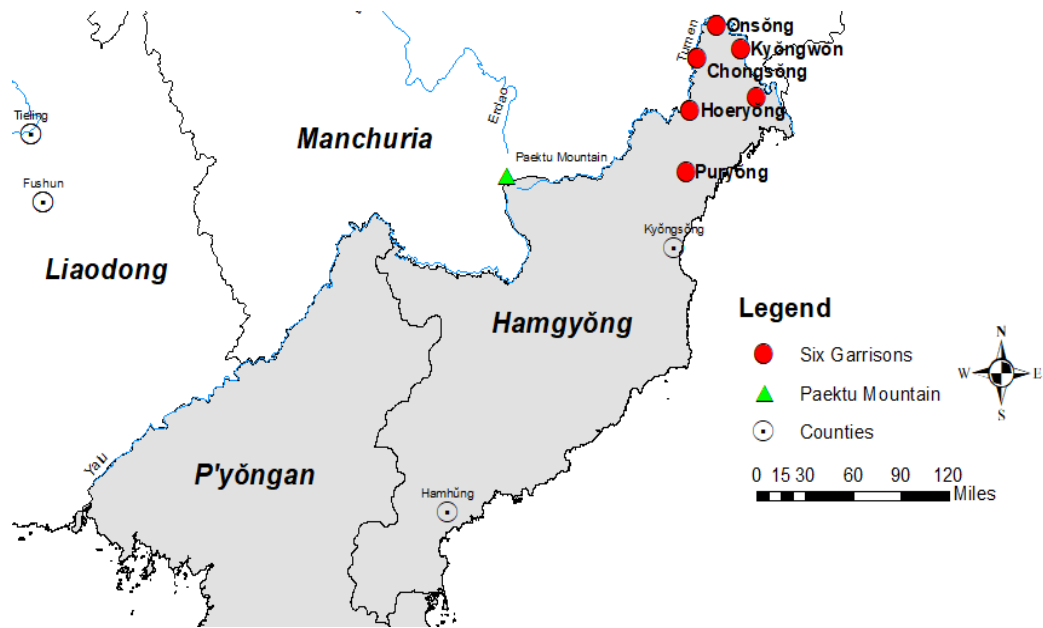
Meaning of key terms

The existing scholarship on the phenomenon of displacement in the modern period has classified displaced people into refugees, asylum seekers, internally displaced persons, and stateless persons.¹² The working definition of ‘displaced people’ used in this chapter for pre-modern Korea, draws upon these definitions, in dialogue with the terms and descriptions of *yumin* 流民 that appear in the original sources cited in this study. In the case of Hamgyōng province, which is the focus of this study, given its location, the fleeing villagers have been described in previous modern literature as ecological migrants or environmental refugees, because they could easily cross the border to Manchuria and travel further into Ming territory in search of a better life. (Figure. 14).¹³

¹² Smallman-Raynor and Cliff, *Atlas of Refugees, Displaced Populations, and Epidemic Diseases: Decoding Global Geographical Patterns and Processes since 1901*, Oxford, 2018, 5–6. Refugee is reserved for a displaced person who has been forced across an international border.

¹³ Zhao Songjie observed the ecological migration and regional trade in the Tumen River from a large time span from fifteenth to the nineteenth century, where he first identified Korean frontier inhabitants who crossed the border as ecological immigrants because of the pursuit for a better living environment and economic relations with rising Jianzhou Jurchens. Zhao Songjie, 赵崧杰, 15zhi 19shiji Tumenjiang liuyude shengtai yimin yu quyumaoyi’ 15 至 19 世纪图们江流域的生态移民与区域贸易, *Zhongguo lishi dili luncong* 中国历史地理论丛 34 (2019) 108–15.

Figure 14. Map of Northeast Asia in the early seventeenth century



Although these terms, ‘ecological migrants’ and ‘environmental refugees,’ do cover a part of the experience of some people in question, others among their number remained within the peninsula, moving to other provinces of Chosŏn Korea in order to escape the violence brought by the Japanese invasion and unfavourable natural disasters. Their experience has more in common with the definition contained in the United Nations Guiding Principles on Internal Displaced people,¹⁴

Have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border.

Although this definition is rooted in modern conceptions of displacement, it matches the displacement experienced by the Chosŏn Koreans at the time in question; these people therefore can be classified as internally displaced people.¹⁵

¹⁴ UNOCHA, *Guiding Principles on Internal Displacement*. Geneva, 2004, 1-5.

¹⁵ John S. Lee, ‘Protect the Pines, Punish the People: Forests and the State in Pre-Industrial Korea, 918-1897’, Ph.D dissertation Harvard University (2017) 145–48.

Displacement of the northern borderland and environmental disruptions after the East Asian War (1592-1598)

(Life) in the north was cold and arduous and the lands were barren. Even in years of prosperous harvest, there were still locals who clothed themselves with dog skins and saddle blankets and plenty of people ate grass and husks.¹⁶

Hamgyŏng province, at the mercy of its geographical location and climate, often suffered from poor crop outcomes. To the north of the province lay Paektu Mountain, an active volcano that added further uncertainty to this already vulnerable borderland area. The high mountain range in the north, to which Mt Paektu belonged, did not block the cold air from Siberia, which combined with the local sub-arctic climate to produce extremely cold winters. To the east, the province was bordered by the East Sea and had a maritime climate, which was easily affected by cold ocean currents.¹⁷ In addition, two large rivers flowed through the region, the Yalu and the Tumen. Towns and county headquarters were established in shallow river valleys amid the mountains and hinterlands (Figure. 15). Due to the mountainous terrain with a scarcity of arable lands, and inclement weather, the northern lands did not produce cotton, which was essential to keep warm in winters, and crop harvests were also poor compared to other provinces.¹⁸ Poor agricultural outcomes caused frequent financial difficulties, arduous civil life, and brutal revolts in the region even before the Imjin War.¹⁹

¹⁶ *Kwanghae-gun ilgi* 41:33A(1617.8.29).

¹⁷ Kang Soekhwa 강석화, *Chosŏnhugi Hamgyŏngdowa pukpangyŏngt'oüisik* 조선후기 함경도와 북방영토의식 (Kyŏmgsewŏn 경세원, 2000); Kim Paekchol 김백철, 'Chosŏn sidae Hamgyŏngdo chiyŏksa siron -Kyujanggak sojang chiriji charyŏrül chungsim ūro 조선시대 咸鏡道 지역사 試論 -奎章閣소장 地理志자료를 중심으로', *Kyujanggak 규장각* 51 (2017) 1-62.

¹⁸ *Kwanbuk Ūpchi* 關北邑誌, 1871, preserved in Kyujanggak Institute of Korean Studies. *Sŏnjo sillok* 34:32A (1601.2.24). Throughout this article, citations from the Chosŏn wangjo sillok (The Annals of the Joseon Dynasty, 1413-1865) are given in the following format: names of kings, volume numbers, and page numbers, followed by lunar calendar dates in brackets. The edition used is Chosŏn wangjo sillok [The Annals of the Joseon Dynasty]. accessed 4th December 2020.

¹⁹ Lee Uk 이욱, 17-18 segi pŏmwŏl sagŏn ūl t'onghae pon Hamgyŏngdo chumin ūi kyŏngje saenghwal 17-18 세기 범월사건을 통해 본 함경도 주민의 경제생활, *Yŏksahak yŏn'gu* 38 역사학연구(2010) 148; Kim Manho 김만호, I mjin Waeran'gi Ilbon'gunŭi Hamgyŏngdo chŏmnyŏnggwa chiyŏngminŭi tonghyang 임진왜란기 일본군의 함경도 점령과 지역민의 동향, *Yŏksahak yŏn'gu* 역사학연구 38 (2010) 161.

Figure 15. Map of Hamgyŏng province²⁰



Mountains and two large rivers naturally demarcate the Jurchen territory and Hamgyŏng province. Administratively, Hamgyŏng province was divided into northern and southern parts, while without further specification, Hamgyŏng province in this paper refers to the entire region. To the north, King Sejong (1418 - 1450) established Six Garrisons along the Tumen River in 1449 as an important strategic base from which to defend against the Jurchens by mobilizing the southern populace.²¹ Since then, Koreans and other ethnic groups such as the Pŏnho 藩胡 (frontier, border, or vassal Jurchen) began to dwell together and this region became known as a zone of encounter, which contributed to the regional movement especially during difficult times. The Imjin War period and the decades immediately following this conflict were no exception in the long history of troubles faced by Hamgyŏng. For example, there were locust infestations in the province in 1597, 1599, and 1603. On each of these occasions, a dry summer provided a favourable environment for eggs to incubate in the ground, and the damage to crops was considerable.²² Famines also continued to occur frequently in the 1610s because of

²⁰ Atlas of Korea (*Haedong chido* 海東地圖), ca. 1750s, preserved in Kyujanggak Institute of Korean Studies, accessible online <https://kyudb.snu.ac.kr/>.

²¹ *Sejo sillok* 43:2A (1467.7.2). Before the East Asian War in 1591, it was estimated there were 8,523 households of Pŏnho in Hamgyŏng. Bohnet, *Turning toward Edification*, 39, 45 and 87.

²² *Sŏnjo sillok* 89: 17B (1597. 6.13). *Sŏnjo sillok* 114: 27A (1599.6.29) 咸鏡道蝗, 損食禾穀; *Sŏnjo sillok* 165: 15B

unstable precipitation.²³ For example, it was reported that a violent rainstorm swept from the north-west to the south-east in the eighth month of 1617, when observers reported that ‘the hailstones were as big as birds’ eggs’ and ‘all of the chickens were struck by the hail and died.’ Wherever it swept, it stripped trees of their branches and leaves and decimated crops.²⁴ Thus, the early decades of the seventeenth century saw much abnormal weather, with the storms of 1617 followed by an unprecedented drought from 1618 to 1619,²⁵ which resulted in a prolonged period of starvation and malnutrition for the people of Hamgyŏng, who became early victims of the epidemics discussed below.

Another geographical feature of the area was the unpredictability of Tianchi, the active volcano on Paektu Mountain on the border, which also presented a threat to the local populace. During the Imjin War, between the 26th and the 28th day of the eighth month of 1597, eight earthquakes were reported in Hamgyŏng: walls and roofs collapsed, livestock and wild animals were frightened, and people fell ill.²⁶ At the same time, Tianchi erupted and dark clouds of smoke were reported to have suddenly filled the sky, accompanied by deafening sounds. A record in *sillok* reports that ‘red muddy water sprang out of the ground and the rivers were coloured, white, yellow, and red’, which likely refers to volcanic sediment.²⁷ Based on the descriptions seen in historical sources, scientific research suggests that the event in 1597 was a volcanic eruption despite an ongoing debate as to its magnitude.²⁸ As the relations between volcanism and global plague pandemics elsewhere in world history have shown, the epidemics discussed below might have some

(1603. 8. 11).

²³ *Sŏnjo sillok* 190: 22B (1605. 8.7).

²⁴ *Kwanghae-gun ilgi* 41:26A (1617.8.23).

²⁵ Kim Yŏng 金鈴, *Kyeam illok* 溪巖日錄 vol. 3. Accessed November 25th 2020, <https://diary.ugyo.net/>. 1618.4.18, 1619.4.29.

²⁶ *Sŏnjo sillok* 58:22B (1597.9.16). 咸鏡道自八月二十六日, 至二十八日, 連八度地震, 墻壁盡掀, 禽獸皆驚, 或有人因此病臥不起者。

²⁷ *Sŏnjo sillok* 93: 3B (1597.10.2). 咸鏡道觀察使宋言慎書狀: 去八月二十六日辰時, 三水郡境地地震, 暫時而止; 二十七日未時, 又爲地震, 城子二處頽圮, 而郡越邊巖, 半片崩頽, 同巖底三水洞 中川水色變爲白, 二十八日更變爲黃; 仁遮外堡東距五里許, 赤色土水湧出, 數日乃止; 八月二十六日辰時, 小農堡越邊北德者耳遷絕壁人不接足處, 再度有放砲之聲, 仰見則烟氣漲天, 大如數抱之石, 隨烟拆出, 飛過大山後, 不知去處; 二十七日酉時, 地震, 同絕壁, 更爲拆落, 同日亥時、子時, 地震事。

²⁸ Chu KS, Tsuji Y, Baag CE, Kang TS, Volcanic eruptions of Mt. Baekdu (Changbai) occurring in historical times. *Bull Earthq Res Inst Univ Tokyo* 86 (2011)11–27; Yun Sunghyo 윤성효, Paektusan ūi yŏksa sidae punhwa kirok e taehan hwasanhak chŏk haesŏk 백두산의 역사시대 분화 기록에 대한 화산학적 해석, *Han’guk chigu kwahakhoeji* 34 (2013) 466. Concerning the 1597 eruption, there was still ongoing argument and research. Wei Haiquan, Liu Guoming, and James Gill, Review of Eruptive Activity at Tianchi Volcano, Changbaishan, Northeast China: Implications for Possible Future Eruptions, *Bulletin of Volcanology* 75 (2013) 706.

correlation with the Tianchi eruptions, since the ash may have temporarily affected the region's climate and harvests, although proving such a hypothesis is beyond the scope of this paper.²⁹

A final factor that is worth noting is that the environmental conditions of the province limited the variety and quantity of goods that could be used in transactions, and this resource scarcity contributed to the economic difficulties forcing people to leave. As noted earlier, cotton could not be grown in Hamgyŏng and was instead purchased from its southern neighbour, Kangwŏn province.³⁰ Given that the trade of necessities like rice or cotton was essential for the people of Hamgyŏng, the government ordered that the cotton paid as tribute by Kangwŏn province to the central court should be sent directly to the northern borderland so that they could exchange it for rice from the Jurchen tribes.³¹ The Jurchens, who did not face the ravages of war, continued to cultivate rice, for which the people of Hamgyŏng would typically trade cotton, which the Jurchens lacked. When direct silver trade was unavailable, the Chosŏn government set up a regular market at Musan near the border with the Jurchens in 1603, which provided a relatively stable market where the northern inhabitants could exchange handcrafts with Jurchens for pelts and ginseng.³² Being located at an intersection provided Hamgyŏng with the opportunities to trade with the Jurchens, which temporarily alleviated the difficulties in farming and living caused by the harsh environment.

Such trade, nonetheless, could not completely solve the difficulties caused by famines and diseases in the north, nor the issue of displaced people. Comparisons can be drawn with other Eurasian countries such as Britain, France, Netherlands, Denmark, China, and Japan, which attempted to address shortages of arable lands, fuel, or building materials through long-distance trade with less densely populated areas in the seventeenth and eighteenth centuries. Ultimately these measures did not provide a fully adequate

²⁹ Henry G. Fell et al., Volcanism and Global Plague Pandemics: Towards an Interdisciplinary Synthesis, *Journal of Historical Geography* 70 (2020): 36–46.

³⁰ *Myŏngjong sillok* 33: 59B (1566.10.24).

³¹ *Sŏnjo sillok* 189: 4B (1605.7.6).

³² *Sŏnjo sillok* 121: 19B (1600.1.26). Han Seongjoo 한성주, Chosŏn'gwa Yŏjin ūi ch'op'i kyoyŏk sŏnghaeng kwa kŭ yŏngnyang 조선과 여진의 초피 교역 성행과 그 영향. *Manju yŏn'gu* 만주연구 25 (2018): 9-42; Zhao Songjie, 15zhi-19shiji Tumenjiang Liuyu de shengtaiyimin, 114; Bohnet, *Turning toward Edification*, 77. Diao Shuren 刁书仁, Mingdai Nüzhen yu Chaoxian de maoyi 明代女真与朝鲜的贸易, *Shixue jikan* 5 (2007), 72-8.

solution either. Instead, comprehensive environmental and economic factors explain the movement of Chosŏn's northern dwellers towards places where the land-labour ratio or capital-labour ratio was higher, in order to obtain a better living.³³

Displacement of people after the East Asian War

Situated far from the central government, the northern people were unable to receive prompt relief in times of crisis, and during the Imjin War, increasing numbers fled. This section examines the wartime and post-war displacement, arguing that, in addition to natural disasters, the intractability of life-threatening social problems like foreign incursions and heavy corvée labour contributed to the displacement and depopulation of Hamgyŏng province after the war.

Warfare was clearly one main factor in the displacement of people from Hamgyŏng province, as residents left to fight against the Japanese invaders. The Japanese daimyos Katō Kiyomasa (1562-1611) and Nabeshima Naoshige (1538-1618) invaded Hamgyŏng with a force of 20,000 in the seventh month of 1592 and even crossed the Tumen River into the territory of the Jurchens. Right after the Japanese soldiers arrived, a guerilla group of 'righteous soldiers (Ŭibyŏng 義兵)' from Hamgyŏng province was organized by local elites and peasants. For example, Shin Hal (申砮, 1548-1592), a military general from Hamgyŏng province, organized 930 mounted troops and with the course of the warfare, they went to the southern battlefields but did not return after the war.³⁴ Such was the devastation caused by the Japanese invasion that no more than one-tenth of the population of Hamgyŏng remained in 1601.³⁵ In the mid-sixteenth century, only a few hundred people fled every year, but by comparison, in one report from 1605, only ten to twenty percent of people stayed in the town of Hoeryŏng, one of the main towns of the Six Garrisons. By the fifth month of 1605, the registers record that over

³³ Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy*, Princeton and Oxford, 2001, 20, 83.

³⁴ *Sŏnjo sillok* 26:1A (1592.5.2). Kuksa p'yŏnch'an wiwŏnhoe, Chosŏn chunggi ũi oech'im kwa kŭ taeŭng 조선 중기의 외침과 그 대응, in *Hanguksa* 한국사 29, Seoul, 1995. More research on Chosŏn righteous soldiers, see also Lee Taejin 이태진, *Kim Sŏngil kwa Imjin waeran Ŭibyŏng kwa Chinju taech'ŏp* 김성일과 임진왜란: 의병과 진주대첩, Seoul: 보고사 Pogosa, 2019.

³⁵ *Kwanghae-gun ilgi* 40:113B (1617.7.28). *Sŏnjo sillok* 135: 21A (1601. 3.19).

2,700 people fled and the exact depopulation went far beyond this number.³⁶

The destruction of crops during the war also contributed to the displacement of Koreans across the northern boundaries or scattered in the peninsula. Along their invasion route, the Japanese armies occupied the fortress of Chongsŏng and looted and burnt three more counties, which destroyed over half of the arable lands near the two rivers -Tumen River and Yalu River; the ripe grain had also not been harvested before their incursion.³⁷ In the Ming-Chosŏn border area, ‘starving and with no means of maintaining their livelihood,’ many Koreans ‘relied on help from Ming armies,’ ‘dyed their clothes,’ and ‘crossed the river’ in 1593.³⁸ Likewise, in the Manchuria- Hamgyŏng frontier, the chaos of the war rendered innumerable people homeless and they spread across the Korean peninsula; records report that they wandered from town to town, begged, and had nowhere to go.³⁹

It was not only the impact of the Imjin War but also continuous regional conflicts that caused locals in Hamgyŏng province to become more dispirited and scattered.⁴⁰ Soon after the Imjin War, between 1601 and 1603, the Ula, a Jurchen tribe, appeared in the Tumen River area and launched raids against north Hamgyŏng. Their success in these raids gained the Ula dominance over the Pŏnho as well as trading privileges with Chosŏn before Nurhaci’s dominance in 1613.⁴¹ The post-Imjin rehabilitation period of the early seventeenth century coincided with an increase in tensions among Ming Chinese, Koreans, and Manchus, which culminated in the Manchu invasions of Korea in 1627 and 1636. The continuous regional conflicts as listed in Table. 6 directly led to the social instability and population diffusion in the north.

³⁶ *Ch’ungjong sillok* 94:24A (1540.11.3). *Sŏnjo sillok*187: 5A (1605.5.15). *Sŏnjo sillok*190: 1A (1605.8.1).

³⁷ Stephen Turnbull, *Samurai Invasion: Japan’s Korean War, 1592-98* (London: Cassell & Co, 2002), 79–80. *Sŏnjo sillok* 35: 26B (1593.2.16). *Sŏnjo sillok* 56: 25A (1594.10.11).

³⁸ *Sŏnjo sillok* 56: 11A (1594.10.8). *Sŏnjo sillok* 54: 31A (1594.8.25). See also Bohnet, *Turning towards Edification*, 63.

³⁹ *Sŏnjo sillok* 34: 39A (1593. 1. 25).

⁴⁰ *Sŏnjo sillok* 190:1A (1605. 8.1).

⁴¹ Bohnet, *Turning toward Edification*, 78-79.

Table 6 Conflicts in the northern zone of encounter

Conflicts	Time
Imjin War	1592-1598
Nurhaci attacked and conquered Hada	1599, 1603
Nurhaci launched an expedition against Ula	1613
Battle of Fushun, Liaodong	1618
Battle of Sarhu, Liaodong	1619
Manchu's first invasion of Korea	1627
Manchu's second invasion of Korea	1636

Warfare was economically devastating for the Chosŏn government, which in turn meant they were unable to send relief to the northern borderland during and after the war. Instead, relief duties were shifted to locals and brought heavier corvée labour requirements to the region. Before the Imjin War, the central government would receive Jurchen allies in the capital, hosting banquets and providing them with clothes. Right after the war in 1601, the local officials received the Jurchens at Hamhŭng, thus placing substantial burdens on the local administration.⁴²

The exterior threats from the Japanese and Jurchen tribes drove the government to place more soldiers on the northern border, which in turn meant more military service for locals.⁴³ For example, around one hundred men from Hamgyŏng province were selected to guard the border in 1601. They left home in the third month and were only allowed to return home in the ninth month, but these six months were also the most important for agriculture. Attempts to negotiate with the generals to change the schedule were in vain.⁴⁴ Many men died in the warfare, leaving farmlands uncultivated so women had to shoulder a greater share of agricultural work. Even worse for families without male labourers, the abandoned wives and children often starved and died. Others, who could

⁴² *Sŏnjo sillok* 134:32A (1601.2.24). Bohnet, *Turning toward Edification*, 76.

⁴³ Min Deak-kee 민덕기, Imjin waeran'gi Chosŏn ūi pukpang Yŏjijog e taehan wigi ūisik kwa taewingch'aek - namwae-bungnoran ch'ungmyŏn esŏ 임진왜란기 조선의 북방 여진족에 대한 위기의식과 대응책 -남왜북노란 측면에서', *Han-Il kwan'gyesa yŏn'gu* 한일관계사연구 34 (2009) 179-218. *Sŏnjo sillok* 30:12B (1592.9.15). *Sŏnjo sillok* 135: 21A (1601. 3.19).

⁴⁴ *Sŏnjo sillok* 135: 21A (1601. 3.19).

not cope with the burdens, chose to bury their newborn infants and take flight to survive. They did so even if they gave birth to a boy, because boys would grow up to be recruited one day.⁴⁵

Mapping displacement and epidemics

This section considers the spread of epidemics from Hamgyŏng province to the rest of Korea. The unfavourable environmental conditions of early seventeenth-century Hamgyŏng province meant that its weakened people were susceptible to frequent epidemic outbreaks. In 1602, the special inspector of famine relief (Kuhwang Ŏsa 救荒御史) reported that the inhabitants of three towns in the province were suffering from famine and epidemics that claimed hundreds of lives.⁴⁶ Medical history scholars attribute the epidemics in the early seventeenth century to cold weather, more precisely, the ‘Little Ice Age’, which is posited to have occurred in the seventeenth-century in the northern hemisphere.⁴⁷ Setting aside the question of the cause of the epidemics, I delineate the process by which local epidemic outbreaks and displacement from Hamgyŏng province worked in tandem to produce an epidemic on a nationwide scale in Korea. This chapter chooses as a case study the mortality crisis of the 1610s, in particular the peak years 1612 to 1613 and 1617 to 1618, all known as epidemic years for *tanghongyŏk* 唐紅疫 (red pox from China) or *tang'on* 唐癘 (epidemics from China).⁴⁸

⁴⁶ *Sŏnjo sillok* 150: 4B and (1602.5.9).

⁴⁷ Cho Wonjoon, 조원준, 16-17세기 Chosŏn ūi pyŏgyŏk ūisŏ rŭl t'onghae salp'yŏpon onyŏkhak ūi t'ŭkjing' 16-17세기 조선의 벽역의서를 통해 살펴본 온역학의 특징, *Han'guk ūihak hakhoeji* 한국의사학회지 19 (2006): 31; Kim Ho 김호, 1612 nyŏn onyŏk palsaeng kwa Hŏ Chun ūi *Sinch'an pyŏgonbang* 1612년 온역(溫疫) 발생과 허준(許浚)의 신찬벽온방(新纂僻溫方), *Chosŏn sidae sahakpo* 74 (2015), 312–15. More studies on the climate and ‘Little Ice Age’ in the seventeenth century, see also Takuya Sagawa et al., Solar Forcing of Centennial-Scale East Asian Winter Monsoon Variability in the Mid- to Late Holocene, *Earth and Planetary Science Letters* 395 (2014) 129. Geoffrey Parker, *Global Crisis - War, Climate Change and Catastrophe in the Seventeenth Century*, Yale University Press, 2013.

⁴⁸ They are all synonyms among *Tanghongyŏk* 唐紅疫 or *Tang'on* 唐癘 (epidemics from Tang), 唐疾 *Tangjil* (disease from Tang). Kim Yŏng 金玲, *Kyeam illok* 溪巖日錄, vol. 2, 1614.8.2, 1614.9.12. Son Ch'ŏnul 孫處訥, *Modang ilgi* 慕堂日記 Vol. 5, 1617.11.24, 11.25. Accessed May 5th 2020, <https://diary.ugyo.net/>. *Kwanghae-gun ilgi* 26:25A (1613.10.25).

Regarding terminology, the usage of the word *tang* in these expressions referred to the Ming empire or China, and it provides a clue to the origins of the epidemic. During the 1610s, Ming China and Manchuria were also frequently struck by epidemics,⁴⁹ and the geographical proximity and frequent communicable movement within these areas make it possible to surmise that the epidemic initially entered the peninsula through interaction between Hamgyōng people and Chinese or Manchurians. Regardless of the geographic origins of the epidemics, the following were considered to be the direct causes: the unsanitary environment, such as the unburied corpses and contaminated water after the Imjin War and the extreme cold in the seventeenth century from the ‘Little Ice Age’.⁵⁰ Similarly, Hō Chun (許浚 1539-1615), the Korean royal physician and the author of the epidemic prescriptions at that time, attributed the epidemics to the abnormal atmosphere or an imbalance in the ‘five elements’ (K. *unse* 運勢) drawn from ancient Chinese geomantic philosophy.⁵¹ The idea of an abnormal atmosphere can also be seen as a kind of environmental perspective by Chosŏn literati and might have functioned together in that the northern people suffering from coldness and malnutrition were prone to infectious diseases.

Furthermore, the usage of the word ‘red’ in the expression *tanghongyōk* suggests that the main symptom of this epidemic was the outbreak of red spots all over the patients’ bodies. Given that description, the disease was likely to have been typhus, some kind of relapsing fever, or even measles. In addition to this representative symptom, local diaries also show other symptoms such as headache, fever, sweating, shortness of breath, coughing, lack of appetite, and oedema of the cheeks, which also hints at the possible

⁴⁹ *Qing shilu* [Veritable Records of the Qing Dynasty] 4:9a (1613.9.1). 卷之四 癸丑歲 九月 一日 1613. 其兀蘇城以痘疫未收。

⁵⁰ 조원준 Cho Woonjoon, 17 segi ch’o Chosŏn esŏ yuhaenghan ‘Tangdogyōk’ e taehan yŏn’gu -Hō Chun ūi *Piyōk sinbang* ūl chungsim ūro 17세기 초 조선에서 유행한 ‘당독역’에 대한 연구 -허준의 비역신방을 중심으로, *Tongŭi saengni byōngni hak’oeji* 동의생리병리학회지 18 (2004) 314–15; Kim Ho, 1612nyŏn onyōk palsaenggwa Hō Chun ūi *Sinch’an byōgonbang*, 307-333.

⁵¹ Hō Chun, *Sinch’an byōgonbang* 新纂辟溫方, 1613. 「火運之勢多疫厲」, “五運之中 戊癸屬火 火有君火相火 君火爲少陰 相火爲少陽 少陰司天 天下疵疫 少陽司天 疫癘大行 丑未之歲 少陰加臨 則民病瘟疫盛行 遠近咸若 火運之歲 熒惑光明 天下疫癘 (內經)”

type of epidemic, albeit with no degree of certainty.⁵² Some of the symptoms were lethal and highly infectious, so entire families could be infected at once.⁵³

Initial epidemic outbreaks in the northern borderland

The epidemic of 1611 initially broke out in Hamgyŏng province in the winter. The Provincial Governor (Kamsa 監司) reported that an outbreak occurred in Ŏnsŏng 穩城 county and soon spread to other towns around the end of 1611, such that they were in urgent need of medicine. Consequently, in the first month of 1612, Kyŏnghŭng 慶興 county reported continuous infectious deaths. By the fifth month, the Six Garrisons in the northern and southern counties had all been infected and were eager for medicine.⁵⁴

In addition to the locals, numerous deaths also occurred among soldiers at the northern border.⁵⁵ By the end of 1612, a list of officials from Hamgyŏng province who had passed away due to the epidemic included a Tosa 都事 (Provincial Inspector, Jr. 5) and a [P'yŏngma] Uhu [兵馬]虞候 (Army Inspector, Sr. 3).⁵⁶ Before receiving the provincial report on the death toll, the central office had heard from displaced people from Hamgyŏng that, 'counties, towns, and neighbouring houses were all infected by the disease, with hundreds and thousands dying'.⁵⁷ Statistics investigated by officials supported this claim that the infection decimated up to 2, 900 people in Hamgyŏng province by the end of 1612. It continued to infect the province and in the two months from the lunar new year to the 22nd day of the second month of 1613, another 120 people from eight towns died of the infection. According to the statistics in 1614, the epidemic

⁵² *Kwanghae-gun ilgi* 26:25A (1613.10.25). Because *Tanghonyŏk* presented similar symptoms to poxes, sometimes diaries would mistake *Tanghonyŏk* for 'tuyŏk 痘疫', literally translated as 'epidemics of poxes', which usually referred to smallpox. Son Ch'ŏnul 孫處訥, *Modang ilgi* 慕堂日記 vol. 5, 1611.4.4, 1612.10.12. Accessed May 5th 2020, <https://diary.ugyo.net/>.

⁵³ Son Ch'ŏnul 孫處訥, *Modang ilgi* 慕堂日記 vol. 5. 1611.2.3.

⁵⁴ *Kwanghae-gun ilgi*17 : 32A (1611.12.29). *Kwanghae-gun ilgi*18 : 160A (1612.5.28).

⁵⁵ *Kwanghae-gun ilgi*20: 70B (1612.10.1).

⁵⁶ *Kwanghae-gun ilgi*21 : 79A (1612. Intercalary 11.17).

⁵⁷ *Kwanghae-gun ilgi* 21:79A (1612. Intercalary 11.17).

outbreak claimed over ten thousand people in the northern borderland.⁵⁸

The outbreak of 1612 frightened even the locals and accelerated their flight. Due to the epidemics, Põnho in Korea retreated to Jurchen territory on the northern side of the Tumen River. An entry in *sillok* noted that the border towns were ‘empty’ as the residents and soldiers stationed there died or fled.⁵⁹ According to the Military Training Command (*Hullyõn Togam* 訓練都監)’s report in the fifth month of 1613, 1,140 soldiers took flight without a trace since the ceasefire of the Imjin War, while the current whereabouts of 504 other deserters were known.⁶⁰ These escaped soldiers likely continued to wander between towns without settling down, so the real populations were likely larger than those registered. As a result, the mobility of the population of the northern provinces left an empty border and facilitated the spread of the epidemic across the peninsula.

Mapping the outbreak and tracing the displacement

The outburst of epidemics in 1612, the fourth year of Kwanghae-gun’s reign, first started from the Six Garrisons (of Hamgyõng province) and gradually spread to the southern regions, thus claiming many thousands of lives. From the autumn to winter and until the spring of 1613, none of the eight provinces was uninvolved.⁶¹

‘*New compilation of epidemic prescriptions*’ (Shinch'an byõgonbang 新纂辟瘟方), a medical text compiled in 1612, recorded the entire epidemic transmission process. In response to the infection, King Sõnjo ordered Hõ Kyun (1546-1615) to gather the physicians at the royal clinic (內醫院 Naewiwon) to compile the text as a medical guide for treating epidemics. Its preface provides clues for understanding the origins and the transmission routes of the epidemic. By scrutinizing this and other evidence, this section

⁵⁸ *Kwanghae-gun ilgi* 21:119A (1612.12.24). *Kwanghae-gun ilgi* 22:40A (1613.2.22). *Kwanghae-gun ilgi* 28:103A (1614.6.25).

⁵⁹ *Kwanghae-gun ilgi* 21: 70A (1612. Intercalary 11.10) 司諫院啓曰: "咸鏡爲道僻在邊遠, 且有癘疫, 人皆厭避, 此實由於國綱解弛、人不畏法而然也。" *Sõnjo sillok* 20: 70B (1612. 10. 1). *Kwanghae-gun ilgi* 20:37A (1612.9.18). 咸鏡一路, 饑饉荐至, 癘疫相仍, 死亡相繼, 邊城一空。

⁶⁰ *Kwanghae-gun ilgi* 26:92A (1613.5.12) 今者盡查前後逃軍, 則自初逃亡, 無據推尋者, 一千一百四十名, 此則決不可推捕。丁酉以後, 逃亡而有居住、有名, 可以推尋者, 五百四名。請依北民刷還例, 令中外部邑, 一一刷出, 毋得一名漏落而知情隱接者, 亦從重科罪, 以重軍政。"

⁶¹ Hõ Chun. *Sinch'an byõgonbang* 新纂辟瘟方, 1613. 序文, “萬曆壬子關北疫癘始自六鎮傳熾于南死者以千數自秋徂冬迄于癸丑春 八路無不然”。

argues that the displaced people of Hamgyŏng played the role of virus carriers and transmitters in the 1612's nationwide epidemic outbreak, and it utilizes historical reports on the epidemics to unveil the routes of displacement.

Firstly, neighbouring Kangwŏn province was also severely struck by the epidemic in 1612, and in the twelfth month, local officials contacted the central court to request the dispatch of doctors to the province.⁶² Kangwŏn province, the southern neighbour with conditions more conducive to agriculture, was a popular destination for displaced people from Hamgyŏng. The proximity also explains why the epidemic appeared quickly in Kangwŏn after the initial outbreak in Hamgyŏng. Around the same time, other displaced people from Hamgyŏng province flooded into the capital, which similarly prompted an outbreak there. Records show that stories of the hardships faced by displaced people reached the ears of central officers at the end of 1612.⁶³ This suggests that there was a significant degree of contact between the displaced people and the local populace of the capital, which formed the transmission route. The widespread infection also posed a threat to the royal palace so the government set up the Agency for Saving the Destitute (Hwarinsŏ 活人署) to quarantine and treat infected officials.⁶⁴ In the crowded and insanitary space of the prisons, it was not long before one infected prisoner transmitted the infectious disease to the rest especially when the weather turned warmer in spring.⁶⁵ The traffic between the capital and other provinces also supported a quick transmission across all the eight provinces in the peninsula by the spring of 1613.⁶⁶ In P'yŏngan province alone, approximately ten thousand people were reported to have died between 1612 and 1614.⁶⁷

⁶² *Kwanghae-gun ilgi* 21:105A (1612.12.12).

⁶³ *Kwanghae-gun ilgi* 21 : 79A (1612. 閏 11.17).

⁶⁴ *Kwanghae-gun ilgi* 21: 108A (1612.12.15). 天時失序，癘疫為災，非但外方皆然，京中亦漸熾發，傳染相繼，死亡頗多，宮城至近之地，將來之虞，不可慮。請令該曹，凡干救療之策，預為講究，依平時，復設活人署，另加救活。申飭五部，染病之人，劃即出置安插，一以防傳染之患，一以盡救活之方。" 答曰："依啓。"

⁶⁵ *Kwanghae-gun ilgi* 28: 64A (1614.5.19).

⁶⁶ Author unknown. *Choya ch'ŏmjae* 朝野僉載. Accessed November 25th 2020, <https://diary.ugyo.net/>.

1612.2, 咸鏡道飢癘疫。自六鎮傳熾于南。死者以千數。至明春八路皆然。分遣侍臣。致祭禱之

⁶⁷ *Kwanghae-gun ilgi* 21:117A (1612.12.22). ○壬子十二月二十二日辛亥政院啓曰："目今癘疫熾發，(非但咸鏡、江原兩道，如京城及諸道，已為傳染，處處皆然。將來之患，亦不止此，不可不預為之備。)《辟瘟方》一書，張數不多，工役易就，速令校書館多數印出，廣布中外，以為救急之地何如?" 傳曰："允。" *Kwanghae-gun ilgi* 28:103A (1614.6.25.) 第於年前厲疫大熾，死亡者幾至萬餘，邊上無人。賊若來侵，難以禦之。

The transmission of this infectious disease of *tanghongyŏk* briefly eased before reaching another peak in 1617. A report by the Border Defence Council depicted the catastrophe of 1617 in Hamgyŏng province:

The starving were desperate for food, and corpses piled up in the streets. People unashamedly abandoned their babies in muddy valleys, left them in tree branches, or threw them off bridges. This was a miserable sight.⁶⁸

Although magistrates established relief facilities, their effects were limited. For example, because of famines caused by a heavy flood in the years around 1617, Jurchens also took refuge in the Korean peninsula. The increasing number of Jurchens who fled to Chosŏn in the famine and epidemic years became visible. A provincial military commander from P'yŏngan Province expressed concern that Jurchens could be seen in the province 'naked and begging for food,' and warned that if food were to be granted to alleviate them, officials would run out of relief provisions for locals and risk further exhausting national resources.⁶⁹ As noted earlier in Figure. 12, private diaries also suggest that the outbreaks in the 1610s lasted until the end of this decade with the most cases around the year 1618, when this outbreak was recorded to have threatened every town on the Korean peninsula.⁷⁰

The report also provides testimony that when northern inhabitants fled their hometowns to avoid the effects of famines and epidemics, they would typically move in two directions, either north to Manchuria or on to Ming China, or south to Kangwŏn province. For example, officials noted that displaced people from Mach'ŏlryŏng 磨天嶺, the southern part of Hamgyŏng province, drifted between Tieling (鐵嶺, part of present-day Liaoning province, China, located to the east of the Liao River) or to Hoeyang (淮陽, present-day Kangwŏn province) to pursue a new living.⁷¹

⁶⁸ *Pibyŏnsa Tŭngnok*. 1617.3.8.

⁶⁹ *Kwanghae-gun ilgi* 39:22B (1617.2.13). Bohnet, *Turning towards Edification*, 86.

⁷⁰ Chang Hŭnghyo 張興孝, *Kyŏngdang ilgi* 敬堂日記, vol. 2, 1618.1.20. Accessed November 25th 2020, <https://diary.ugyo.net/>. 是時。疫癘遍熾州縣。

⁷¹ *Pibyŏnsa Tŭngnok* [Records of the Border Defense Council] 備邊司謄錄 1617.3.8.

Besides times of epidemics there was a general trend for people from Hamgyŏng to take flight in one of two directions during years of hardship: one was to the southern regions of the Korean peninsula such as Kangwŏn province or even further to the south; the other was to cross the border into the Manchuria area.⁷² The tribute route of Pŏnho to the capital could provide some clues for the way that the displaced people might have taken, because the main road to Kangwŏn province was blocked by the government in case of displacement.⁷³ When Jurchen envoys presented themselves at the capital before the Chosŏn monarch, they started from areas near the Tumen River, went to Kyŏngsŏng county, where they boarded boats, and they sailed along the eastern coast down Kangwŏn Province to Yangyang. From there, they turned inland to the capital Hansŏng as shown in Figure. 16.⁷⁴ Because of the talented sailing skills, some of the northern people could even arrive further south. For example, household registers from Ulsan, Kyŏngsang province, suggests some families came from the northern town of Kilchu in Hamgyŏng,⁷⁵ while the 1687 household register of Ich'ŏn county in Kangwŏn province also records that one resident's grandfather was originally from Puryŏng (富寧), one of the Six Garrisons.⁷⁶

Secondly, displaced people also fled to the north into Jurchen territories and Liaodong. In addition to those who fled themselves, it is worth noting that other villagers were captured by Jurchen raiders.⁷⁷ The disappearance of Pŏnho in the Six Garrisons was as if the area had lost its 'fence' or the 'lipes that protected the teeth.'⁷⁸ Although the Chosŏn government continued to sue for the repatriation of Chosŏn captives and displaced people, the Jurchens still took them in to use as bargaining chips to acquire

⁷² *Sŏnjo sillok* 135: 21A (1601. 3.19). 六鎮人民, 流出南關者甚多 *Sŏnjo sillok* 142:16B (1601.10.28) 特進官尹墩曰: "臣奉使往來嶺東。其處以北道人刷還事, 民情極爲騷擾矣。" 上曰: "江原道, 今年農事何如?" 墩曰: "未秀而早霜, 凶荒莫甚。聞北道亦然云。兩處皆同, 取食無路, 故一聞刷還之命, 有若鼎沸。" 이옥 Lee Uk, 17-18 세기 범월사건을 통해 본 함경도 주민의 경제생활 17-18 segi pŏmwŏl sagŏn ūl t'onghae pon Hamgyŏng-do chumin ūi kyŏngje saenghwal, 역사학연구 *Yŏksahak yŏn'gu* 38 (2010), 148.

⁷³ *Sŏnjo sillok* 135: 21A (1601. 3.19).

⁷⁴ Bohnet, *Turning towards Edification*, 40.

⁷⁵ *Ulsan-bu hojŏk taejang* 蔚山府戶籍大帳 [Ulsan household register]. Kyujanggak Institute for Korean Studies (Seoul National University). Kyu14986. 1609.

⁷⁶ Han Sang-woo 한상우, '17 segi Pukkangwŏn saram tŭl: Ich'ŏnbu hojŏk ūi pŏnyŏk kwa chŏnsanhwa' 17 세기 북강원 사람들: 이천부 호적의 번역과 전산화[Introduce and Translation of the Ich'ŏn Household Register], *Kangwŏnhak yŏn'gu* pogo 12, 2020. *Ich'ŏn-bu hojŏk* 伊川府戶籍[Ich'ŏn county household register], 1687, Kangwŏn yŏn'gu center.

⁷⁷ Yi Inyŏng 이인영, 'Kŏnju kijŏng togi 建州紀程圖記', *Chindan hakpo* 진단학보 10 (1939): 192; *Sŏnjo sillok* 187:18B (1605.5.29). *Sŏnjo sillok* 193:11B (1605.11.17).

⁷⁸ Bohnet, *Turning towards Edification*, 82.

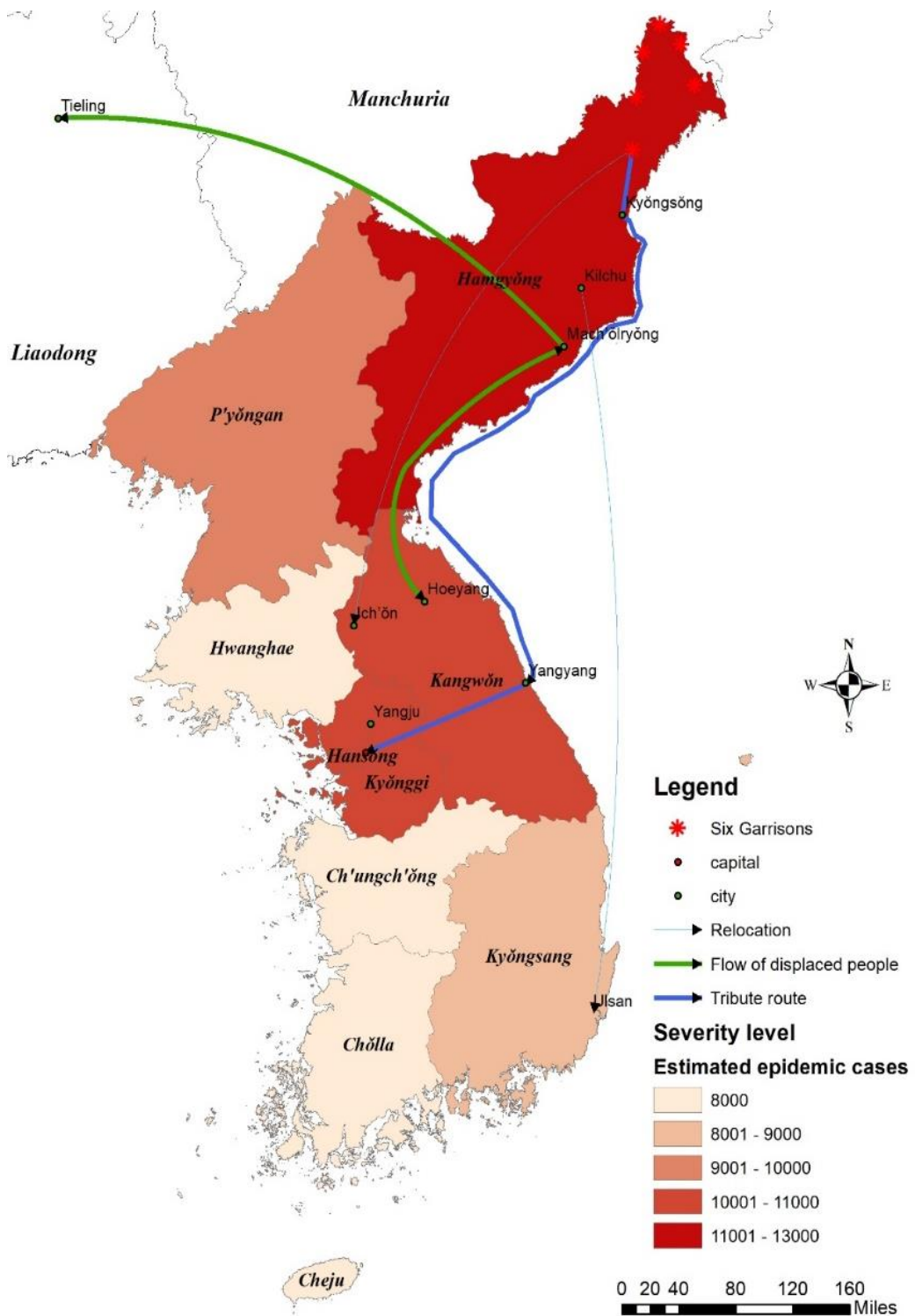
precious goods from Chosŏn such as money, ginseng, and cloth, so few were sent back.⁷⁹

Therefore, epidemic outbreaks became another significant factor forcing the displaced people either to cross the northern border or to head to the south for a better living. The flow of displaced people and the epidemic stricken areas during the 1610s' outbreaks, as seen in Figure. 16, suggest that the most severe regions overlapped the areas where the Hamgyŏng displaced people preferred to go, such as Kangwŏn, the capital, and Kyŏngsang province. The epidemics originated in the northern part of Hamgyŏng, then spread to its neighbour Kangwŏn province and on to the Kyŏnggi area where the capital Hansŏng was located and Ch'ungch'ŏng province. From there, the epidemics spread to Kyŏngsang province in the south-east. Despite having been a nationwide epidemic, it is striking that the epidemic transmitted relatively faster along the eastern coastline from the Six Garrisons to Kyŏngsang province as compared to spreading to the western parts of the peninsula. Given the higher population density in the capital zone, the Hansŏng area and even Kyŏnggi province were almost always epidemic hotspots.⁸⁰ Hamgyŏng province was a frequent outbreak site in later decades. Its severe living environment and geography reveals the intractability of displacement routes in that northern space, and these factors caused epidemic transmission patterns in subsequent decades. For example, outbreaks of the 1630s followed a similar transmission pattern, as seen in Figure. 17.

⁷⁹ *Sŏnjo sillok* 69:17A (1595.11.20); *Sŏnjo sillok* 209:9B (1607.3.22); *Sŏnjo sillok* 193:11B (1605.11.17).

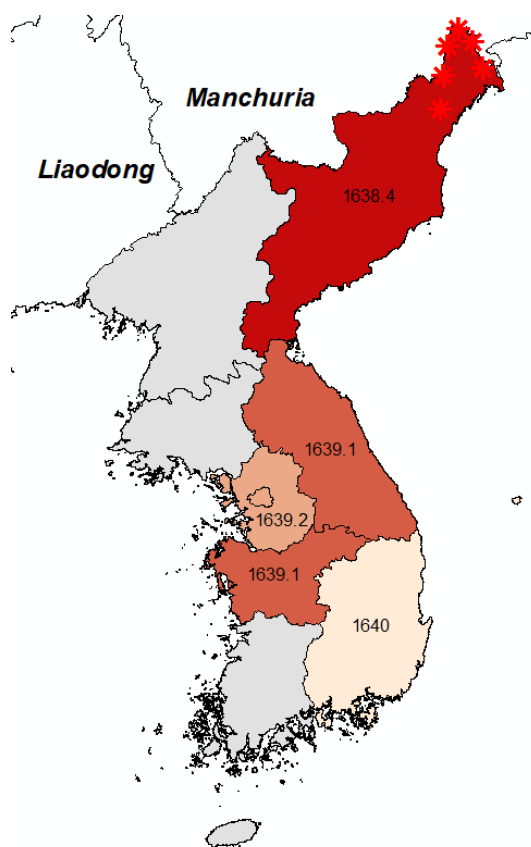
⁸⁰ In the 1620s, several towns in P'yŏngan province reported famines and epidemics. Manp'o 滿浦 was one representative case. It was located in the boundary area at the Amnokkang River 鴨綠江, which demarcated the Korean peninsula from the Chinese continent. In 1623, the Six Garrisons, Hamgyŏng province, and the capital all reported epidemics. Another epidemic peak occurred in 1638-1640: 1638. 4 in Hamgyŏng province, 1639.1 in Kangwŏn province and Ch'ungch'ong province. *Sillok* reports that 'the epidemics originated from the northern border. Along with famines, the epidemics became severer'. The outbreak reached the capital by 1639.2, Kyŏngsang province by 1640. *Injo sillok* 2:17A (1623.6.23); *Injo sillok* 8:11B (1625.1.17); *Injo sillok* 8:36A (1625.3.2); *Injo sillok* 8:38B (1625.3.5). *Injo sillok* 2:17A (1623.6.23); *Injo sillok* 6:31A (1624.7.12); *Injo sillok* 6:37B (1624.7.23); *Injo sillok* 38:4A (1639.1.17).

Figure 16. Map of epidemic transmission and displacement, 1611-1614



The Korean peninsula is coloured according to the reporting time of epidemics. The flow of displaced people is represented by the green lines. The tribute routes of Põnho is indicated by the thicker blue lines while the light blue lines indicate the relocation of northern people based on household registers.

Figure 17. Map of epidemic spread and transmission in the Korean peninsula, 1638-1640



Though displaced people from northern Hamgyõng province tended to be the initial virus carriers, the fear of the outbreak of *tanghongyõk* prompted populations all across Chosõn to flee their homes and hide in the wild. The visibility of the disease, which manifested itself in red blotches all over the body, and the high prevalence and lethality of the epidemic likely played a direct role in prompting this drastic response. Local diaries illustrated the plight of elite families and their perceptions of this frightening epidemic. The experiences of one elite family are depicted in a diary from 1615.⁸¹ Many desired to

⁸¹ Chang Hũnghyo 張興孝, *Kyõngdang ilgi* 敬堂日記, vol. 2. 1615.1.4, 1615.6.18. Accessed November 25th 2020, <https://diary.ugyo.net/>

flee their communities, in which the epidemic was rampant, and seek refuge in a safe place, but they mistook a wild and isolated environment for such an ideal refuge.⁸² In reality, the wilderness tended to be unsanitary and increases in movement provided more possibilities for exposure to various nationwide epidemics.⁸³ This communicable movement caused new symptoms to arise in addition to typhus (if that was the disease), such as diarrhoea, dysentery, or E. coli. In one case, a family went to live in a dilapidated house near a well; however, soon afterwards the whole town started to suffer from diarrhoea. The water in the well might have been contaminated to the extent that it resulted in an outbreak of dysentery in the summer of 1617.⁸⁴ The elite family were fortunate enough that they could still prepare food before departure, while other starving displaced people were forced to scavenge for weeds, roots, and bark. In the long term, malnourishment also lowered their disease resistance.

The widespread epidemics of the 1610s also had profound impacts on Chosŏn society. Villages were in a state of depression and desolation as infection alienated people from their communities and even significantly harmed relationships within kinship groups. Upon hearing that a relative was afflicted with the disease, none would dare enter their house; if any cases were reported in a community, then visitors from outside would refuse to enter the town.⁸⁵ When a town was struck by an epidemic, all rituals were cancelled and even the families of the dead could not attend their funerals.⁸⁶

Responses to the epidemics and displacement

Although the epidemics afflicted the entire peninsula, different regions showed different capacities for recovery, so the central government played the role of mediator to

⁸² Kim T'aekryong, *Sŏnjo chosŏng tangillok* vol.3. 1617.4.27.

⁸³ Another outbreak of smallpox 痘疹 quickly became inveterate in 1619. Kim Yŏng, *Kyeam illok* vol.3. 1619.4.28, 1619.5.1, 1619.5.6.

⁸⁴ Kim Yŏng, *Kyeam illok* vol.3, 1617.6.25.第三兒悅之。自昨患赤白痢。可憫可憫。
Kim T'aekryong, *Sŏnjo chosŏng tangillok*, vol. 3. 1617.6.28, 7.2, 7.12, 7.18, 8.27.

⁸⁵ Kim T'aekryong, *Sŏnjo chosŏng tangillok* vol. 3. 1617.4.24, 4.27.

⁸⁶ Kim Yŏng, *Kyeam illok* vol. 3, 1618.1.11, 2.4, 2.27, 3.13, 4.1.

Son Ch'ŏnul 孫處訥, *Modang ilgi* 慕堂日記 vol. 5. 1618.11.1, 12.27, 12.29.

reallocate medical and food resources within the whole country.⁸⁷ The government transported medicine, prescriptions, and crops from the capital and from the south to the north. The capital, as one epidemic high-risk space, also witnessed epidemic relief activities, including the re-establishment of sanatoria and religious ceremonies. The Agency for Saving the Destitute (活人署 Hwarinsö) was abandoned during the East Asian War and reconstructed in the western and eastern suburbs of the capital to accept and treat infected officers from any of the Six Ministries (Yukcho 六曹). The Hwarinsö functioned as a quarantine area.⁸⁸ The capital also prepared religious spaces. In the northern suburbs lay an altar devoted to epidemic spirits where officials prayed for the elimination of the epidemics.⁸⁹ The central area of the capital was afflicted by the epidemics, but this was balanced by its outer suburbs, which were set up for medical and religious purposes. Such spatial arrangement brought mixed results. The effects of the epidemics were temporarily alleviated, but the diseases were not eradicated.

Allocating medicine and provisions

In contrast to the convenient location of the capital, one factor that limited relief and aid in Hamgyöng province was its remote geographical location.⁹⁰ This limited transportation meant that the news of famine and displacement took a long time to arrive in the centre.⁹¹ The difficulties in obtaining news meant that the court was often ignorant of the goings-on in this area. Evidence of this can be seen in a complaint from the governor of Hamgyöng reporting that ‘it is pitiful that the court has provided no aid to

⁸⁷ For famine relief methods in the eighteenth and nineteenth centuries, see Anders Karlsson, ‘Famine, Finance and Political Power: Crop Failure and Land-Tax Exemptions in Late Eighteenth-Century Chosön Korea’, *Journal of the Economic and Social History of the Orient* 48, no. 4 (1 January 2005): 552–92; Anders Karlsson, ‘Royal Compassion and Disaster Relief in Chosön Korea’, *Seoul Journal of Korean Studies* 20, no. 1 (2007): 71–98.

⁸⁸ *Kwanghae-gun ilgi*21:108A (1612.12.15); *Kwanghae-gun ilgi*21:109A (1612.12.16). *Kwanghae-gun ilgi*21:112A (1612.12.19).

⁸⁹ Ceremonies of sacrifice were held to serve spirits of the epidemic. *Kwanghae-gun ilgi*21: 41A (1612.11.16).

⁹⁰ Karlsson has discussed the inequality of land tax-exemption by examples from the famine periods in Chosön society, arguing that the proximity to the capital -political centre was one determining reason for unduly large exemptions in Kyönggi province and social-economic and local political reasons for more relief in Ch’ungch’öng province. Karlsson, ‘Famine, Finance and Political Power’, 585.

⁹¹ Kang Sökhwa 강석화. *Chosön hugi Hamgyöng-do wa pukpang yöngt'o üsik* 조선 후기 함경도와 북방영토의식. Seoul, 2000, 19-22.

Hamgyŏng province as if it were a forgotten and abandoned area'.⁹² This factor also inhibited the government from responding quickly to relieve displaced people and proactively preventing the mass spread of epidemics. A confession from the Ministry of Taxation (Hojo 戶曹) in 1617 stated that despite numerous reports on the arduousness of life in the north, they had never clearly known the severity of the famines in Hamgyŏng province; they had only grasped bits and pieces of the situation via displaced people.⁹³ This implies that the Ministry of Taxation continued to demand the same level of crop collection in this region without further consideration of the quality of the harvest and the essential needs of the locals, which slowed the policies to relieve famine victims.

In response to the 1612 reports of severe infection, the central government distributed prescriptions and medicine from the capital to the stricken regions. As noted above, the king ordered the compilation of new epidemic prescriptions that were easier for commoners to understand and distributed them to local officials nationwide. Traditional Korean medicine composed of *materia medica* was sent to Hamgyŏng province.⁹⁴ Because the distribution at first was far from local needs, the central medical bureaus prepared more for the second shipment in late 1612.⁹⁵ Thus, these efforts helped to fulfil the distribution of medical resources.

To alleviate the possibility of famines occurring in tandem with the epidemics, the government took measures to transport southern provisions to the north, but orders went unfulfilled each time due to a lack of regional cooperation. In an example from 1613, three to four hundred *sŏk* (approximately 27,000-36,000 litres) of tax rice from the southern provinces (Yŏngnam 嶺南) were granted to Hamgyŏng province to relieve the poor.⁹⁶ However, Yŏngnam claimed that it had to prepare for unpredictable Japanese

⁹² *Kwanghae-gun ilgi* 24:16A (1613.6.6).

⁹³ *Kwanghae-gun ilgi* 39:100B (1617.4.8).

⁹⁴ *Kwanghae-gun ilgi* 21:117A (1612.12.22). 壬子十二月二十二日辛亥政院啓曰: "目今癘疫熾發, (非但咸鏡、江原兩道, 如京城及諸道, 已爲傳染, 處處皆然。 將來之患, 亦不止此, 不可不預爲之備。) 《辟瘟方》一書, 張數不多, 工役易就, 速令校書館多數印出, 廣布中外, 以爲救急之地何如?" 傳曰: "允。"

⁹⁵ *Kwanghae-gun ilgi* 59:4B (1612.11.1). 備邊司啓曰: "前因咸鏡監司狀啓, 本道軍民救療藥材, 已爲入送, 而其數不敷, 不足以徧霑一道。 且聞道內癘疫, 至今猶熾, 寢息無期, 誠爲憫惻。 好合茵陳丸, 令兩醫司, 優數劑造, 急速馳送何如?" 傳曰: "允。" *Kwanghae-gun ilgi* 21:119A (1612.12.24). ○壬子十二月二十四日癸丑咸鏡監司狀啓, 本道癘疫, 前後死亡, 多至二千九百餘名。 禮曹啓請, 下送藥物各別救活, 妻子等令本官題給食物, 復戶。

⁹⁶ There were 15 *tu*/mal 斗 in a *pyŏng sŏk/sŏm* 平石 (90 l.), and 20 *tu* in a *chŏn sŏk* 全石 (120 l.), and each *tu* was 6 litres. The value of a *sŏk* varied between 90 and 120 litres. *Kwanghae-gun ilgi* 24:16A (1613.6.6).

piracy and small boats could not sail far on a dangerous sea, thus the request for transregional provision was refused.⁹⁷ The second example, a cross-regional relief project, collapsed again in another epidemic year. In the third month of 1617, Kwanghae-gun quickly responded to the crisis and approved the dispatch of provisions, the nomination of a central officer to organise relief efforts, the reduction of tribute and salt tax, and the establishment of two rescue houses.⁹⁸ Half of the rice taxation from Kyöngsang province and Kangwön province was to be transported to Hamgyöng province; however, in the eighth month of 1617, the provincial governor of Hamgyöng was still petitioning the central court to dispatch the promised official who was to supervise and operate the relief effort.⁹⁹ No province would recommend an officer or offer provisions. The provinces of Yöngnam continued to reject help, protesting that their food supplies were insufficient to even meet their own needs. Despite an official order from the Ministry of Taxation, Yöngnam continued to avoid fulfilling their responsibilities well into the subsequent year of 1618.¹⁰⁰ Regardless of the results, the attempts at regional resource allocation to address the epidemics were meaningful.

Displaced people policy: return or compromise?

While the medicine and food distribution were to treat the epidemics, the Chosön government implemented a return policy towards the displaced people and banned their relocation. Nevertheless, displacement became long-term depopulation in the north after the Imjin War. The displacements became permanent and remained intractable, because of the contradiction between the aims of the northern population, who needed sufficient material relief and stable living bases, and the Chosön government, who were more concerned with national security. These concerns were multiple, such as the economic benefits of sending settlers to the northern frontier, the military security of mitigating the threat from the Jurchens, the maintenance of social and political stability near the border, as well as the extraction of wealth from the population. Of all these factors, the lack of

⁹⁷ *Pibyönsa tūngnok*. 1617.9.6.

⁹⁸ *Pibyönsa Tūngnok*. 1617.3.8; *Kwanghae-gun ilgi* 39:100B (1617.4.28).

⁹⁹ *Kwanghae-gun ilgi* 41:33A (1617.8.29).

¹⁰⁰ *Pibyönsa Tūngnok*. 1617.9.6. *Kwanghae-gun ilgi* 48:17B (1618.10.9).

military forces caused by the depopulation was the most urgent concern.¹⁰¹

Therefore, the government enforced a return policy in the post-war period. King Sŏnjo implemented a return policy by dispatching censors (*swaehwan ōsa* 刷還御史) to the Six Garrisons to oversee the enactment of the return policy. The censors were also tasked with regulating the behaviour of the local administration who unlawfully occupied private farmlands and exacted excessive taxes on the populace.¹⁰² The censors also investigated and registered the displaced and returned people of Hamgyŏng province, regardless of their social status, in a booklet. However, such information as the locations of returnees, their names, and their occupations were often not clear and many records were missing.¹⁰³ The phenomenon of the ‘empty’ northern border also prompted the government to strengthen legislation on returning displaced people in 1602, when King Sŏnjo issued an edict ordering that not only were escapees to be punished but county officials were also to be held responsible for their escape. The edict mandated that officers who had allowed the escape of more than three families or if their carelessness led to the escape of more than two displaced people, the county magistrates would be deposed and the assistant officers would be docked three years of salary in the event that misconduct was discovered. If the officer was examined to have taken a bribe from the escapees, their entire family were to be exiled to the border areas.¹⁰⁴

The compulsory return policy, nonetheless, interrupted the social lives of returnees. ‘Even if elites and their children have built new families and settled in their new land... wives, concubines, and the entire family should move back together’.¹⁰⁵ Those who had resettled were unwilling to return to their hometowns. The provinces in which northern people resettled also received new sources of labour and tax revenue so

¹⁰¹ *Sŏnjo sillok* 34:32A (1601.2.24). Kwanghaegun ilgi 41:33A (1617.8.29).

¹⁰² *Sŏnjo sillok* 30:21A (1592.9.25).

¹⁰³ *Sŏnjo sillok* 171: 4B (1604.2.10).

¹⁰⁴ *Sukyo chimnok* 受教輯錄 [Compendium of teachings], byŏngjo, yumin. 1602, the 35th year of Sŏnjo’s reign. Such mandates emphasized the cooperative responsibilities of both the officials of the regions to which the displaced people fled and the officials of the regions from which they originated. The supervision of escaped and returned people became a standard to measure the competence of official duties, in that, once escapees were discovered, punishment would extend to the officials involved, and the implications of this would further affect their innocent families.

¹⁰⁵ *Sukyo chimnok* 受教輯錄 [Compendium of teachings], byŏngjo, yumin. 1602.

that they had little motivation to assist in enacting the return policy. Some returnees had no sooner arrived in their hometowns than they fled again, because they were also concerned about the threat of invasion from the Jurchens. Such dilemmas remained unsolved, and the displacement crisis continued.¹⁰⁶

While the implementation of the return policy was slowed by famine and epidemics, the epidemic outbreak in 1617 finally precipitated a change in this policy. As noted above, the further afield displaced people took flight, the wider the epidemics were transmitted. Likewise, returnees back to the north could also worsen the epidemic situation there. Confronted with the widespread epidemics, central authorities reached a compromise with escapees in which the government was to prioritize medical treatment and relief efforts and would postpone the return of displaced people.¹⁰⁷ In 1617, Hansŏngbu in Seoul and other provinces were ordered to recommend responsible and talented individuals, with the assistance of local officers, to visit all families in the region and produce a register of displaced people as a reference for the future implementation of the return policy. These officials then waited for the lives of displaced people to become stable by leaving them where they were and not allowing them to move further. Meanwhile, they were also ordered to observe the situations in their hometowns so that the displaced people could be sent back once the famines and epidemics had faded.¹⁰⁸ In this way, the government postponed the return of displaced people until these issues had calmed down. The government then shifted their attention to registering the displaced people in preparation.

Nonetheless, this interim measure left outstanding contradictions unresolved. On the one hand, the government insisted on returning the displaced northern people following the epidemics without further consideration of their needs. The Office of the Censor-General (Saganwŏn 司諫院) attributed the persistent displacement issue to the laws not being powerful enough to deter displaced people.¹⁰⁹ This suggests the core of the government's approach to solving displacement was to restrict these people within their

¹⁰⁶ *Sŏnjo sillok*202: 21B (1606.8.27). *Sŏnjo sillok*190:1A (1605. 8.1). *Injo sillok*7:3B (1624.9.6).

¹⁰⁷ *Sŏnjo sillok*167: 6B (1603.10.16).

¹⁰⁸ *Pibyŏnsa Tŭngnok*. 1617.8.17.

¹⁰⁹ *Kwanghae-gun ilgi*21: 70A (1612. Intercalary 11.10).

original living space, such as blocking the routes along which northern displaced people tended to flee and preparing for potential incursions from Jurchens or regional revolts by locals.

On the other hand, the essential needs of people were not satisfied so they preferred to seek more suitable living conditions or to join relatives rather than remain in their inhospitable home regions, which were frequently struck by calamities. The limited environmental suitability in the northern border area caused a vicious cycle of disasters, famines, epidemics, and displacement to repeat in the seventeenth century.¹¹⁰ As official attention began to be drawn to more pragmatic concerns such as administration, finance, and the transition in lifestyles from farming to commerce, handicrafts, and mining, the government gradually abandoned the compulsory return policy in the eighteenth century.¹¹¹

Conclusions

This chapter adds a pre-modern case study of internal displacement to the current ongoing discussion on climate migration. The common element is that the northern displaced people from Hamgyŏng province also took into consideration their living environment in their final decision to move to other places.¹¹² Environmental factors related to a myriad of geographic conditions led to the vulnerability of Hamgyŏng people to epidemics in early seventeenth-century Korea. The environmental degradation induced by the Imjin War and the subsequent post-war disasters left the landscape of Hamgyŏng province largely unfruitful and depopulated as the male residents were dispatched as soldiers and the female residents were shouldered with greater burdens in maintaining life and paying taxes. Socio-economic factors were also influential in the decision by an increasing number of displaced people to take flight when the government weakened by the war was unable to provide relief but requested heavy military duties from this

¹¹⁰ Byun Juseong, *Chosŏn hugi yumin yŏn'gu*, 16-17.

¹¹¹ Byun Juseong, *Chosŏn hugi yumin yŏn'gu*, 158.

¹¹² Schwerdtle, Patricia *et al.* "Health and migration in the context of a changing climate: a systematic literature assessment," *Environment Research Letter* 15(2020); Piguet, Etienne, Kaenzig, Raoul, Guelat, Jeremie, "The uneven geography of research on 'environmental migration,'" *Population and Environment* 39 (2018): 357-83; Gemenne, François, Blocher, Julia, "How can migration serve adaptation to climate change? Challenges to fleshing out a policy ideal," *The Geographical Journal* 183(2017): 336-47.

‘encounter zone.’ These factors combined and exhausted Hamgyōng people and drove them to leave, thus emptying the northern frontier and spreading epidemics.

As spatialization is a useful dimension to study environment-induced issues, this chapter utilizes the approaches of medical geography and spatial epidemiology to map the flow of displaced people and epidemic transmission and uncovers their possible relations in the early seventeenth-century Korean peninsula. Outsiders and immigrants have often been blamed for introducing new microbes and spreading epidemics in a transnational context. For example, smallpox in America was believed to have been brought by the Europeans; they were blamed for bringing new viruses to the New World and for causing continuous epidemics.¹¹³ Similarly, continuous infectious diseases appeared in the region of the Six Garrisons and the displaced people there, who were very vulnerable to epidemics, transmitted the epidemics to the areas where they moved—the eastern coastline provinces of the peninsula and the capital zone. From there, the epidemics spread from high population density regions to the western part of the country via tightly-knit transport networks connecting the capital to all regions. Thus, the entire Korean peninsula was exposed to the epidemics. Such a transmission pattern was seen repeatedly in subsequent decades after the 1610s, because the entire peninsula was undergoing long-term rehabilitation until the late 1630s. The overlapping patterns of displacement and the routes of nationwide epidemic transmission are clearly seen in the government records of the time.

When the epidemic struck the entire country, the Chosŏn government took action to relocate resources and return displaced people. To the epidemics’ most afflicted areas in the north, the king distributed medicines from the central court and ordered the south to send food stores to the north. These policies had limited effect. As any movement of people might spread the epidemics, the government put a pause on the return policy of internally displaced people and allowed them to stay where they were during epidemic years. In the subsequent decades, nonetheless, the Chosŏn government insisted on a return by relocating displaced people back to their hometowns or other places designated by

¹¹³ Alfred W. Crosby, *The Columbian Exchange: Biological and Cultural Consequences of 1492*, Greenwood, 2003; William McNeill, *Plagues and Peoples*, 1st edition, Anchor, 2010; Jared Diamond, *Guns, Germs, and Steel: The Fates of Human Societies*, W. W. Norton & Company, 2017.

officials. Such a compulsory policy stimulated conflicts between the people and the government as well as between human needs and environmental sustainability in vulnerable lands. This chapter helps us to think about how to relieve displaced people and allot resources in a time of epidemics.

Chapter 4 Managing Epidemics in Pre-modern Korean Prisons

The government of South Korea granted amnesty to over 3,000 convicts before Christmas of 2021 and claimed that the amnesty would promote reconciliation and consolidate national power to help overcome the national crisis caused by the Covid-19 pandemic. Release of the ‘condemned’¹ in times of epidemic outbreaks is a practice that dates at least back to the Chosŏn dynasty. This chapter examines the administration of prisons during epidemic outbreaks in seventeenth-century Chosŏn Korea, arguing that there was a gradual acceptance and legitimization of the ‘temporary release’ of prisoners (保放 *C. baofang*, *K. pobang*) as a method of managing outbreaks in prisons throughout the seventeenth century and even into the early eighteenth century. Scholarship seldom distinguishes the legal terms used in the Chosŏn dynasty: ‘amnesty’ (大赦 *taesa* or 赦免 *samyŏn*), ‘pardon’ (恩赦 *ŭnsa*) after a judicial inquiry (疏決放免 *sogyŏl pangmyŏn*), and temporary release, because on most occasions prisoners were released, and they often did not return to prison. Aside from temporary release for epidemics, amnesties were granted twice or three times a year, when those who lost their parents needed to go home to fulfil the virtue of filial piety or when a new king ascended to the throne and released convicts who had committed lesser crimes. By contrast, a judicial inquiry did not necessarily lead to a complete release but kings tended to appreciate the image of themselves as offering mercy and thereby granted discretionary pardons to some individuals after discussion with ministers at the court.²

According to various Chosŏn laws and their implementation, ‘temporary release,’ as discussed in this study, was similar to the concept of bail, that is, it required a guarantor, who usually lived close to the prisons, before release was granted, and the prisoner still had to return to prison later, although no existing records mentioned their

¹ Foucault first coined the expression ‘the body of the condemned’ to refer to those who were punished by penal death through public execution in France, while Siena refers to infected prisoners as ‘rotten bodies’. See Michel Foucault, *Discipline and Punish: The Birth of the Prison* (Vintage Books, 1995), 3–31; Kevin Siena, *Rotten Bodies: Class and Contagion in Eighteenth-Century Britain*, 2019.

² Cho Yunseon 조윤선, ‘Chosŏn sidae samyŏn, sogyŏl ūi unyŏng kwa pŏpchejŏk, chŏngch’ijŏk ūiŭi 조선시대 사면, 소결의 운영과 법적, 정치적 의미’, *Chosŏn sidaesa hakpo* 조선시대사학보 38 (2006.9): 39–78.

incarnation after returning to prison. Temporary release first appeared in the *Tang Code* (唐律疏議 624) to grant bail to those who denied their crimes, albeit under torture.

Thereafter, temporary release became a fixture in the following decades and was adopted by societies, such as ancient Korea and Japan.³ Gradually, it was targeted at several groups of people in the Chosŏn dynasty: the sick, prisoners whose parents died, minor criminals during natural disasters, and during famines and epidemics.⁴

Any investigation into the criminal system precipitates a discussion of Michel Foucault's discourse on discipline and punishment, which describes the birth of modern prisons in France and adds a political dimension to the penal system. Thus, as well as being a medically related practice for sick convicts, temporary release may also be understood as a 'mechanism of power' in the Foucauldian sense, by which Chosŏn authorities maintained their regime and regulated the behaviour of individuals within the social body. Foucault describes the violent and chaotic practice of public torture as punishment for regicide in the mid-eighteenth century and considered it as resulting from a 'mechanism of power,' by which the power of the sovereign was displayed.⁵ In addition, he argues, this mechanism of power could also operate in ways that appeared benevolent, such as when public torture was replaced with chain gangs as a form of supposedly more lenient punishment in the early nineteenth century. For Foucault, these varying displays of power were part of a trajectory of subjugation that eventually led to the modern prison system. Foucault later coined the concept of biopolitics to denote the exercise of state power over people's lives and bodies and attributed biopolitics to the European mercantilist states of the eighteenth century.⁶ Ehlers has proposed the notion of biopolitics in early modern Japan to suggest that at least some parts of Japan strengthened state power over people's productive bodies as a result of increasing

³ Ishii Ryōsuke 石井良助, *Edo no keibatsu* 江戸の刑罰 (Tōkyō: Chūō kōronsha, 1964); Ōtsu Tōru 大津透, *Ritsuryōsei towa nanika* 律令制とはなにか (Tōkyō: Yamakawa shuppansha, 2013); Dani Botsman, *Punishment and Power in the Making of Modern Japan* (Princeton University Press, 2005), 66–67.

⁴ Wŏn Chaeyŏn 원재연, 'Chosŏn sidae pobang ūl chŏn'gu wa kŭ silt'ae 조선시대 보방의 전구와 그 실태', *Pŏpsahak yŏn'gu* 법사학연구 33 (2006.4): 6.

⁵ Michel Foucault, *Discipline and Punish: The Birth of the Prison* (Vintage Books, 1995).

⁶ Michel Foucault. *The Birth of Biopolitics: Lectures at the Collège de France, 1978–1979* (New York: Picador, 2010).

mercantilism in the decades before the Meiji government adopted Western models of statecraft and public hygiene.⁷ There are some possible links between biopolitics and the rise of mercantilism during the late Chosŏn dynasty but they are not discussed here because the deeper reasons warrant a study in their own right. Rather, I focus on observing the intensified state power over various vulnerable groups – the condemned, the infected, and the displaced in pre-modern Korea.

Around the same time as the period of French history discussed by Foucault, public torture and execution also existed in Chosŏn Korea, and we can likewise see this as an attempt to show state dominance over the condemned bodies of criminals, albeit with the caveats mentioned above. Similarly, there were apparently benevolent actions taken by the Chosŏn state in the context of the penal system, such as the release of convicts through amnesties. Release was an act that appears to entail a loss of state power over the bodies of prisoners, but it was nonetheless, as I will show, intertwined with the operation of state power. The temporary release of infected and grandly sick prisoners only became an acceptable act after a long period of outbreaks and heated debates. However, whether to grant bail was still determined by the Chosŏn kings and ministers, and those convicts who committed heavy crimes such as violation of rituals or treason against king and state never had any chance to be freed, despite their infection.

Of course, epidemic outbreaks in prisons were partially caused by the overcrowded and dirty environments. A study of the relation between prison and epidemics also intersects with modern scholarship on prisoners and illness. Inside jails, prisoners would suffer torture and illness, and once being released, they would struggle to survive because of bias towards their criminal record.⁸ The stigma of imprisonment seems universal and is obvious from the names given to them, such as ‘rotten bodies,’

⁷ See Maren A. Ehlers, *Give and Take: Poverty and the Status Order in Early Modern Japan* (Cambridge, Massachusetts and London: Harvard University Asia Center, 2018), 251.

⁸ Kevin Siena, *Rotten Bodies: Class and Contagion in Eighteenth-Century Britain*, 2019; Albrecht Classen, *Freedom, Imprisonment, and Slavery in the Pre-Modern World: Cultural-Historical, Social-Literary, and Theoretical Reflections* (Walter de Gruyter GmbH & Co KG, 2021); Sasha Turner Bryson, ‘The Art of Power: Poison and Obeah Accusations and the Struggle for Dominance and Survival in Jamaica’s Slave Society’, *Caribbean Studies* 41, no. 2 (2013): 61–90; Bruce Western, ‘Inside the Box: Safety, Health, and Isolation in Prison’, *The Journal of Economic Perspectives* 35, no. 4 (2021): 97–122.

albeit in seventeenth and eighteenth-century Britain.⁹ Thus the space of prisons provides good examples for studies on social justice, governmentality, and medicine.¹⁰

Within Confucian discourse in East Asian history, convicted criminals, conceived of as transgressors against social order and juridical solemnity, drew little attention but were remembered when kings needed to reinforce their hegemony or to demonstrate their virtue in order to prove their fitness to rule. Throughout the history of China, relieving prisoners (恤囚 C. *xuqiu*, K. *hyulgu*) was an important element in the Chinese prison system and a major reason for release was that the central court could show benevolence in legislation and extra-legal compassion granted towards prisoners (法外施仁至意).¹¹ A gradual but steady alleviation is also central to most histories of Tokugawa punishment.¹² Accordingly, any kind of relief of prisoners was categorized by the Chosŏn government as resulting from the kings' generosity and benevolence, and this was the political framework through which such acts were understood during the Chosŏn dynasty.¹³ The majority of the existing scholarship on criminals in Chosŏn history tends to follow this schematic. As such early attempts to treat sick prisoners were viewed as prisoner relief, including amnesties and pardons, while prisons were described as places to educate and cultivate people, although studies also unveil the poor living conditions that existed.¹⁴ However, the lack of studies that provide an

⁹ Siena, *Rotten Bodies*.

¹⁰ Shahid M. Shahidullah, *Comparative Criminal Justice Systems: Global and Local Perspectives* (Jones & Bartlett Publishers, 2012).

¹¹ Wang Chaoqun 王超群, 'Cong Xingbu jianyu kan Qingdai xuqiu sixiang yu yuzhi shijian 从刑部监狱看清代恤囚思想与狱制实践', *Lishi dang'an* 历史档案, no. 2 (2021): 93–102; Xue Yang, 'The Confucianization of Law and the Lenient Punishments in China', *International Journal of Criminal Justice Sciences* 10, no. 1 (2015): 32–47.

¹² Botsman, Dani, *Punishment and Power in the Making of Modern Japan* (Princeton University Press, 2005), 12. See also Ishii Ryōsuke 石井良助, *Edo no keibatsu* 江戸の刑罰 (Tōkyō: Chūō kōronsha, 1964).

¹³ Virtues in the classical Confucianism discourses specified as the three cardinal guides and the five constant virtues (三綱五常, Ch. Sangangwuchang Ko. Samgang'osang), while the core themes have changed gradually to suit the modern contexts. Chinese scholar observed the changes in the medical system of jails based on main codes appeared during a large time from Tang to Song dynasty. Du Wenyu 杜文玉, 'Tangsong jianyuzhongde yiliao xitong 唐宋监狱中的医疗系统', *Jiangnan luntan* 江汉论坛 5 (2007): 90–97. For more related Korean studies on the benevolence discourse of prisoner relief, Cho Yunseon 조윤선, 'Chosŏn sidae samyŏn, sogyŏl ūi unyŏng kwa pŏpchejŏk, chŏngch'ijŏk ūi ūi 조선시대 사면, 소결의 운영과 법제적, 정치적 의의', *조선시대사학보 Chosŏn sidaesa hakpo* (2006.9): 39–78; Park Jihoon 박진훈, 'Chosŏn Sejongdae kam'ok ūi kaesŏn kwa suyin ūi kuhyul 조선 세종대 감옥의 개선과 수인의 구휼', *Munmyŏng yŏnji* 문명연지 19 (2007.6): 43–68. Lee Jooho 이준호 and Lee Sangim, 이상임 'Chosŏn sidae kisang ibyŏn e ttarŭn chaehae palsaeng kwa kong'ok sasang ūl kyochŏngjŏk ūimi koch'al -Sobinggi 'Kyŏngsin taegigŭn ūl sarye ro 조선시대 기상이변에 따른 재해 발생과 공옥 사상의 교정적 의미 고찰-소빙기"경신대기근"을 사례로', *Kyujŏng tamnon* 교정담론 11, no. 3 (2017): 269–96; Kim, 'Epidemic Management in Chosŏn, 1608-1800', 2020.

¹⁴ For studies showing the problems exposed in the punishment system, with special attention paid to Chŏnju and

overview of Korean prison history, the discontinuity of the cases and periods that previous studies have covered, and the contradictions between the apparently benevolent aims of relief proclamations that we observe in the extant sources in contrast to the actual conditions in prisons confuse our current understanding of the history of Chosŏn prisons.

Therefore, this study explores the epidemics in prisons between the seventeenth and early eighteenth centuries in an attempt to overcome some of that confusion. Viewing pre-modern Korean history through the lens of outbreaks, this chapter also seeks to present depictions of how the Chosŏn government treated sick prisoners and legitimized temporary release. I will show how this mechanism of power operated and how it changed over the course of the seventeenth century. I will argue that it took over a century of experimentation before the legitimization of temporary release in the mid-eighteenth century, when the *Sok Taejŏn* 續大典 (Supplement to the State Code, 1746) came out.

Structure of central prisons

Throughout this chapter, the term ‘prison’ mainly refers to two central juridical institutes.¹⁵ One is the State Tribunal (Ŭigŭmbu 義禁府), an office charged with responsibilities to guard the kings’ authority and to correct violations of Confucian rituals.¹⁶ The Ŭigŭmbu was also used to prevent rebellions and to catch offenders by following the Chosŏn kings’ direct orders, in which case even aristocrats were sentenced and imprisoned by the Ŭigŭmbu.¹⁷ The other important institute was the

Inch’ŏn jails in the late 1890s, see Cho Yunseon 조윤선, ‘Chosŏn sidae samyŏn, sogyŏl ŭi unyŏng kwa pŏpchejŏk, chŏngchi’jŏk ŭiŭi 조선시대 사면, 소결의 운영과 법제적, 정치적 의의’, *Chosŏn sidae sahakpo* 조선시대사학보 38 (2006.9): 39–78. Wŏn Chaeyŏn 원재연, ‘1890 nyŏndae huban chibang kamok ŭi kwanni silt’ae: Chŏnju mit Inch’ŏn kamok ŭi Ch’eok kaesŏn sarye rŭl chungsim ŭro 1890 년대 후반 지방 감옥의 관리 실태: 전주 및 인천 감옥의 체옥개선 사례를 중심으로’, *Inmun sahoe 21* 인문사회 21 8, no. 2 (2017): 277–93.

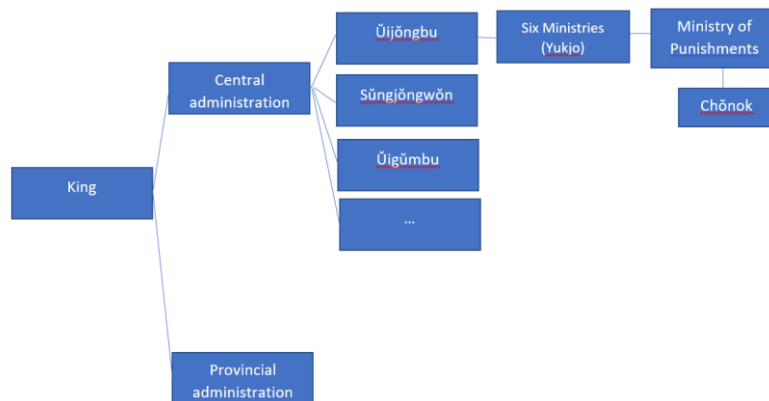
¹⁵ For more on the juridical system of the Chosŏn dynasty, see O Kapgyun 오갑균, *Chosŏn sidae sabŏp chedo yŏn’gu* 조선시대사법제도연구 (Seoul: Samyŏngsa 삼영사, 1995).

¹⁶ Ŭigŭmbu had other names such as Chook 조옥 詔獄, Kŭmbu 금부 禁府 Wangbu 왕부 王府, Kŭmo 금오 金吾.

¹⁷ *Newly Augmented Geographical Conspectus of the Eastern Kingdom* (Sinjŭng Tongguk yŏjŏngnam 新增東國輿地勝覽), vol. 2, capital (Kyŏngdu), State Tribunal (Ŭigŭmbu 義禁府), accessed September

Agency of Punishments (Chǒnok 典獄), an office that handled the custody of common prisoners under the guidance of the Ministry of Punishments (Hyǒngjo 刑曹).¹⁸ The Chǒnok was managed by the Ministry of Punishments but there was a certain physical distance between them, and during transfers, prisoners were likely to take flight. Thus, debates on its relocation lasted throughout the Chosŏn dynasty but never came to fruition.¹⁹ Because these two central prisons overlapped in their functions, prisoners in the Ŭigŭmbu could be moved to the Chǒnok if one jail was too crowded or if disease outbreaks occurred.²⁰ The interchange of prisoners also formed a possible transmission route for infection, so this study views infections in the two prisons simultaneously and the exact place is specified when relevant.²¹

Figure 18. Organisational chart illustrating the relative positions of between the Ŭigŭmbu and the Chǒnok at the central court



NB: The chart does not show the complete structure of the central government and is incomplete.

Chosŏn prisons located the administrative offices in the centre of their physical

11th 2020. See more research on Ŭigŭmbu. Kim Youngsuck 김영석, ‘Ŭigŭmbu ŭi chojikkwa ch’uguge kwanhan yǒn’gu 의금부의 조직과 추국에 관한 연구’, PhD dissertation, Seoul National University, 2013.

¹⁸ Cho Yunseon 조운선, ‘Chosŏn hugi Hyǒngjo wa Chǒnoksǒ ŭl kujo wa ōmmu 조선 후기 형조와 전옥서의 구조와 업무’, *Pǒpche yǒn’gu* 법제연구 (2003): 295–318.

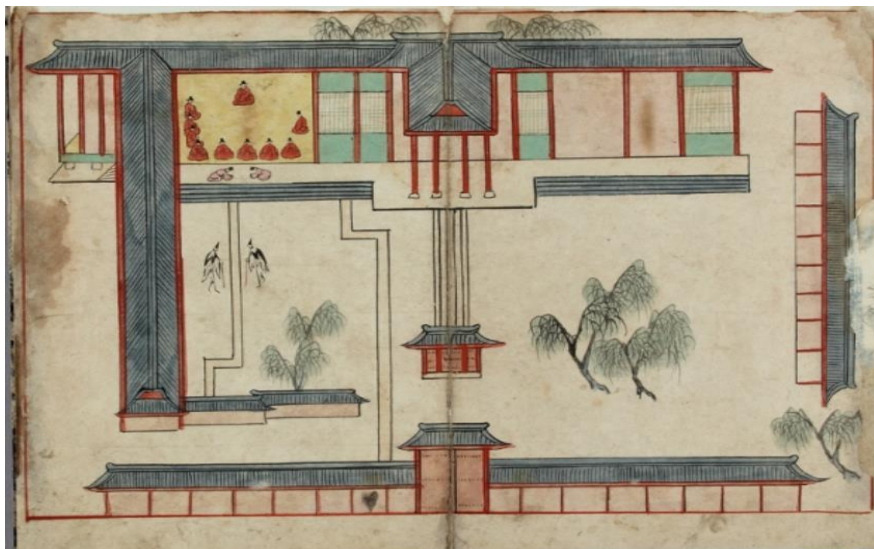
¹⁹ Cho Yunseon, ‘Chosŏn hugi Hyǒngjo wa Chǒnoksǒ ŭl kuchowa ōmmu’, 307.

²⁰ In the late Chosŏn dynasty, the Ŭigŭmbu became a more important ministry of justice compared to Hyǒngjo, so it appears more frequently in the main texts. Kim Youngsuck, ‘Ŭigŭmbuŭi chochikkwa ch’ukuge kwanhan yǒn’gu’, 3.

²¹ Besides, there were many other departments for containing prisoners according to the Chosŏn justice system such as Office of the Royal Genealogy (Chongch’inbu 宗親府), Military Affairs Commission (Chungch’ubu 中樞府), Office of the Princesses’ Consort (ibinbu 儀賓府) and so on. Cho Yunseon, ‘Chosŏnhugi Hyǒngjo wa Chǒnoksǒ ŭl kujowa ōmmu’, 307.

layout. There was a ceremony for the newly appointed assistant governor (*tosa* 都事), where he would distribute to each Ŭigŭmbu officer a booklet called *Kŭmogye ch'ŏp* (金吾契帖), which depicted the building of the Ŭigŭmbu and recorded the names of officers (Figure 19). Because of the frequent personnel changes in the late Chosŏn dynasty, a large number of booklets were produced and still exist, thereby providing material to examine the layout and architecture of the Ŭigŭmbu. As Figure 19 shows, the main official hall occupied the northern side of the structure and the western wing contained rooms where officers lived. A minor offender could also be imprisoned in the western rooms and two or three of them were put into one room. More serious criminals would be housed in the southern and eastern rooms. The central location of the administration displayed its authority and made it convenient for officers to gaze at convicts in all directions. Despite some slight differences in different periods, there were approximately sixteen rooms in the south and nine in the east.

Figure 19 Booklet of Ŭigŭmbu (*Kŭmogye* 金吾契), 1734²²



According to Pae Ch'anhyŏn, the layout of the Ŭigŭmbu did not witness many changes. Pae examined the architectural style and composition of the office building of

²² Booklet of Ŭigŭmbu (*Kŭmogye* 金吾契), 1734, exhibited at Daejeon Metropolitan City Museum, accessed 10 October 2021. Each booklet depicts a picture of the building of the Ŭigŭmbu and records the names of officers.

the Üigümbu, arguing that the Üigümbu remained almost unchanged from its establishment in the early fifteenth century to its annihilation in the late nineteenth century.²³ Throughout the centuries, the administration also remained in the centre so as to display the power relations between the officers and the prisoners.

Imitating the layout of central prisons, provincial prisons were constructed such that the official building was located in the centre and close to the provincial administration. For example, in the maps for Kobun county and Koryŏng county (Figure. 20), round shapes confined the activity space of prisoners.²⁴ The shape and function in gazing at prisoners from the centre call to mind Foucault's panopticon, although they appeared in different historical times.²⁵ Their similarities are undoubtedly a coincidence but corroborate Foucault's point that prisons served as a significant political space with an emphasis on authority and the sovereign in the physical centre watching those detained.

Figure 20. Images of round prisons in Chosŏn maps



Regarding the space for prisoners in the Chŏnok, despite a lack of extant images, written records provide clues that there were nine rooms in the Chŏnok and that the space for male convicts was divided from female convicts in 1518.²⁶ Each room was

²³ Pae Ch'ang-hyŏn 배창현, 'Chosŏn sidae Üigümbu ch'ŏngsaüi pyŏnhwa kwajŏng kwa kŏnch'uk konggan kusŏng 조선시대 의금부 청사의 변화 과정과 건축 공간 구성', *Kŏnch'uk yŏksa yŏn'gu* 건축역사연구 29, no. 5 (2020): 40.

²⁴ Map of Kobun county, Chŏlla province (Kobungun chido 古阜郡地圖), Kyu10496, 1872; Map of Koryŏng county (Koryŏng hyŏn chido 高靈縣地圖), in *Maps of Kyŏngsang province*, vol. 7, Kyu10512-v.1-9, 1872, both the Kyujanggak Institute of Korean Studies, accessed October 10, 2021.

²⁵ Foucault, *Discipline and Punish*, 195.

²⁶ *Chungjong silok* 31: 45A (1518.1.6). 丙午/御朝講。大司諫金楊震、掌令鄭士龍啓前事，皆不允。楊震曰：“臣

separated by beams and its floor was roughly laid out with wooden boards. Entrances were locked at the bottom of the wooden plank doors, while holes were cut in the middle of the planking through which water and food were delivered and air circulated.²⁷ Such tiny holes did not function well for ventilation, which became one direct reason for the epidemic transmission discussed in the following sections.

Epidemic outbreaks in prisons

The prisons of the Ŭigŭmbu and the Chŏnok were very narrow and crowded with numerous prisoners. [When] the weather was extremely hot the steam and smoke roiled up, leading to epidemic outbreaks. Recently, two prisoners in the Ŭigŭmbu died one after the other. If not treating them promptly, we [Royal Secretariat (Sŭngjŏngwŏn)] are afraid that a successive infection then will be hard to address.²⁸

Thus the Sŭngjŏngwŏn described an outbreak in prisons in the fifth month of 1614 during Kwanghae-gun's reign (1608-1623). There were only nine rooms in the Chŏnok but most of the time it had to contain 200 prisoners. In a report in 1613, right before the outbreak, there were over eighty prisoners but the other sixty were moved from the Ŭigŭmbu, completely filling all rooms. Prisoners had to live in a semi-exposed space where they were sunburnt sitting in the sun and wore straw rain capes in the rain, causing numerous people to fall sick.²⁹ Male and female rooms were separated, offering some relief for female convicts; however, most of the female prisoners assembled in one dilapidated room and since one room was very small, some were left exposed outside in the yard. Chŏng Yŏn (鄭沆 1654-1697), a fourth censor, witnessed their grief and sorrow in the extremely cold weather in the third month of 1629 and conveyed his concerns about their lives.³⁰ Incarceration was exacerbated by arbitrary imprisonment and cruel punishment as 'prisoners were bound up in overlapping fetters.' Living in

聞‘典獄署、義禁府，男女之獄，皆不區別，與之混處。’重囚之人，自知己罪之無如何，不無相私之弊，或有獄中產兒者。請築牆以別其處。”上曰：“可。”

²⁷ Cho Yunseon, ‘Chosŏn hugi Hyŏngjo wa Chŏnoksŏ ŭl kuchowa ōmmu’, 307.

²⁸ *Kwanghae-gun ilgi* 28: 64A (1614.5.19). 甲寅五月十九日庚午政院啓曰：“禁府、典獄，囚禁甚多，獄間窄迫，天氣極熱，熱氣薰蒸，轉成瘟疫。頃者禁府兩囚，相繼殞斃，若不及時治療，恐有漸染難救之患。

²⁹ *Kwanghae-gun ilgi* 24: 28A (1613.6.13).

³⁰ *Sŭngjŏngwŏn ilgi* 25. Injo7. 1629. 3.19. 女囚獄間，頽缺已盡，皆聚簷下一間，未能盡容，露處庭中，隆寒則痛苦之狀，慘不忍見。

such physical conditions, prisoners continued to die whenever the heat was intense and fevers were rampant, for example, in 1618 and 1620.³¹

Initially, the Border of Defence Council reported numerous cases of infection among soldiers at the northern border and requested urgent medical aid in the third month of 1620, when the epidemics ravaged several towns near the northern borderland, such as Manp'o 滿浦.³² Meanwhile, a great famine also struck Chosŏn Korea in 1620. The national crop storage reached a nadir and the Bureau of Relief (Chinjech'ing 賑濟廳) was unable to allot grains as relief. People begged on the streets dying of starvation with corpses piling up nearby.³³ The starving people were vulnerable to many kinds of disease, especially a powerful and lethal outbreak at that time.

Soon after the outbreak swept down from the north, it threatened the weak point of epidemic prevention -the criminal system both in the Chŏnok and the Ŭigŭmbu. The officer Cho Chanhan (趙纘韓 1572-1631) paid a visit to the Chŏnok in the fifth month of 1620 and witnessed that the entire prison was crowded by sick people. Seven to eight among ten prisoners died and their bodies lay on top of each other.³⁴ Likewise, the infection in the Ŭigŭmbu was also catastrophic: after two prisoners died of the infection, ten more lost consciousness, and the numbers of the infected increased every day. According to the Ŭigŭmbu, other prisoners had not been given food for a long time and were starving to death, miserably begging for food. Officers expressed their concerns that it would not be long before the infectious diseases spread to the Ŭigŭmbu officers.³⁵

To manage the outbreaks in 1614 and 1620, Kwanghae-gun strengthened edicts on the rescue and treatment of prisoners.³⁶ While officers and doctors serving the prisons were inexperienced and completely at a loss in front of the sudden outbreak in 1620, he

³¹ *Kwanghae-gun ilgi* 46:18A (1618.6.9).

³² *Kwanghae-gun ilgi* 52:85A (1620.3.19).

³³ *Kwanghae-gun ilgi* 53:50A (1620.6.11).

³⁴ *Kwanghae-gun ilgi* 53:18A (1620.5.16).

³⁵ *Kwanghae-gun ilgi* 53:40B (1620.6.5).

³⁶ *Kwanghae-gun ilgi* 28:64A (1614.5.19).

directly criticized the officials as follows.

Judging from the actions of the Ministry of Punishments, rescuing prisoners was vain. There is not a single monthly doctor (*wollyǒng ūl* 月令醫) or any medicine to save the sick and the situation is getting worse. How to cure the sick prisoners? According to the Ŭigǔmbu, in the previous days, the medical officers were strict in examinations and offering medicine following protocol, but recently they are unfamiliar with the rules and leave things aside, which is very disheartening.³⁷

Kwanghae-gun noticed the dereliction of his subordinates, so he ordered the selection of more competent officers to supervise the medical treatment. However, this edict was too late to take effect, because prisoners had been subclinical or unhealthy in the jails even before the outbreak and the outbreak was merely the last straw that overwhelmed them. Those who had been fragile, starving, and suffering from fever rarely had any chance to survive the deadly infection, because they had no access to medicine and doctors.³⁸

In addition, aware of the outbreaks in prisons that were worsened by the old buildings, Kwanghae-gun also requested a complete cleaning of the prisons and directed that the doors be opened at times to disperse the smoke and heat, although his edicts were never put into practice.³⁹ The existing records suggested one officer, Sǒ Pilhak 徐弼學, did endeavour to improve the jail environment. He spent his own money in painting and consolidating the Chǒnok walls and it was reported that not even a single spot of filth was visible after a cleaning in 1621.⁴⁰ Such an individual action, nonetheless, was just a one-off attempt to stem the advance of infection in 1620, and the chaotic filth in prisons remained problematic in subsequent decades.

The 1620 outbreak seems to have subsided naturally and the reconstructions of prisons were temporarily forgotten. Debates restarted when outbreaks repeated. In a 1629 report by a fourth level governor, Chǒng Yǒn (鄭沆 1654-1697), the prisons had

³⁷ *Kwanghae-gun ilgi* 53:40B (1620.6.5).

³⁸ *Kwanghae-gun ilgi* 53:43A (1620.6.7).

³⁹ *Kwanghae-gun ilgi* 28:64A (1614.5.19).

⁴⁰ *Kwanghae-gun ilgi* 58:99A (1621.11.5).

not been refurbished or cleaned for years and even the walls were damaged. Dilapidation of the building not only raised concerns that prisoners would flee, but also posed the threat of another outbreak, because of the polluted air within such an enclosed space, especially in warm seasons.⁴¹ King Injo (1623-1649) urged again every legislative department to repair their buildings and to optimize the environment, but after his directives were obeyed the layouts and structures did not alter for centuries.⁴²

Chosŏn kings were well informed of the poor living standard in prisons but they insisted on keeping the old buildings that had been constructed since the early Chosŏn dynasty. The main reason was due to the consideration of civil attitudes towards the expansion of prisons. Larger prisons meant more capacity for incarceration and more prisoners suggested an unstable society rather than a benevolent society. That point of view completely ignored the advantages of refurbishment for the existing incarcerated prisoners. For example, Yŏnsan-gun once asked, ‘although the revision of criminal law is inevitable, why would we enlarge prisons to punish and execute more people?’⁴³ Another concern was that, after a reconstruction, people would be reluctant to live near either the former site or the new site so more land would be deserted. As a result, such explanations were used as excuses by following kings to not improve the living environment of jails, while prisoners fled through broken walls and were successively exposed to epidemics.⁴⁴

A habitable jail, in particular for epidemic prevention, requires the attendance of physicians, the availability of effective medicine, and a clean and hygienic environment, which also formed the primary contents of the medical care of prisoners as stipulated in the *State Code* (*Kyŏngguk taejŏn* 經國大典). The implementation, nonetheless, did not follow these regulations and failed to block the outbreaks in prisons.

⁴¹ *Sŭngjŏngwŏn ilgi* 25. Injo7. 1629. 3.19. ○ 正言鄭沈...獄間糞穢之物,二十年來,一不修掃...至與墻齊,非但囚人越獄之可慮,日暖之...氣薰染,從前癘疫,因此熾發。

⁴² *Sŭngjŏngwŏn ilgi* 25. Injo7. 1629. 3.19.

⁴³ *Yŏnsan-gun ilgi* 45:3B (1502.7.13).

⁴⁴ *Kwanghae-gun ilgi* 58:99A (1621.11.5). 大概在前則獄墻頽落,極爲虛疎,故或有罪人逃躲之弊,且獄中積滯污穢之物故,熱病每患傳染。

A gap between prisoner relief and its practice

The *State Code* compiled and published in the late fifteenth century was the fundamental law of the Chosŏn dynasty. Although the laws confirmed the legitimacy of state control over condemned bodies, the health care of prisoners, together with the sick and poor, was also regulated in sections on criminal laws and rituals. Relief duties were divided between the capital that mainly depended on the Department of the Censorate (Sahŏnbu 司憲部) and local regions where civil governors (*kwanch'alsa* 觀察使) managed local prisons.⁴⁵ Focusing on the two main capital prisons, this chapter views three essential requirements for medical care of prisoners: doctor visits, the provision of medicine, and the living environment.

First, doctors from the Office of Benefiting the People (Hyeminsŏ 惠民署) were required to treat sick prisoners. According to the *State Code*, it was mandatory to dispatch doctors on a monthly basis to check the health of prisoners and treat the sick as their patients.⁴⁶ To prevent doctors from shirking this duty, the *State Code* established an evaluation system in which the Ministry of Punishments would examine doctors seasonally and record their performance of patient treatment. These records served as a reference for the civil examination of royal doctors and the promotion of provincial doctors, thereby providing some excellent provincial doctors higher positions at the Office of the Royal Physicians (Naeüiwŏn 內醫院) or chances to be magistrates.⁴⁷ The various ways of supervision of physicians imply that the Chosŏn government endeavoured to cultivate local medical talent to improve healthcare at the bottom of society, where we find the medical treatment of prisoners.

Medicine was the second essential element for the health of prisoners. At the time of outbreaks, some *materia medica* could help to reduce pain and symptoms, but most were luxurious and unaffordable for commoners, let alone prisoners. Therefore, the

⁴⁵ *Kyŏngguk taejŏn* 經國大典 Hyŏngjŏn 刑典 hyulgu 恤囚 (京司憲府...) 恤囚 京, 司憲府, 外, 觀察使, 檢察獄囚。

⁴⁶ *Kyŏngguk taejŏn* 經國大典 Yejŏn 禮典 Hychyul 惠恤 (義禁府成均館...) 義禁府·成均館·典獄署, 各定月令醫一員, 治療諸生及罪囚之有病者。"The Ŭigŭmbu, the Sŏnggyun'gwan, and the Chŏnoksŏ commanded one monthly doctor to treat all alive including sick prisoners."

⁴⁷ *Kyŏngguk taejŏn* 經國大典 Yejŏn 禮典 Hychyul 惠恤 〇 每月季, 本曹考諸醫員治療病人勤慢置簿, 憑考殿最。

State Code stipulated that doctors working for the central court should offer patients in need medicine first and be reimbursed later after reporting to the Ministry of Taxation (Hojo 戶曹). Provincial governments were required to dispatch doctors and distribute medicine in local regions.⁴⁸ In the waves of epidemics at Chŏnok in 1437, King Sejong also put the *State Code* into practice by ordering doctors to offer medicines and to treat the convicts rather than watch them die.⁴⁹

As noted earlier, a better living environment also directly affected the physical condition of prisoners. According to the *State Code*, if jails were not solid or repaired but fell into dilapidation, then magistrates in charge would be struck one hundred times with a wooden cane.⁵⁰ The consolidation and repair of leaky jails were not simply for preventing prisoners from escaping, but also because of the threat posed by outbreaks. Given that the enclosed space of prisons became extremely hot in summer, the *State Code* even considered ‘delivering iced water’ to prisoners to improve their treatment.⁵¹

These regulations emphasized one common theme – ‘relief’, requiring that the government should offer medical treatment and better living conditions, although the implementation did not strictly follow the rules. Different from what is seen in the *State Code*, such as dispatching doctors and offering medicine, questions remain about how the state actually acted. As the outbreak cases have shown, prisons were crowded and unsanitary, providing suitable seedbeds for viruses. In addition, kings usually dispatched monthly doctors and officers to manage food and medicine when confronted with epidemics; however, the amount of medicine could never meet the needs of the upper class and rarely reached the lower class during outbreaks. An example from an epidemic outbreak in 1627-1628 suggests that the scarcity of medicine for sick

⁴⁸ “If a (sick) patient is reported to the Five Ministries, Wŏllyŏng ūi (月令醫 monthly doctors) should be dispatched immediately to treat the patient; if the patient is indigent and cannot afford medicine, the official should offer medicine and then report to the Ministry of Taxation (Hojo 戶曹)... For those in the capital, then the Ministry of Taxation should register them and send them to Hwarinsŏ, while for those outside of the capital, local counties take responsibility to treat them.” *Kyŏngguk taejŏn* 經國大典 Yejŏn 禮典 hyegu 惠恤.

⁴⁹ Sejong sillok79:11B (1437.11.9). See more relief policy during Sejong reign. Park Jihoon, ‘Chosŏn Sejongdae kam’ok ūi kaesŏngwa suyin ūi kuhyul 조선 세종대 감옥의 개선과 수인의 구휼’, 57-8.

⁵⁰ *Kyŏngguk taejŏn* 經國大典 Hyŏngjŏn 刑典 hyulgu 恤囚. 如有不牢·不修·漏通·侵虐等事, 則杖一百。

⁵¹ *Kyŏngguk taejŏn* 經國大典 Yejŏn 禮典 hyegu 惠恤. 頒水 (每歲季夏頒水...)

prisoners was normal.⁵² The epidemic had been prevalent among armies since the third month after the first Manchu invasion of Chosŏn in 1627.⁵³ Towns like Anju were ravaged by infection, and local officials begged urgently for more medicine, so some 80 *kŭn* of ginseng was sent immediately.⁵⁴ The increased demand and lack of supply of *materia medica* directly led to a surge in price and added more difficulties to the purchase and allocation to prisons. A report written by Chŏng Kyŏngse (鄭經世 1563-1633), a Chejo (提調 Commissioner) at Chŏnŭigam (典醫監 Directorate of Physicians to the Heir Apparent), depicted the usage of imported medicine from China. There was no more than one hundred *kŭn* of medicine traded with the Chinese, whereas it had to be transported first and then distributed to the royal palaces for emergency use, to the central medical institutes tasked with caring for sick convicts and patients at the capital, to Chosŏn envoys going to Beijing, and to soldiers at borderland garrisons. In waves of epidemic outbreaks, the medical needs dramatically surged to multiples of ordinary times.⁵⁵ The plan for medicine distribution collapsed in 1628, because the ship stocked with Chinese herbs sank on its way back from the tribute embassy to Beijing. Alternatively, every Korean town had to collect domestic *materia medica* for royal tribute. On such occasions, when both domestic and foreign medicine became expensive and even inaccessible, prisoners, despite being included in the list of medicine allocation beneficiaries, were less likely to have access to sufficient medical treatment during the outbreaks.⁵⁶

⁵² *Injo sillok* 18:31B (1628.2.25).

⁵³ *Injo sillok* 15: 55A (1627.3.11).

⁵⁴ *Injo sillok* 16: 39A (1627.5.30). 成俊考所送銀三百兩、人蔘三十斤, 金起宗所送銀三百兩, 開城留守趙翼所送人蔘五十斤 *Injo sillok* 17:46B (1627.11.29).

⁵⁵ *Sŭngjŏngwŏn ilgi* 21. Injo6. (1628.5.28).

⁵⁶ *Sŭngjŏngwŏn ilgi* 21. Injo6. (1628.5.28). 而今年則冬至使行次貿易齋持價物, 漂沒於洋中, 前頭各處應用唐材, 辦出無路。限今年冬至使回還間, 一切勿令進排, 缺各司貢物, 餘皆可以作米貿用, 而藥材則不可作米, 蓋各邑各有所產, 非如缺通行貿販之物故也。咸鏡道藥材缺爲作米於己酉, 江原道藥材作米於缺亥, 自此以後, 鄉材之稀貴, 無異於唐材, 缺依惠民署納咸鏡道藥材之例, 缺本色上納事, 竝捧承傳施行。傳曰, 依啓。本色上納事, 令該曹酌處。

Trials of temporary release

Because infectious diseases had been one of the common afflictions of the prisoners without effective medical care, the Chosŏn government administratively sought to alleviate the epidemics in prisons by adopting a policy of temporary release of heavily infected or sick prisoners, that is, except for those guilty of the most serious offences, such as prisoners who were accused of rebellion, involvement in significant political issues 大獄, or violation of Confucian ethics (綱常罪). I argue in this section that the apparatus of power prompted most Chosŏn kings to keep the most grievous offenders trapped in the prisons to show the king's dominance of the prisoners' condemned bodies, and that authority and hierarchy were interwoven within the entire process of temporary release, starting from imprisonment, through debates on whether to offer release, the long wait for sentences, and finally to the granting of permission for temporary release.

In the first half of the seventeenth century, Korean prisons were filled to overcapacity, because of arbitrary imprisonments carried out during Kwanghae-gun's reign (光海君, 1608-1623). At the time, Chosŏn underwent several calamities, such as recovery in the aftermath of the Imjin War, frequent natural disasters, and severe epidemics discussed elsewhere in this dissertation. These factors induced social disorder and an increasing crime rate. The officers in the Chŏnok considered imprisonment as the primary mean of criminal punishment and attempted to maintain social order by handing down casual sentences without careful investigation, thus causing a sharp increase in the number of people detained for minor crimes. There were 248 people in the Chŏnok in the first month of 1620 and another 140 people were interned within three days in the second month, reaching over 300 prisoners at one time.⁵⁷ Thus overcapacity in prisons was commonly seen in the early seventeenth century.⁵⁸ Moreover, once people were jailed, prisoners had to wait for an indefinite time to be released or endure a lengthy procedure of the criminal punishment system due to the

⁵⁷ *Kwanghae-gun ilgi* 52:58A (1620.2.24).

⁵⁸ *Kwanghae-gun ilgi* 46:18A (1618.6.9). 都承旨韓纘男啓曰: "典獄, 非直囚衙門, 則不爲擅囚法也, 近來國綱解弛, 人不畏法, 或推奴婢, 或報私怨者, 陰嗾諸都監及上司, 任意囚禁, 重罪輕罪次知, 竝多至三百餘人

inefficiency in the hierarchical penal system.⁵⁹

To keep convicts incarcerated or to release them for easier epidemic management in prisons became a dilemma as outbreaks drove the government to choose. The occurrence of food scarcity in the crowded jails alerted the Chosŏn government to the possibility of epidemic transmission, which led to a discussion about the temporary release of prisoners in the first month of 1620. Kwanghae-gun agreed with this suggestion of temporary release. Regardless, the cumbersome bureaucracy ignored this early warning and did not hasten sentencing times. In addition, they threw over two hundred prisoners into jail.⁶⁰ All of sudden, an outbreak spread within the prisons in the second month of 1620 and dead bodies accumulated against the jailhouse walls as if piling up firewood.⁶¹ The unhandled corpses bred other pathogens, ensuring that the epidemic took hold. It was too late in the fifth month of 1620 when the associated officials realized they should have released prisoners earlier.⁶² Although it was by then too late, minister Cho Ch'anhan (1572-1631 趙纘韓) insisted on an immediate sentence and a temporary release after re-examining the severity of the crimes. Because he had witnessed the tough life of prisoners first hand, he persuaded the king that quick sentencing and temporary release served as a policy of benevolence which fit Confucian ideology.⁶³ In Chosŏn society where moral credentials were vital for kings and bureaucrats, any kind of relief aid provided a good opportunity to enhance status.⁶⁴

When faced with Cho Ch'anhan's recommendation that he offer temporary release, King Kwanghae-gun hesitated for several reasons. The king's main concern was that the practice of temporary release at the time of epidemics was rarely seen in the histories and was mainly considered a threat to royal hegemony. Its first implementation dated back to 1447 during King Sejong's reign. Although interim release was not included in the Chosŏn *State Code* at this time (following the laws of the Ming dynasty instead), Sejong permitted temporary release when epidemics struck the two central prisons, the

⁵⁹ *Kwanghae-gun ilgi* 57:37A (1621.8.5).

⁶⁰ *Kwanghae-gun ilgi* 52:19B (1620.1.19).

⁶¹ *Kwanghae-gun ilgi* 52:58A (1620.2.24).

⁶² *Kwanghae-gun ilgi* 53:18A (1620.5.16).

⁶³ *Kwanghae-gun ilgi* 53:18A (1620.5.16).

⁶⁴ Karlsson, 'Royal Compassion and Disaster Relief in Chosŏn Korea', 98.

Ŭigŭmbu and the Chŏnok.⁶⁵ Similar concepts of releasing heavily sick prisoners had been seen in East Asian cultures. In China, the relief of prisoners had been legitimized in the *Tang Code* since the Tang dynasty. The Northern Song dynasty (北宋 960-1127) witnessed a change in the law that heavily sick prisoners with slight crimes could be temporarily released to be treated at home, which policy was inherited by the Ming and Qing dynasties.⁶⁶ With the introduction of Chinese regulations in the Japanese Nara period (奈良時代, AD 710 to 794) and the Heian period (平安時代, 794-1185) that combined with Confucian and Buddhist philosophies, punishment in seventeenth-century Tokugawa Japan mirrored some of these policies. The routine health checks of sick prisoners or granting prisoners amnesty in times of natural disasters or epidemic outbreaks became common.⁶⁷ Temporary release practice in Chosŏn conformed to the policies applied in Ming-Qing China.

After the trial release by King Sejong, interim release did not appear again until the sixteenth century during the reigns of King Yŏnsan-gun (1490-1538) and King Chungjong (table 7). Although King Chungjong released prisoners during outbreaks, a heated discussion surrounded the potential threat to the application of punishment and a loss of sovereignty in case of the emancipation of prisoners.⁶⁸ Most ministers were opposed to release, because some prisoners with heavy crimes could be too easily released.⁶⁹ They also alleged that it was not worth freeing all the convicts simply because of a single provincial report of outbreaks at a jail, and that, rather than alleviating any civil burdens, such a release policy would bring good fortune to villains

⁶⁵ *Sejong sillok* 106: 14A (1447.5.10). Wŏn Chaeyŏn 원재연, ‘Chosŏn sidae pobang ŭl chŏn’gu wa kŭ silt’ae 조선시대 보방의 전구와 그 실태’, 12–136.

⁶⁶ Du 杜, ‘Tang Song jianyu zhongde yiliao xitong 唐宋监狱中的医疗系统’; Wang 王, ‘Cong Xingbu jianyu kan Qingdai xuqiu sixiang yu yuzhi shijian 从刑部监狱看清代恤囚思想与狱制实践’.

⁶⁷ Botsman, Dani, *Punishment and Power in the Making of Modern Japan* (Princeton University Press, 2005), 42, 66–67; 947. Tōkyō Daigaku shiryō Hensanjo 東京大學史料編纂所 ed. *Dai Nihon shiryō* 大日本史料 vol. 9, 107 (947.10.3); vol. 13, 319 (1018.6.4), Historiographical Institute, The University of Tokyo, accessed November 16th 2021, <http://www.hi.u-tokyo.ac.jp/index-j.html>. 天曆 1 年 1 0 月 3 日. 大神宮以下の十四社に奉幣して、御惱及び瘡癩、赤痢等を祈禳せしむ、是日、囚徒を免ず。寛仁 2 年 6 月 4 日炎旱に依りて、神泉苑に於て、阿闍梨仁海をして請雨經法を修せしめ、主計頭安倍吉平をして五龍祭を行はしむ、又、左右兩獄の輕囚を赦す

⁶⁸ *Chungjong sillok* 52: 50B (1525.1.9); *Chungjong sillok* 53:3A (1525.2.5); *Chungjong sillok* 53:10A (1525.2.15); *Chungjong sillok* 53:11A (1525.2.17); *Chungjong sillok* 53:23B (1525.3.2).

⁶⁹ *Chungjong sillok* 53:3A (1525.2.5). 不可以癘疫之故，輕釋重囚，只放徒杖以下之罪，則徒歸於惠小人而已，何足以弭災乎

and detract from the solemnity of laws. Considering all the debates, the final compromise was to temporarily release those with crimes ranked below crimes that required punishment by beating with wooden canes.⁷⁰ Such considerations on how to balance punishment and benevolence directly affected kings' decisions, and so only these three kings implemented temporary releases of infected prisoners throughout the early Chosŏn dynasty.

Table 7 Instances of interim release in the early Chosŏn Dynasty

Kings	Contents	Sources
Sejong 29	To release the arrested	<i>Sejong sillok</i> 106: 14A (1447.5.10)
Yŏnsan-gun 8	Immediate determination and an appropriate release	<i>Yŏnsan-gun ilgi</i> 45:3B (1502.7.13)
Chungjong	A heated discussion and the practice of release during the intervals of epidemics	<i>Chungjong sillok</i> 52:50B (1525.1.9) <i>Chungjong sillok</i> 53:3A (1525.2.5) <i>Chungjong sillok</i> 53:10A (1525.2.15) <i>Chungjong sillok</i> 53:11A (1525.2.17) <i>Chungjong sillok</i> 53:23B (1525.3.2)

Since interim release had not been covered in the early Chosŏn laws, arguments continued: 'releasing everyone is inappropriate for the criminal system while no release is not good either.'⁷¹ This issue was raised again in 1620 when the Ŭigŭmbu iterated concerns about the loose surveillance. Supporters, on the other hand, claimed that the implementation of release featured more in its symbolic meanings of virtuous politics in the same way as the annual routine of amnesty.⁷² In this way, temporary release in waves of outbreaks in prisons was framed in the discourse of governmental benevolence. In addition, when natural disasters occurred, politicians and the populace tended to criticize the kings' virtue, because disasters were perceived as a kind of

⁷⁰ *Chungjong sillok* 53:3A (1525.2.5). 然以一道之事, 疏放罪人, 只爲小人之幸也, 何補於弭災而致和乎?"

⁷¹ *Kwanghae-gun ilgi* 53:40B (1620.6.5). 〇義州禁府啓曰: "...大抵爲此染病, 一一保放, 則獄體未妥, 不爲保放, 則必亦無噍類。 (將何以得其善策乎?)

⁷² See more research on Cho Yunseon, *Chosŏn sidae samyŏn*, 65.

heavenly punishment for the immorality of the king. King Sŏnjo and King Injo, for example, used a Confucian framework to take responsibility for the occurrence of disasters such as droughts, floods, and famines.⁷³ The starving and sick expected official provisions, be it even a single bowl of porridge; otherwise, people would complain about the merciless king. A re-examination of juridical decisions and interim release also acted as a comfort to civil emotions, which would augment government legitimacy and enhance social stability during the outbreaks.⁷⁴

Thus, quick sentencing and temporary release were used to display clemency towards innocent prisoners. For example, in 1612, Yu Chin, the son of Yu Sŏngnyŏng (1542-1607), the Chief State Councillor during the Imjin war, contracted a severe pestilent epidemic before his arrest and his physical condition did not allow him to await a normal trial. Some ministers insisted on his innocence or argued that his crime not severe enough to deserve a death sentence.⁷⁵ Therefore, he was given an interim release and a juridical sentence after his treatment at the time of the 1612 outbreak.⁷⁶

Although Yu was a special case in 1612, records in 1620 display the attitude of officialdom towards temporary release and its practice. Chosŏn officers noticed that, when great famines and epidemics ravaged prisoners, even expert doctors and medicines could not save lives, so the prisoners could only sit in jail waiting for death or for the magistrates to decide on their innocence. In case prisoners died unjustly, a shorter sentence appeared to be precisely appropriate and those who were wrongly prosecuted could be freed soon, while the offenders could be punished promptly.⁷⁷ Taking these views, the Ŭigŭmbu confirmed that sick offenders be released on bail due to the epidemic gripping the prison in 1620.⁷⁸

⁷³ *Sŏnjo sillok* 72:11B (1596.2.19). *Injo Daewang haengjang* (Summary of King Injo's Reign).

⁷⁴ *Kwanghae-gun ilgi* 53:40B (1620.6.5). 救療之命, 供饋之教, 前後丁寧, (固非一再)。而飢火之極, 病熱交作, 雖有良醫善劑, 終難起死(而回生也。有罪、無罪, 未及分釋, 坐視其死, 淹延至此)。爲今之計, 莫如速決於諸囚未斃之前也。

⁷⁵ *Kwanghae-gun ilgi* 18:18A (1612.3.9). 柳軫乃柳成龍之子也, 渠亦嶺南有名字之士子。而拿來時已得癘疫, 而中路加病, 仍而拘囚, 証勢極重, 命在今明云。若罪不至死, 則早爲處置, 俾免冤死獄中, 似爲宜當。(下問故敢達矣。)" 上 王曰: "此則當議處。苟有所見, 勿爲未安, 畢陳無隱。"

⁷⁶ Yu Chin 柳軫. *Imja ilrok* 壬子日錄. Accessed July 15th 2021, <https://diary.ugyo.net/>. 1612. 3. 11.

⁷⁷ *Kwanghae-gun ilgi* 53:40B (1620.6.5).

⁷⁸ *Kwanghae-gun ilgi* 53:43A (1620.6.7). 庚申六月初七日癸丑義禁府啓曰: "本府癘疫, 雖曰大熾, 方痛者一一

However, temporary release was unavailable for major criminal offenders like insurrectionists. For example, there were four prisoners on the list of those who had access to medical treatment during the 1620 outbreak. Two were released; one was under treatment, and the fourth, who was guilty of conspiracy against the king, remained imprisoned. Another twelve sick inmates were added to this list and among them, nine convicts were processed for release and the remaining three stayed in jail, because they stood accused of rebellion.⁷⁹ This list accurately indicated the proportion of prisoners chosen to be temporarily released and the impossibility of conspirators against kings to be released.

Rebels and traitors were kept imprisoned, because the sovereignty of kings did not tolerate any offence or challenge. Kwanghae-gun questioned the ministers who insisted on temporary release, '(You) are only reckoning how to rescue these traitors, then what is the meaning of arresting them? For those people violating the virtues, the state laws will be too loose if we do not give them heavy surveillance or the death penalty.'⁸⁰

Evaluation of temporary release

The discourse of benevolent government and the political meanings embodied in temporary release obscure whether this practice was effective, so this section discusses the impact of release on epidemic prevention, on the operation of jail administration, and on the released convicts and their families.

Those who supported a policy of interim release expected that it would help to eliminate the pathogen and halt epidemic transmission in prisons; however, outbreaks were not stopped and instead spread continuously due to the selective and incomplete release of infected prisoners. For instance, when an outbreak occurred in the wintertime of 1621, only two infected prisoners in the Ŭigŭmbu were released but none from the Chŏnok were released in the first month of 1621. It was abnormal that just one or two were found sick when the epidemic was rampant in one prison.⁸¹ Since some of the

保放，則未痛之囚，可以往鞫，速爲處置宜當。

⁷⁹ *Kwanghae-gun ilgi* 53:43A (1620.6.7).

⁸⁰ *Kwanghae-gun ilgi* 53:40B (1620.6.5).

⁸¹ *Kwanghae-gun ilgi* 59:60A (1622.1.26).

infected prisoners were freed, the remaining inmates became symptomatic after a period of incubation, but they were reported only after further observation of the development of their illness.⁸² The infection spread much faster than the juridical procedure, because the Ŭigŭmbu had no authority to conduct a major interrogation and had to wait for orders from the kings, who normally were reluctant to release conspirators. As a result, ‘those offenders associated with any revolt could not be remanded on bail albeit the heavy sickness, so the epidemics in prisons remained the same as before,’ according to a report by the Ŭigŭmbu officers in 1620.⁸³ To avoid more infected cases at the jail, the Ŭigŭmbu officers prepared a space to quarantine the infected prisoners waiting for their judicial sentences in 1620. They were transported to a temple where monthly doctors were dispatched to treat them as a provisional measure to aid the prisoners.⁸⁴

Even worse, contradicting the purpose of release to manage epidemics, the infection kept spreading elsewhere in the subsequent year 1621 along with the mobility of the released infected prisoners. The Ministry of Punishments noticed this drawback of temporary release, ‘When an infected person is released, his entire family would suffer, transmitting (infection) to the whole town, and then there is no clean place in the city.’⁸⁵ As a result, wherever the infected prisoner went, there also formed a potential epidemic transmission route.

One benefit of releasing prisoners was the decrease in official running costs of jails, and the savings derived from temporary release were also a primary consideration

⁸² *Kwanghae-gun ilgi* 53:43A (1620.6.7). ○庚申六月初七日癸丑義禁府啓曰: "... (姑因傳教, 前日救療單子所付金義敏、文希賢, 則已爲保放, 希信則救療, 順男則罪干逆獄, 故不爲保放。 仍爲取稟矣。 此外近日所病姜光老等十二人內, 九人則以保放入啓, 三人則以逆囚, 不得保放之意, 名下懸錄以入。 其他始痛而證勢不重者甚多, 欲觀日後病勢書入矣。

⁸³ *Kwanghae-gun ilgi* 53:43A (1620.6.7). 但係干逆獄罪人, 雖病重, 不得保放, 則獄中癘氣之熾, 猶夫前日, 臣等亦未知善處之策也。 *Kwanghae-gun ilgi* 58:99A (1621.11.5) 今者又聞典獄罪人, 雖經大赦, 如次知當放之類, 尙未蒙霽恩, 當此冬月, 因病致死者, 亦多有之云。

⁸⁴ *Kwanghae-gun ilgi* 53:43A (1620.6.7). 推鞫事, 非本府所擅行(舉行), 必待色承旨敢稟及大臣分付, 然後方可爲之。 如希信、純仁等獄事, 自有三省更鞫處置, 本府豈敢徑先議處乎? 但本府罪人, 則雖不得已於本府推問, 若三省及推鞫, 則本府癘氣未息前, 當直或軍器寺爲之似當。 (敢啓。) "傳曰: "鞫廳三省罪人, 會鞫於軍器寺, 而極擇月令醫員, 十分着實救療。 (德福則似不可保放, 議處。) 如賊奴係干逆獄, 速爲鞫問之類, 急急訊鞫以處。"

⁸⁵ *Kwanghae-gun ilgi* 59:10A (1621.12.10). 刑曹啓曰: "近日來國綱解弛, 人不畏法, 典獄濫囚之弊, 罔有紀極。 諸上司及非直囚衙門及諸道都監等, 或囚因傳請, 或以己事, 逐日囚禁, 自曹不能禁斥。 纍纍滿獄, 薰蒸染痛, 死者甚多, 慘不忍言。 一人染出, 一家盡痛, 傳染閭里, 城內無一乾淨地。 言念至此, 救焚無策, 誠可寒心。 救之無他, 莫如省囚, 囚者空獄, 則病何由起乎?"

of the post-Imjin Chosŏn government. Budgets for the central prisons mainly came from the Office of Equal Service (Kyunyŏkch'ŏng 均役廳), which was a part of state revenues gained from rice, salt, and fishing.⁸⁶ The budgets were supplemented by funds obtained from the confiscated goods or money for release permission.⁸⁷ The post-Imjin financial pressures limited the jails' budgets and made it unfeasible to jail large numbers of people, let alone provide them with medicine and doctors during an outbreak of epidemic.

Thus, although the policy of temporary release was framed in terms of benevolent politics and relief policy, in reality, it gradually became an excuse for the government to save money and shirk its responsibilities for the health care of prisoners. According to the *State Code*, doctors should go to check the infected prisoners. However, one doctor with a surname of Kim, who served at the Bureau of Crime in 1631, recorded his visit to a prisoner with heavy smallpox and pockmarks growing all over his body. The doctor was willing to make efforts to treat the prisoner, but the upper officer in the Ŭigŭmbu rejected the proposal and approved a temporary release for the smallpox victim.⁸⁸ A similar story was repeated in 1636 when doctor Yun Sŏnggil 尹誠吉 recorded that a prisoner was infected by the epidemic, showing symptoms of fever and coldness in turns, and no appetite with a headache. The doctor used medicine to treat him, but soon the Ŭigŭmbu freed him, claiming that it would be a concern if the prisoner-patient spread the disease broadly among the other inmates.⁸⁹ Saving the lives of patients was one duty for doctors regardless of them being prisoners or commoners, while the administration gave priority to keeping the prison in order rather than treating infected bodies. Physicians had to face contradictory loyalties, split between the duty of

⁸⁶ *Yukchŏn chorye* 六典條例 Hyŏngjŏn 刑典 (Ŭigŭmbu 義禁府) 均役廳給代錢 二百八十兩. Kim Youngsuck, 김영석, 'Ŭigŭmbu ũi chochik kwa ch'uguk e kwanhan yŏn'gu' 의금부의 조직과 추국에 관한 연구, PhD dissertation, Seoul National University, 2013, 132-5.

⁸⁷ Cho Yunseon, 'Chosŏn sidae samyŏn', 57.

⁸⁸ *Sŭngjŏngwŏn ilgi* 34. Injo9. 1631.12.8. ○ 禁府啓曰, 本府入直救療醫員金德廣手本內, 囚人李漢, 疫疾大發, 病勢極重, 郎廳看審, 則痘癩滿身, 果爲病重, 多般用藥救療之意, 敢啓。答曰, 保放。禁府謄錄

⁸⁹ *Sŭngjŏngwŏn ilgi* 51. Injo14. 1636.2.19. ○ 義禁府啓曰, 吳俊獻刑推, 允下矣。俊獻曾因月令醫尹誠吉手本, 病勢看審, 則瘟病的實, 故因本府救療單子, 姑爲保放事, 命下矣。據尹誠吉手本, 則俊獻, 以瘟疫, 寒熱往來, 引飲頭痛, 時方藥物救療云。許多罪人囚禁之處, 傳染可慮, 待差復後, 還囚刑推之意, 敢啓。

humanistic care and allegiance to the government. Therefore, the whole procedure from the doctor visits to decisions on release contained an essential contradiction between the maintenance of prisoners' health and the operation of the penal system. In other words, the infected bodies were not to be treated but abandoned by the administration.

In contrast to the rhetoric of benevolence that clothed discussions about temporary release, release did not actually herald more benevolence towards prisoners and their families. The families of prisoners had to pay more taxes to support a relative's incarceration; however, they usually suffered from financial burdens after losing their main labourer, and situations were even worse for the old and for widows left at home.⁹⁰ Suffering a financial burden was particularly acute during famines and epidemics. During temporary release, the prisoner returning home also acted as a virus carrier, damaging an already fragile family.

The majority of the released prisoners had difficulties in restarting a new life and died soon after their release. Upon being freed, they were often unable to walk any distance, because they were weak and sick after their lengthy imprisonment. Many did not have relatives to depend on in their hometowns especially *nobi* who were often made scapegoats for the aristocrats and received punishment in lieu of their masters.⁹¹ Examples suggest that after the released *nobi* returned, owners would monitor them closely and not allow them to obtain food, so some of them died of starvation in the end.⁹²

In comparison with poor prisoners, aristocratic convicts had numerous privileges and better access to medical treatment at home after their release.⁹³ As mentioned earlier in the case of Yu Chi, a *yangban* from the aristocratic class, he was given a temporary release due to his infection. Soon after going back home, he recovered and kept normal contacts with friends. Regardless, temporary release was a conditional discharge.

⁹⁰ Park Jihoon, 'Chosŏn Sejongdae kam'ok ūi kaesŏn kwa suyin ūi kuhyul 조선 세종대 감옥의 개선과 수인의 구휼', 59.

⁹¹ *Kwanghae-gun ilgi* 57:42A (1621.8.10). 捉人推奴, 勒以爲罪者, 六十餘人。

⁹² *Kwanghae-gun ilgi* 28:64A (1614.5.19). 甲寅五月十九日庚午政院啓曰: ...月令醫員各別擇定, 直宿都事, 勿委生疎新進, 另差勤幹官員, 飲食藥物, 盡心看檢。且逆獄保放之人, 日月已久, 遠方無依着族屬者, 既失公饋, 而主家則恐其脫逃, 拘繫甚緊, 不許暫時行走, 丐食朝夕, 舉將飢斃云, 亦令禁府別樣區處。

⁹³ Yu Chin 柳珍. *Imja ilrok* 壬子日錄. Accessed July 15th 2021, <https://diary.ugyo.net/>. 1612. 3. 15.

‘Because the crimes still existed,’ he ‘could not live far away from the prison’ and ‘felt regretful for not going further to other places.’⁹⁴ in addition to the perquisites of high social status, some prisoners with wealthy and powerful backgrounds bribed the officers to buy a chance at temporary release in the name of an infection or annual remissions, so they were successfully freed.⁹⁵

Epidemics and legislative construction of temporary release

Although outbreaks were unpredictable and irregular, they continuously struck the Korean peninsula and were effectively a ‘normal’ condition of prisons throughout the seventeenth century. Given the various problems exposed in the implementation of temporary release in the first half of the seventeenth century, in the second half of the seventeenth century, the Chosŏn government made adaptations to the policy by adding some supplementary measures to manage the epidemics in prisons. Those useful solutions were collected and compiled in the eighteenth-century laws, which helped to supplement laws in the late Chosŏn dynasty.

‘The Supplement to the State Code of 1746’ (*Sok taejŏn* 續大典, simplified as *State Code of 1746* below), a fundamental and influential code in the late Chosŏn dynasty, repeated most regulations in the earlier *State Code* but supplemented some others based on experience. It iterated the functions of prisons as a place for criminal punishment, legitimizing the essential duties of officials.

The prison is for punishing the guilty, not for causing deaths. Sometimes there are occasional deaths in times of extreme heat and cold, frost, hunger, and sickness. Then the officials are ordered to clean the jails and treat the sick. Those prisoners without family support should be given food and clothes by the government. If there is any laxity or failure to do so, officials will be severely corrected.⁹⁶

⁹⁴ Yu Chin 柳軫. *Imja ilrok* 壬子日錄. 1612. 3. 11. 傳曰罪人柳某。姑爲保放。待其病差推問。旣出獄。仲氏泣而迎謂曰何以報聖恩乎。人或勸余往射廳伯姊家在射廳或他處。余以罪名猶在。不可遠離獄門。仲氏之意亦然。遂留環福家。至今每恨某不能遠去他處。使仲氏腐心腸之餘。又久留獄門外。死人日成積於前。每出入過之。必攀蹙掩面而行。後日病發之原。未必不始於此。追思痛裂。無一事不是吾罪。其忍言之哉。

⁹⁵ Wŏn Chaeyŏn 溫載演, ‘Chosŏn sidae pobang ūl chŏn’gu wa kŭ silt’ae 조선시대 보방의 전구와 그 실태’, 19.

⁹⁶ *Sok taejŏn* 續大典(The Supplement to the State Code of 1746). Hyŏngjŏn 刑典 Hyulgu 恤囚 (淨掃囹圄療治疾病)。...無家人護養者,官給衣糧。如有懈緩不奉行者,嚴加糾理 <英宗乙卯下教。> (英宗 refers to the Ming

The *State Code* first emphasized the apparatus of punishment; however, the *State Code of 1746* depicts the dangerous nature of punishment and then shifts to foreground Confucian thoughts of benevolence to prisoners. Thus, the framework of relief obscured the control and discipline of prisoners but covered various aspects of prisoner relief in their daily life including food, clothing, health, and special care for the homeless. Two new items that were included suggest the adaptations and efforts that the government had made to manage the epidemics in prisons.

One new item was the legalization of temporary release and simplification of its complex bureaucratic process in the *State Code of 1746*. The time-consuming juridical process used to delay the opportune time to rescue an infected prisoner and some prisoners even died with injustice before release or sentence. Although major criminal offenders were not included, and they still had to wait for the permission from the Ministry of Punishments, the new code allowed those who were less guilty but more seriously ill to be treated by monthly doctors first and ‘released on bail while being reported.’⁹⁷ A quick release of an infected prisoner could help to avoid a wide transmission of infection among inmates or the infected one could even be cured by prompt treatment.

Another new item was the management of dead bodies, which suggests that the late Chosŏn dynasty codes tried to encompass care for dead infected prisoners. The *State Code* had stipulated that officials should bury the dead bodies of convicts only after careful examination, which followed the normal juridical procedure but did not consider the epidemic occasions.⁹⁸ The experience of the 1620 outbreak taught the government that the poor management of dead bodies worsened outbreaks in prisons.⁹⁹

emperor Zhu Qizhen, reign, 1427-1464)

⁹⁷ *Sok taejŏn* 續大典(The Supplement to the State Code of 1746). Hyŏngjŏn 刑典 Hyulgu 恤囚. (罪名稍輕而身病極重者)續 重囚外, 罪名稍輕, 而身病極重者, 月令看審, 報典獄官, 典獄官報本曹, 保授姑放。①禁府罪囚, 則月令直報本府, 啓稟保放。補 病勢危重者, 一邊保放, 一邊啓稟。

⁹⁸ *Kyŏngguk taejŏn* 經國大典 Hyŏngjŏn 刑典 hyulgu 恤囚. (京司憲府...) 囚死, 則典獄署報本曹, 本曹移文漢城府。義禁府, 則直移文。外, 則守令移文隣官, 檢屍覈實, 方許埋葬。其致死根因·救療形狀, 漢城府·觀察使啓聞。凡檢屍, 依檢屍圖。○刑死人, 無人收葬者, 官爲埋瘞。

⁹⁹ *Kwanghae-gun ilgi* 52:58A (1620.2.24). 庚申二月二十四日壬申(左副承旨啓曰: "十九日典獄摘奸, 則時囚二百四十八名, 而其中物故者, 多至七名。疊委其屍於獄壁之外, 有若堆積材木者然, 肉餒狗鼠, 腐臭滿獄。餘存二

That experience was then written into the *State Code of 1746*, stating that, ‘at the time when epidemics strike the capital or provincial regions, if the whole family dies with no one to handle their dead bodies, the Ministry of Taxation, Bureau of Relief, and each province should hold a funeral ceremony as a relief.’¹⁰⁰ A funeral was the last instance of care for prisoners, even infected prisoners, and this practice was carried over in subsequent Chosŏn laws.¹⁰¹

The 1620 outbreak heralded an era of the introduction of relatively scientific measures into the management of epidemics in prisons, such as the quarantine of infected convicts and prison disinfection measures. To respond to the 1620 outbreak, some infected prisoners were sent to nearby temples, which functioned as ad hoc quarantine houses. For example, in 1631, one offender in the Ŭigŭmbu was diagnosed with smallpox six to seven days prior to the report, and his conditions worsened, while some inmates had never contracted smallpox and so were vulnerable. He was a major criminal offender who was sentenced by the king’s order, but in fear of the uncontrollable spread of smallpox, the Ŭigŭmbu moved him to the Chŏnok and brought him back to serve his sentence after his recovery.¹⁰² These two records suggest that the central government was aware of the threat of communicable epidemics but no specified quarantine space existed then. Therefore, the Saving the Destitute Agency (Hwarinsŏ 活人署), which used to treat sick prisoners since its establishment in the early Chosŏn dynasty, gradually came to play the role of ad hoc quarantine station for the infected convicts in the seventeenth century.¹⁰³ Such a quarantine place was also prepared inside

百餘名,皆有菜色。*Kwanghae-gun ilgi* 64:23A (1621.1.27). (刑房)承旨朴弘道啓曰: "臣以下教之意,問于典獄署,則本署開錄來呈,故別單書啓矣。大概今此五十六人之屍驅,非一時病斃者也,自上年秋冬,(至于今)相繼而斃。積屍成丘,不得轉出者,非但本署殘弊,不能曳出,上司所囚之人,終必有推覈之處,故不得任意曳出。死者交枕,熱氣相染,閭閻癘癘之熾,蓋未必不由於此。近日之曳出,皆是舊日之積屍也,五十六屍之轉出,令人慘不忍見,宜乎所聞徹於九重也。且考見本署之開錄,則各司之濫囚,一至於此,而其中捕盜廳尤甚(焉),死者最多。

¹⁰⁰ *Sok taejŏn* 續大典(The Supplement to the State Code of 1746). Yejŏn 禮典 Hyehyul 惠恤.(京·外癘疫)京·外癘疫時,全家合沒而未得收瘞者,令戶曹·賑廳及諸道,恤典舉行。

¹⁰¹ For example, *Taechŏn T'ongpyŏn* (大典通編 Grand Code), *Taechŏn Hoepyŏn* (大典匯編) and so forth.

¹⁰² *Sŭngjŏngwŏn ilgi* 32. 1631.3.5. Injo9.○義禁府啓曰,罪人沈箕發,得痘瘡,今已六七日,症勢極重云。他罪人中,亦有未經痘者,倘或傳染獄中,疫氣熾盛,則多有拘礙難便之事,似當移置典獄,經疫後還囚推鞫,而係于三省罪人,自下不敢擅便。何以爲之? 敢稟。答曰,依啓。以上,禁府謄錄

¹⁰³ Yi Kyŏngnok 이경록, ‘Chosŏn chŏn’gi ūiryo kigu kaep’yŏn ūi sŏnggyŏk kwa kŭ ūimi 조선전기 의료기구 개편의 성격과 그 의미’, *Ŭisahak* 의사학 29, no. 1 (2020): 22. *Sŭngjŏngwŏn ilgi* 81. Injo20. 1642.1.7.且採蓼得病

the prison in 1661, when infected prisoners were sequestered in different isolated blocks.¹⁰⁴

In addition, the Chosŏn Koreans discovered some useful and relatively scientific disinfection approaches for outbreak prevention at jails. When the infection was severe in 1661, King Hyŏnjong (顯宗 1659-1674) ordered the Bureau of Medicine (Ŭisa 醫司) to prepare drugs such as the ‘divine pestilence pills’ (*sinsŏn pi’on-tan* 神仙辟瘟丹). Boiling the pills could help to remove the interior polluted air.¹⁰⁵ The smell of the boiled herbs pervaded the prison, thereby purifying the contagious air and keeping the infectious disease away. It was a traditional disinfection method and some ingredients are still used nowadays.¹⁰⁶ As noted before, the prison officers learned to open jail doors frequently in the 1620s, but the practice of boiling herbs to purify indoor air appeared in the 1660s, which indicated the development of contagion prevention measures.

Relief targeted at prisoners contained various practical measures such as an assessment of the suitable capacity of prisons, a clean living environment, access to doctors and medicine, quarantine places, simplification of the judicial process for temporary release, and the management of dead bodies. Basically, accomplishing prisoner relief also relied on the officers at the two central prisons strictly following the laws and putting them into practice, such as granting prisoners access to medical treatment rather than continually abusing their authority. More significantly, the political discourse of benevolence towards prisoners indeed required the collaboration among different central and provincial departments: the Ministry of Taxation provided the

者，雖極救療，而拘留獄中，寢處罪囚之間，所患傳染之症，萬無差愈之勢，出置活人署 *Sŭngjŏngwŏn ilgi* 227. Hyŏnjong3. 1672.6.7.又以刑曹言啓曰，卽今獄中，癘疾漸熾，重罪人方染痛者，至於十六人，方令月令救療，而輕罪染痛之人，亦爲出給活人署矣。

¹⁰⁴ *Sŭngjŏngwŏn ilgi* 167. Hyŏnjong2. 1661.2.4.則典獄輕囚，不過數人，此類則保放，以崔有元等三人，移置於二字缺稍有間隔之別，似爲便當。

¹⁰⁵ *Sŭngjŏngwŏn ilgi* 167. Hyŏnjong2. 1661.2.4.且令醫司相當藥物，着實進排，如神仙(聖)辟瘟丹等藥，焚燒獄中，消散染氣之意，分付施行，何如? 傳曰，知道。

¹⁰⁶ Sinman 申曼. *Chuch'on sinbang* 舟村新方. Onyŏk 瘟疫, Sinsŏng piondan 神聖辟瘟丹, Han'guk kukhak chinhŭngwŏn (The Korean Studies Institute), accessed August 1st 2021, <https://diary.ugyo.net/>. 歌曰，神聖辟瘟丹，留傳在世間正元禁，一炷四季保平安，蒼朮二兩，姜活獨活白芷香附子大黃甘松三乃子赤箭雄黃，各一兩，右爲末，麪糊和丸彈子大，黃丹爲衣，曬乾，正朝早晨，焚一炷，神仙粥治時令，糯米半合，生薑五片，長流水一升一沸後，葱白七介，加入，又一沸後醋半盞，加入煎半，溫服。

budget for medicine and food; the Bureau of Medicine dispatched monthly doctors; the Ministry of Punishment set sentencing and temporary release procedures, and most importantly, the king issued ad hoc orders. Prisons were affiliated to the penal and judicial systems but were interwoven with many different departments in the operation. Therefore, the political blueprints of relief, benevolence, and care towards prisoners tended to undergo more challenges, especially in emergent occasions such as outbreaks. The management of chaotic outbreaks in prisons was a long-lasting issue in the late Chosŏn dynasty.¹⁰⁷

Conclusions

This case study notes that overcrowded and unsanitary pre-modern Korean prisons were perhaps the institution most vulnerable to epidemic outbreaks. Although the State Code established in the early Chosŏn dynasty regulated various ways to relieve prisoners, such as dispatching doctors, allocating medicine, and improving their living conditions, sick prisoners rarely experienced these measures in practice. To mitigate outbreaks in prisons, some Chosŏn ministers suggested temporary release of infected patients. This was the subject of heated debates, where opinions differed as to whether the king ought to leave prisoners in jail to show his authority or release some of the imprisoned in a show of benevolence. In the end, fear of further epidemics spreading inside prisons and even to other central institutes eventually prompted Kwanghae-gun to agree to the temporary release of infected prisoners in the name of relief, when outbreaks in prisons became rampant in the 1620s. Temporary releases of gravely ill prisoners was conducted in the decades that followed, before being codified in law in the mid-eighteenth century. Meanwhile, initial attempts at the isolation of the infected and the use of disinfectants also appeared to manage outbreaks in prisons. However, the living conditions at prisons were unhygienic and incomplete release, under which criminals accused of the most serious crimes remained in jail, kept the virus in prisons, leading to continual outbreaks.

¹⁰⁷ See also Karlsson, 'Royal Compassion and Disaster Relief in Chosŏn Korea'.

Prisons also offer a window to consider pairs of contradictions that appeared between the interests of government and individuals, between the authorities or power and the interned or condemned bodies, and between imprisonment and release. Release was interpreted as relief or benevolence by government in a Confucian sense but may also be understood as subjugation and objectification of people in a Foucauldian sense. In this pre-modern Korean case, criminals accused of crimes against the king were not released, even when they were ill, in order to preserve the authority of the king's power. Moreover, even for those prisoners who were released, the prolonged juridical procedure led to epidemic transmission anyway. Additionally, release was adopted as a measure, because it saved official expenses on medical care. Pressures on the post-Imjin state finances meant it could not offer all heavily sick prisoners medical treatment. Prison officers then used a lack of finances as an excuse to avoid the responsibility of caring for the health of prisoners, releasing them against the advice of doctors. Release resulted in individuals and their families bearing the costs of feeding, housing, and treating the released prisoners, although in practice most did not survive long after being released. Thus, release was not aimed at actually relieving the individual concerned. Rather, the 'condemned bodies,' whether imprisoned or freed, were always under direct state control for the purposes of the state. These practices summarize the state concepts of what constituted epidemic management in prisons and mirrors the body politic even beyond pre-modern prisons.

Chapter 5 Where to Quarantine? Korean responses to infectious diseases in the seventeenth century

In Europe, the concept of quarantine has a long history that dates back to the Second Pandemic in the fourteenth century when Venice required the crews coming from plague struck countries to wait on ships for forty days. In the waves of the Great Plague of London in the seventeenth century, the government implemented household quarantine and quarantine stations provided by parishes to isolate the infected and potentially infected people. In Korea, prior to the fifteenth century, people believed that they should not breathe in the air from infected families but it was not until the seventeenth century when Chosŏn Korea started to quarantine infected people and potentially infected displaced people. As this chapter shall demonstrate, a central medical institute called Hwarinsŏ (Saving the Destitute Agency) was one such place that received and isolated infected people, although the majority came from elite families. In the second half of the seventeenth century, due to the shortage of places for the increasing number of infected people, quarantine space was extended to the suburbs of the capital and some privately-owned tents for quarantine also appeared in suburbs and local areas during the first great famine of *kyŏngsin* (1670-1671). In addition, the fear of epidemic transmission via displaced people in the capital prompted the government to send them to Yuldo island for quarantine during the great famine of *ŭlbyŏng* 乙丙 (1695-1699). I argue that the spatial changes in quarantine locations from the capital to suburbs and islands suggest a corresponding shift in relief responsibilities from the central government to private and local forces throughout the course of the seventeenth century.

Furthermore, through a comparative study between seventeenth century practices of ‘quarantining’ in Confucian cultures – Chosŏn Korea and China, and the national quarantine proclamations of England – this study offers an overview of the pre-modern Korean quarantine situation, clarifies its characteristics, and argues that it should not be understood as a form of early public health. While many scholars of the history of public health and the history of quarantine tend to consider quarantine

practices as one achievement of public health in early modern Europe, Mary Lidemann doubts these claims when writing on medicine and society in early-modern European history. She states that public health only evolved in the mid-to-late eighteenth century and refers to the early efforts, like quarantine, as simply being ‘for the health of the people.’¹ Rather than understanding epidemics through the lens of the history of medicine or public health in Korean and English scholarship, I argue that the Chosŏn government conceived of epidemic outbreaks as a form of natural disaster and therefore the seventeenth-century quarantine worked akin to a relief policy, like similar measures against floods or droughts, where food provisions were sent but there was little in the way of medical care. In such cases, the purpose of the government countermeasures was based on Confucian statecraft devoted to the stabilization of society and to securing government rule as a priority.

Existing scholarship

By accepting the concept of a global crisis in the seventeenth century, current Korean scholarship also views seventeenth-century Korea as a period of multiple crises, among which two great famines are considered to be some of the most devastating events: the great famines of *kyŏngsin* (1670-1671) and *ŭlbyŏng* (1695-1699).² An increasing trend within Korean research attributes these famines to natural causes, while the ‘Little Ice Age’ in the seventeenth century is believed to be one possible natural cause of harvest failures and weakening human health.³ Confronted with great famines, the Chosŏn government experienced difficulties in crisis management, especially when

¹ Some examples of studies on public health, Carlo Cipolla and Professor Carlo M. Cipolla, *Public Health and the Medical Profession in the Renaissance* (CUP Archive, 1976); Jane L. Stevens Crawshaw, *Plague Hospitals: Public Health for the City in Early Modern Venice* (Burlington, VT: Ashgate Publishing, 2012); George Rosen, *A History of Public Health* (Johns Hopkins University Press, 2015[1958]), 28–30; Kristy Wilson Bowers, ‘Balancing Individual and Communal Needs: Plague and Public Health in Early Modern Seville’, *Bulletin of the History of Medicine* 81, no. 2 (2007): 335–58; Frank M Snowden, *Epidemics and Society from the Black Death to the Present* (Yale University Press, 2020), 69–82. See also Mary Lindemann, ‘Disease and Medicine’, in *The Oxford Handbook of Early Modern European History, 1350-1750* (Oxford University Press, 2015), 112-3. Mary Lindemann, *Medicine and Society in Early Modern Europe* (Cambridge University Press, 2010).

² Geoffrey Parker, *Global Crisis - War, Climate Change and Catastrophe in the Seventeenth Century* (Yale University Press, 2013); Kim, Kyeongsook 김경숙, ‘Ŭlbyŏng taegigŭn’gi hyangch’ŏn sahoe ŭi kyŏnghŏmjŏk silsang kwa taegŭng 을병대기근기 향촌사회의 경험적 실상과 대응’, *Yŏksa wa silhak 역사와 실학* 61 (2016): 5–39.

³ Kim Miseong 김미성, ‘Chosŏn Hyŏnjong~Sukchong yŏn’gan kihu chaenan ŭi yŏp’a wa yumin taech’aek ŭi pyŏnhwa 조선 현종~숙종 연간 기후 재난의 여파와 유민(流民) 대책의 변화’, *Yŏksa wa hyŏnsil 역사와 현실* 118 (2020): 99–135.

the great famines struck the entire peninsula and went in tandem with epidemic outbreaks. People died from various reasons, such as malnutrition and bacteria caused by unhandled corpses. In the early studies on these great famines, scholarship discusses many of the social impacts and government responses by combining the famines with the relief policies of the Chosŏn dynasty.⁴ However, it should be noted that naming these two calamities as the ‘great famines of *kyŏngsin* and *ŭlbyŏng*’, throws into shadow the infectious diseases happening at the same time, and so epidemics have been relatively less discussed by scholars.

Korean scholarship often subsumes epidemics under the history of medicine and focuses more on the compilation of medical prescriptions and the development of private pharmacies from the seventeenth to the eighteenth centuries.⁵ By contrast, this chapter examines the history of quarantine measures for the epidemics that occurred during the two great famines of *kyŏngsin* (1670-1671) and *ŭlbyŏng* (1695-1699).

International scholarship on the history of quarantine has focused on early modern Europe. During the period of the Black Death, around 1348, quarantine appeared in Venice to separate crew coming from the plague-struck regions, and in 1377, the municipal council of Ragusa ordered a thirty-day period of isolation, which was extended to forty days later.⁶ Around a similar time to the *kyŏngsin* and *ŭlbyŏng* Korean epidemics, European countries were also frequently afflicted by the plague in the seventeenth century. For example, an outbreak of bubonic plague struck London in 1636, while quarantine functioned as a response: household quarantine and publicly run pesthouses.⁷ The implementation of quarantine gradually became a primary part of pre-

⁴ Kim Sŏng-u 김성우, ‘17 segi ūi wigi wa Sukjongdae sahoesang 17 세기의 위기와 숙종대 사회상’, *Yŏksawa hyŏnsil* 역사와 현실, no. 25 (1997): 12–47; Kim 김, ‘Ŭlbyŏng taegigŭn’gi hyangch’ŏn sahoe ūi kyŏnghŏmjŏk silsang kwa taewŏng 을병대기근기 향촌사회의 경험적 실상과 대응’ 2016.

⁵ Kim Ho 김호, ‘16 segi mal 17 segi ch’o yŏkpyŏng palsaeng ūi ch’ui wa taech’aeck 16 세기 말 17 세기 초 역병 발생의 추이와 대책’, *Han’guk hakpo* 한국학보 71 (1993): 120–46; Cho Wonjoon 조원준, ‘16-17 segi Chosŏn ūi pyŏgyŏk ūisŏ rŭl t’onghae salp’yŏbon onyŏkhak ūi t’ŭkching 16-17 세기 조선의 벽역의서를 통해 살펴본 온역학의 특징’, *Han’guk ūisahak hoeji* 19, no. 2 (2006): 29–47; Kim Dongjin 김동진, ‘Pyŏngja horan chŏnhu uyŏk palsaeng kwa nong’u chaebunbae chŏngch’aeck 병자호란 전후 우역 발생과 농우 재분배 정책’, *Yŏksawa tamnon* 역사와 담론 65 (2013): 263–309; Kim Ho 김호, ‘1612 nyŏn onyŏk palsaeng kwa Hŏ Chun ūi Sinch’an pyŏgonbang 1612 년 온역(溫疫) 발생과 허준(許浚)의 『신찬벽온방(新纂僻溫方)』’, *Chosŏn sidaesa hakpo* 조선시대사학보 75 (2015.9): 307–33.

⁶ George Rosen, *A History of Public Health* (Johns Hopkins University Press, 1958), 81; Zlata Blažina Tomić and Vesna Blažina, *Expelling the Plague: The Health Office and the Implementation of Quarantine in Dubrovnik, 1377-1533* (McGill-Queen’s University Press, 2015), 105.

⁷ John Booker, *Maritime Quarantine: The British Experience, c.1650-1900* (Routledge, 2016). Newman, ‘Shutt Up.’

modern medical care and was widely applied at European borders.⁸ Although England may not be the most appropriate comparative example, the problem is that scholarship on quarantining people in East Asia is still very limited. The history of quarantine in early modern Europe helps to better grasp the situations in Chosŏn at a similar time.

In comparison, quarantine policy in the late Chosŏn dynasty has been seldom discussed. This study aims to answer how quarantine was applied, how quarantine was perceived, and what were its functions. I start with a brief overview of the climate crisis in the seventeenth century and introduce the Chosŏn medical system in the early decades and its challenges in the latter part of the century, especially when confronted with severe infectious diseases during the two great famines. To show the change from a centralized approach to medical treatment towards a localized relief policy against epidemic outbreaks, this study concentrates on the expulsion of infected people to tents and the isolation of displaced people on islands. Such practices of quarantine further expose the issue of social inequality in the distribution of medical resources.

Epidemics during famine years

Many records suggest that extraordinary climate conditions occurred repeatedly throughout the seventeenth century. During the years around the two great famines, snow, frost, and hailstones appeared frequently even in the mid-summer of 1670 and the 1690s.⁹ For example, in the seventh month of 1697, the depth of snow reached almost three *ch'i* (six centimetres) and other regions in the peninsula suffered from locusts and famines.¹⁰ The Korean peninsula is for the most part located within a temperate zone, and so the effects of extreme climate on crop harvests were much severer than in China with its multiple climate zones. The Qing empire also experienced the effects of the

⁸ See more on premodern and modern quarantine policies, Richard S. III Ross, *Contagion in Prussia, 1831: The Cholera Epidemic and the Threat of the Polish Uprising*, 1 edition (McFarland, 2015); Sevasti Trubeta, Christian Promitzer, and Paul Weindling, eds., *Medicalising Borders: Selection, Containment and Quarantine since 1800* (Manchester: Manchester University Press, 2021).

⁹ *Sŭngjŏngwŏn ilgi* 231. Hyŏnjong13 (1672.11.20). Kim Moonkee 김문기, '17seki Chungguk kwa Chosŏn ūi kigŭn kwa kukche chŏk kukmul yut'ong 17 세기 중국과 조선의 기근과 국제적 국물유통', *Yŏksawa Kŏngge* 85 (2012.12): 348, 353.

¹⁰ *Sukjong sillok* 29: 2A (1695.7.7). One *ch'i* 寸 is 1/10 of a *chŏk* 尺. If the *chŏk* is a *chuch'ŏk* 周尺, then one *ch'i* is two centimetres.

‘Little Ice Age’ and famines struck the northern regions; however, it could still manage famines by the allocation of grain from subtropical areas and sometimes its vassal state Chosŏn.¹¹

The extraordinary climate caused famines, which further led to a mortality crisis. According to the historical records and current scholarship, over 1.4 million people died during the *kyŏngsin* famine in 1670, 11-14% of the population of Korea at the time.¹² Even worse, the great famine of *ŭlbyŏng* from 1696 was such that people reportedly resorted to cannibalism in order to survive.¹³ It was estimated that over 4 million people died, up to 25-33% of the Korean population.¹⁴ Because these statistics are originally based on data contained in the household registers, the missing population might also include displaced people who left their hometowns and went to other places to seek food, although many of them might also have died on the way.¹⁵ Overall, the mortality and displacement due to the great famine and epidemics probably explain the sharp population decrease in the late 1690s.¹⁶

The Chosŏn government opened its warehouses to rescue the famine victims; however, continuous harvest failures soon caused the government crop storage facilities to be exhausted. Thus, the central court launched a heated discussion as to whether they should ask for help from the Qing dynasty. Bound by the political philosophy of serving the great Ming, the Chosŏn government cared more about its reputation as a civilized outpost, a ‘little China’, and was reluctant to request help from the new Qing ‘barbarians’ in 1671. The Chosŏn government even rejected an offer of help when the Qing emperor Kangxi (1662-1722) expressed concern about the food security of

¹¹ See also Liu Wenhua 刘文华, “‘Lunmu’, ‘Zhaoliang’ haishi ‘Zhaoyin’ - Mingmo Qingchu zhongyang cengmian guanyu Liaoxiang lianxiang jiapai fangshi de zhengyi “论亩”、“照粮”还是“照银”——明末清初中央层面关于辽饷练饷加派方式的争议’, *Gujin nongye* 古今农业, no. 3 (2017): 56–65; Liu Xiao 刘晓, ‘Mingmo Qingchu Chaoxian de maoliang 明末清初朝鲜的毛粮’ (MA thesis, Dongbei Normal University, 2020).

¹² Kim Moonkee 김문기, ‘17seki Chungguk kwa Chosŏn ŭi kigŭn kwa kukche chŏk kukmul yut’ong 17 세기 중국과 조선의 기근과 국제적 곡물유통’, 2012, 347.

¹³ *Sukjong sillok* 31: 23A (1697.4.22).

¹⁴ Kim Moonkee, 2012, 354.

¹⁵ Kim 김, ‘Chosŏn Hyŏnjong~Sukjong yŏn’gan kihu chaenan ŭi yŏp’a wa yumin taech’aek ŭi pyŏnhwa 조선 현종~숙종 연간 기후 재난의 여파와 유민(流民) 대책의 변화’, 2020, 107.

¹⁶ Jun Seong Ho, James B. Lewis, and Kang Han-Rog, ‘Korean Expansion and Decline from the Seventeenth to the Nineteenth Century: A View Suggested by Adam Smith’, *The Journal of Economic History* 68, no. 1 (March 2008): 262.

Korea.¹⁷ Confronted with the great famine in 1695, however, King Sukjong decided to accept aid from the Qing dynasty, and provisions were transported to the peninsula in 1698 both by land and sea.¹⁸

However, these relief provisions had limited effect on epidemics. Epidemic outbreaks continued to spread, including smallpox and unknown infectious diseases, as well as rinderpest among cattle. People continued to die and the dead bodies piled up. As there was no time and no labour to deal with the corpses, the unsanitary environment caused secondary infections.¹⁹ Birds flocked to peck at the bodies, while starving people took clothes from the dead.²⁰ They did not know that the dead bodies and even their clothes could spread infectious diseases, because they did not have other accessible food or clothing to survive another winter.²¹

Medical administration

In tandem with the relief measure of crop distribution, medical administration had already been established in the early decades of the seventeenth century, when famine and epidemics afflicted the entire peninsula. For example, to address the 1612 outbreak, the monarch Kwanghae-gun (1575-1641) ordered Hō Chun (1539-1615) to compile medical prescriptions, distribute medicines, and care for infected patients at the medical institute called Hwarinsō (Saving the Destitute Agency 活人署), which consisted of two sites separately located in the eastern and western suburbs of the capital.²² These measures were mainly guided and supervised by the Naeüiwŏn (Office of Royal Physicians) at the court. Such a relatively systematic mechanism has been described as a form of medical administration by current Korean scholarship.²³

¹⁷ Kim Moonkee, 2012. 352.

¹⁸ Kim Moonkee, 2012, 360-1.

¹⁹ *Hyŏnjong kaejong sillok* 24:10A (1671.5.11).

²⁰ *Sukjong sillok*35:30A (1698.12.10).

²¹ During the great famines, there were more records on the appearance of tigers in villages so the government also called for strongmen to capture tigers. There are two reasons for the more records on tiger appearances. First, the great famines also caused the difficulties among animals. Tigers could not find their food because the starving people hunted more animals for food. Second, tigers were also treated as a kind of food resource at famine years.

²² *Kwanghae-gun ilgi* 21: 112A(1612.12.19).

²³ Lee Kyukeun 이규근, 'Chosŏn hugi Naeüiwŏn ūlgwan yŏn'gu -<Naeül sŏnsaeng an> ūl punsŏk ūl chungsim ūro 조선 후기 내의원 의관 연구 -<내의원생안>의 분석을 중심으로', *Chosŏn sidaesa hakpo* 조선시대사학보 3

However, such medical administration was not effective against epidemics during the great famines in the late seventeenth century. Three main factors explain this.

First, officers in charge of medical institutes like Hwarinsŏ did not take their responsibilities seriously, and corruption was a frequent problem. According to a report in 1645 in the *sillok*, these officers did not report the exact death toll of the epidemics, instead reporting fewer deaths than the reality in order to receive rewards. Despite the awareness of this issue by the central court, no further action was taken to punish the officers or to cure the sick.²⁴ The correlation between dereliction of duty and numerous deaths did not draw central court attention until 1698 when the *ŭlbyŏng* famine struck the Korean peninsula.²⁵ At that time, Minister Kim Uhang (1649-1723) suggested that King Sukjong (1674-1720) should fire and punish irresponsible officers at Hwarinsŏ.²⁶

Second, the number of people treated at Hwarinsŏ was limited and most of them were *nobi* from elite families. Elites themselves, when sick, would have invited physicians to come to their homes directly, and they also had sufficient and even nutritious food that helped them to survive an illness.²⁷ Their *nobi* were sent to Hwarinsŏ and occupied the medical resources there. Even at the relief spots for food distribution in 1666, it was also these *nobi* who comprised the majority of those waiting in the queue. While most of the cured patients at Hwarinsŏ were also *nobi* from elite families, few poor people were seen to be treated there.²⁸ This problem drew the attention of one officer from the Ever Normal Warehouse (常平倉 Sangp'ŏyngch'ang), used for crop storage, and he expressed his sorrow for the poor and asked for a check of the rice beneficiaries since the implementation of the rice allocation did not truly relieve

(1997.11): 5–50.

²⁴ *Injo sillok* 46: 3A (1645.2.10).活人署官員, 有希賞之計, 物故之數, 不以實聞, 政院不能察, 上亦視之尋常, 別無申明救活之舉。

²⁵ *Sukjong sillok* 32: 20A (1698.12.10).

²⁶ Kim Uhang. *Kimch'ung chŏnggong kapbong yugo* 金忠靖公甲峰遺稿, 1904, collected in *Han'guk munjip ch'onggan*, vol. 158. Report on the request of dismissing officers at eastern and western Hwarinsŏ. 金宇杭 1649-1723.

²⁷ See Kim Yŏng. *Kyaeam ilgi*. 1607.2.4, The Korean Studies Institute, accessed November 1 2021.

²⁸ *Injo sillok* 46: 3A (1645.2.10).下教于政院曰: "東西活人署染病人出幕者幾人乎?" 政院啓曰: "兩署出幕病人, 六百九十六人, 死者八人, 永差者二百七十一人, 時留病幕者四百十三人云。" 時, 京師癘疫連歲大熾, 閭巷間無乾淨之家, 死亡者亦不知其數, 而東、西活人署出幕救活者, 皆士大夫家僕隸也。

the populace.²⁹ It turned out that the elite families with familial support and *nobi* care still enjoyed relief supplies and medical care, while poor commoners without any social status gained no help.

Thirdly, other medical institutes were also busy serving the royal family and paid little attention to civil health. Almost at the same time as the great famines were occurring, smallpox broke out in the royal palace as kings, concubines, and princesses all reported suspicious symptoms, and so the royal pharmacy was busy with their demands rather than the populace's needs.³⁰ Since the central medical institutes were not effective in the treatment of local epidemics, the responsibilities for providing relief to the common people partially shifted to private forces. The following examines this shift to private forces in relation to the case of quarantine practices.

Expulsion to tents: quarantine in suburbs

Since at least the fifteenth century, Korean medicine has understood that epidemics were infectious and that distance should be kept between healthy and infected people. The early records of the reign of King Sejong (1418-1450) suggest that people at that time thought infectious diseases were caused by a kind of bad air that was breathed out by the infected families and that people would die if they breathed it in.³¹ Medical texts also mentioned that causes of infectious diseases could be a kind of atmospheric *qi* or weather akin to Lingnan local *qi* in the far south of China that associated with malaria outbreaks.³² These records indicate that by the seventeenth century, Koreans had been aware of the possible transmission route of infectious

²⁹ *Hyōnjong kaesu sillok* 15: 48B (1666.3.7). 常平廳啓曰: "設粥賑救, 專爲飢民糊口, 而卽今食粥者, 三四百名, 舉皆士夫家奴婢, 無告窮民, 不過若干名, 誠可寒心。 貧寒士人, 不能食其奴婢, 致有飢餓之患, 則以飢民置簿, 容或可也, 至於有職士夫家奴婢, 亦錄以飢民, 一體賑粥, 此豈朝家設賑本意哉? 請令各部, 查出無依飢民, 依例賑粥, 士夫饑寡孤獨絕火之家, 則題給乾糧, 俾無餓死之患。 且城中癘疫方熾, 請令兩活人署, 出置病幕之類, 亦量給乾糧、鹽醬。" 上可之。

³⁰ *Hyōnjong sillok* 21:27A (1673.7.23). *Hyōnjong sillok* 21:27A (1673.7.29).

³¹ *Sejong sillok* 4:1A (1419.5.1). 上曰: "今聞, 各道疾疫盛行。 教諭守令, 不盡力救療, 致令夭扎, 予甚憫焉。 其賜香蘇散、十神湯、升麻葛根湯、小柴胡湯等藥于諸道監司, 依方救療。"

³² Marta E. Hanson, *Speaking of Epidemics in Chinese Medicine: Disease and the Geographic Imagination in Late Imperial China* (London and New York: Routledge, 2011), 69–73. *Kunjung üiyak* 軍中醫藥. 古者行軍, 必急醫藥, 蓋結營必依山川, 每犯山嵐海氣, 兼之霜雪風雨, 奔走罷勞, 沍寒酷暑, 野屯露宿, 衆人氣穢交蒸, 疫病易起, 不服水土, 霍亂瘧痢, 槍悴有病, 不暇安臥調理。 東醫寶鑑。 大頭病者, 頭痛腫大如斗, 是也。 大率多是天行時疫病也。 《綱目》

diseases such as contact and air transmission for some time.

The awareness of transmission features of infectious diseases also enforced the early practice of isolation and quarantine, which became more common after 1600. For example, on one occasion at the central court, when one minister suddenly coughed heavily, he was immediately dragged out to be placed in a relatively isolated space blocked by curtains.³³ The practice of using a curtain to circle an area for the sick to be treated was not exclusively used for infectious diseases.³⁴ Prior to the seventeenth century, curtains were most commonly used for separating women from male doctors, but they started to function as a form of quarantine from the seventeenth century onwards.³⁵

Tents and curtains used in army encampments were soon applied to epidemic quarantine for commoners. General Chōng Ch'ungshin (鄭忠信, 1576-1636) set up a quarantine area to treat his infected soldiers in 1621 when the capital was afflicted with epidemics.³⁶ Later, quarantine tents were used at the central medical institute Hwarinsō, where infected people were separated from the healthy by curtains.³⁷ As the limited beds at Hwarinsō failed to hold all the patients during severe epidemic seasons, some private quarantine facilities appeared from the mid-seventeenth century in the suburbs of the capital as an extension of Hwarinsō to quarantine infected patients. Hence, sending someone out to these suburban tents gradually gave rise to a special term 'expel someone to the tents (出幕 *ch'ulmak* or 病幕 *pyōngmak*)' to treat people of infectious diseases, and the tent also took the form of a curtain for blocking diseases.³⁸

Patient capacity within private quarantine establishments was far larger than

³³ *Sōnjo sillok* 33: 19B (1600.3.29).

³⁴ *Sejo sillok* 20: 10A (1460.4.18).

³⁵ Guo Yue 顾玥, 'Ming Qing shiqi nanxing guanxi wangluo zhudaoxia de nüxing zeyi 明清时期男性关系网络主导下的女性择医', *Funü yanjiu luncong* 妇女研究论丛 159, no. 3 (2020): 122.

³⁶ Chōng Ch'ungsin 鄭忠信. *Man'unjip* 晚雲集, vol. 2, printed in 1894, collected in *Han'guk munjip ch'onggan* vol. 83. 鄭忠信 (1576-1636). 晚雲先生年譜 *Chronicle*, 1621.

³⁷ *Injo sillok* 46: 3A (1645.2.10). 下教于政院曰: "東西活人署染病人出幕者幾人乎?" 政院啓曰: "兩署出幕病人, 六百九十六人, 死者八人, 永差者二百七十一人, 時留病幕者四百十三人云。" 時, 京師癘疫連歲大熾, 閭巷間無乾淨之家, 死亡者亦不知其數, 而東、西活人署出幕救活者, 皆士大夫家僕隸也。

³⁸ *Injo sillok* 46: 3A (1645.2.10).

the official institute Hwarinsŏ itself. For example, when epidemics struck the capital in 1662, aside from 1,990 patients at Hwarinsŏ, another 2,371 patients were quarantined in private tents, according to a report on the eleventh day of the fifth month, 1662.³⁹ With the severity of epidemics, private patients increased every day and in the sixth month, over four thousand people were reported to be in these facilities.⁴⁰ At another epidemic peak in 1671, Hwarinsŏ only received a thousand patients in total while 7,860 patients stayed in the private quarantine area in the fifth month of that year.⁴¹ According to statistics in the sixth month, the number of adults and children reached up to 19,528,⁴² and over 20,000 patients were sent to the private-run tents, so many that cloth for tent and curtains was running out.⁴³ The Chosŏn censors reported that ‘tents were as crowded as if they were woven together’,⁴⁴ and ‘tents were attached to each other in blocks, connecting villages, and pressing on both sides of the road.’⁴⁵

Parts of the tents were set up as an extension of Hwarinsŏ to accept the infected in the Hansŏng suburbs. Usually, infected people would first be treated at one of three central medical institutes: Royal Medical Institute (Chŏnŭigam 典醫監), Office of Benefiting the People (Hyeminsŏ 惠民署), and Hwarinsŏ. Of these, only Hwarinsŏ would house patients while the other two institutes provided medicine. Given the insufficient space in time of great famines, tents were established by the Bureau of Relief (Chinhyul’ch’ŏng 賑恤廳) and the Ministry of Taxation (Hojo 戶曹) to provide more space for infected people.⁴⁶ The Ministry of Taxation was probably responsible for the construction money and the supply of materials such as clothing and timber. The daily operations of these public-owned tents were still run by Hwarinsŏ and from the

³⁹ *Hyŏnjong sillok* 7: 10A (1662.5.11).

⁴⁰ *Hyŏnjong sillok* 5: 37B (1662.6.20).

⁴¹ *Hyŏnjong sillok* 19:23A (1671.5.11).

⁴² *Pibyŏngsa tŭngnok*. *Hyŏnjong* 12. 1671.6.3.

⁴³ *Hyŏnjong kaesu sillok* 24:16A (1671.6.3).

⁴⁴ *Hyŏnjong sillok* 19:26B (1671.6.2).

⁴⁵ *Sukjong sillok* 67:46A (1717.6.17).

⁴⁶ *Mangi yoram* 萬機要覽 in two volumes (1808). Sim Sangkyu 沈象圭 and Sŏ Yŏngbo 徐榮輔 ed. Seoul: Kyŏngin Munhwasa 景人文化社, 1972. Kyŏngjung sŏlje 京中設賑. 癘氣熾盛則使兩醫司, 活人署救療. 賑廳, 戶曹造給病幕。

1660s onwards, private tents appeared in areas surrounding the capital.⁴⁷

The private tents in the capital suburbs were mainly arranged by the elites and powerful households (*t'oho* 土豪), and the government supported some crops, which could meet some essential needs of the poor.⁴⁸ A wide distribution of private quarantine tents was able to house more lower-class people and even some displaced and starving people from other regions. This enlarged the social class of beneficiaries, in contrast to Hwarinsŏ, which usually only served *nobi* from elite families. In other words, these statistics imply that the private quarantine facilities shared with official institutes the burden of addressing epidemic outbreaks by quarantining infected people.

Quarantine tents also appeared in local regions, mainly supervised by provincial governors and sometimes with the help of elites. According to an anthology compiled by the Minister of Finance Kwŏn Tŭkŭi (權得誼 1631-1691), a village where he lived in Chŏlla province was afflicted by epidemics in 1671. Infected people were expelled to quarantine facilities and continued to die there, but later the majority in the tents survived thanks to supplies of porridge that he provided.⁴⁹

These quarantine spaces were not simply for isolation; they also functioned as the location from which to distribute relief food. Patients were given rice, although sometimes the provision warehouse ran out of rice and the practice would stop. Usually, they would be provided food, salt, and even seasoning.⁵⁰ These supplies were allotted by

⁴⁷ *Sŭngjŏngwŏn ilgi* 174. Hyŏnjong3. 1662.6.26. 韓震琦, 以賑恤廳言啓曰, 今二十日承旨持公事, 玉堂請對入侍時, 都城外私出幕病人成冊, 量宜給糧事, 命下矣。卽爲分付各部, 使部官, 親往摘奸成冊, 則東西南北四部私幕病人所報之數, 老弱竝通計四〇〇〇十名, 每一名, 十日乾糧米各六升, 合一百七十四石分給, 而使部官·活人署官員, 眼同均給之意, 敢啓。答曰, 知道

⁴⁸ *Hyŏnjong kaejong sillok* 24:10A (1671.5.11). 備邊司啓曰: "出幕病人, 分遣本司郎廳, 摘奸給糧, 曾有命矣。東西道, 今已畢分給, 兩活人署所管一千餘人之外, 方在私幕者, 七千八百六十餘名。以賑恤廳米, 計給糧米, 而必不無落漏之人。時方連續出幕者, 亦不知其數云, 死亡之多, 推此可知。事甚矜惻, 其中出幕身死, 而其族屬, 或已草殞, 或方營掩埋之具者甚多。此則不爲舉論, 僵屍在路上, 無人收瘞, 或已腐破, 或爲烏鳶之啄者甚多。此蓋當該官員不能舉職之致。請姑先從重推考, 以警日後。" 上允

⁴⁹ Im Sŏngju 任聖周. *Nongmun sŏnsaeng munjip* 鹿門先生文集, Vol. 24, first printed in 1795, collected in *Han 'guk munjip ch'onggan* vol. 228. 權公得誼墓碣銘. 辛亥大饑疫。村人病出幕者死亡相繼。公使婢持粥就幕。以次饋之。日以爲常。家人交諫。公毅然曰死生有命。何可拘俗忌。坐視其餓死而不救乎。於是病人全活者甚衆。公亦卒無恙。父老咸嗟嘆之。以爲比庾袞尤難云。

⁵⁰ *Hyŏnjong kaesu sillok* 15: 48B (1666.3.7). 常平廳啓曰: "設粥賑救, 專爲飢民糊口, 而卽今食粥者, 三四百名, 舉皆士夫家奴婢, 無告窮民, 不過若干名, 誠可寒心。貧寒士人, 不能食其奴婢, 致有飢餓之患, 則以飢民置簿, 容或可也, 至於有職士夫家奴婢, 亦錄以飢民, 一體賑粥, 此豈朝家設賑本意哉? 請令各部, 查出無依飢民, 依例賑

different age groups: strong young men (壯) received two litres of rice, and a litre of millet was given to children in the private quarantine area at a suburb in the 1671 epidemic year.⁵¹ Despite the small amounts of rice, it was still much for displaced and starving people, and they even came from the northern and western parts of the peninsula on hearing the relief news.⁵² In addition, the two central medicine institutes, Royal Medical Institute (Chönūigam) and the Office of Benefiting the People (Hyeminsō) could manage to provide traditional medicine to those patients quarantined in the tents: for example, *sibsint'ang* (tenfold spiritual decoction 十神湯), *isōnggu kohwan* (double sage rescue from suffering pill 二聖救苦丸).⁵³ In the beginning, the medicine allocation was only accessible to patients in the public tents but later in the late seventeenth century the government also tried to provide some to the private tents in the capital suburbs.⁵⁴

Problems exposed in quarantine

In general, expulsion to the tents only cured a few people and the majority died. Hence the tents were described as ‘a land of death’, and this image remained even in subsequent centuries. Yi Hangno (1792-1868) recorded,

...in recent days one who is sick has to be sent to the tents. This is a land of death where air from the earth rises and air from the outside comes in.

粥，士夫鰥寡孤獨絕火之家，則題給乾糧，俾無餓死之患。且城中癘疫方熾，請令兩活人署，出置病幕之類，亦量給乾糧、鹽醬。”上可之。

⁵¹ *Hyōnjong kaesu sillok* 24:16A (1671.6.3). 備局啓曰：“東西活人署去月以後，染氣益熾，城外出幕之數，日漸增加，不可無別樣救濟之舉。又爲分遣郎廳摘奸後，自前月十七日以後，逐日分給糧米，至二十九日畢給。兩活人署所管及東西城外私幕病人，壯弱竝一萬九千五百二十八名，以賑恤廳米，壯則二升，兒則一升，分給大小米，合二百餘石矣。

⁵² *Hyōnjong sillok* 13:50A (1667. Intercalary 4.23). 丁酉/時染病大熾，都下民人，出幕城外及接置東西活人署，幾至數千，而關東、關西流丐之民，接踵而至，竝令五部，知其實數，各給糧資。

⁵³ *Pibyōngsa tūngnok*. Hyojong7. 1656.1.29. *Sukjong sillok*35:30A(1698.12.10).

⁵⁴ *Sūngjōngwōn ilgi* 181. Hyōnjong4. 1663.10.11. Rōje tūngnok 厲祭謄錄 [Transcribed records on ritual for abandoned spirits]. vol 1, Kyu.12880, 031a, Kyujanggak Institute of Korean Studies, accessed October 11, 2021) 先以俗方治療之意分付爲白遣，今方鳩聚材料劑送二聖救苦丸，及十神湯等藥陸續分送各邑，

⁵⁴ *Sūngjōngwōn ilgi* 181. Hyōnjong4. 1663.10.11.

It is cold in winter but humid in summer. Even healthy people would be sick by living there let alone those having heavy diseases, who are definitely going to die.⁵⁵

Such terrible scenery at quarantine frightened people and so people were worried about their beloved ones being sent to the tents. For example, Ch'oe Hŭngwŏn (1708-1786), a civilian officer and scholar, mentioned expulsion to tents twenty-five times in his diary, which recorded events that took place in several towns in Kyŏngsang province.

Whenever he heard of someone exiled to the tents, he would express his sympathy to the infected ones. It was because he knew the slim chances of coming back. Those quarantined were his family members, elite friends, neighbours, *nobi*, and the strong men in the town.⁵⁶

The low survival rate exposed some drawbacks in the implementation of quarantine despite its aim of relief. Primarily, the unsanitary and poor living environment presented threats of secondary infection and made life tough. It was extremely cold in the winters because the bed coverings were not thick and patients easily froze to death.⁵⁷ In summer, curtains could not keep out the rain, and a large number of patients caused a shortage of cloth during the severe epidemic year of 1671.⁵⁸ A severe epidemic in the 1690s brought home to Chosŏn officials the necessity of improving the living environment of the quarantine tents, so they installed straw mats to protect patients from rain and sun in 1698.⁵⁹ Officials also suggested using stones and beam wood to reinforce the tents better.⁶⁰ Nonetheless, due to the lack of budgets for the quarantine facilities, those quarantined did not get access to effective treatment.

⁵⁵ Yi Hangno 李恒老. *Hwasŏ sŏnsaeng munjip* 華西先生文集, vol. 7, 1899, collected in *Han'guk munjip ch'onggan* vol. 304-305.

⁵⁶ Ch'oe Hŭngwŏn 崔興遠. *Yŏkchung ilgi* 曆中日記, Vol.1 (1742. 10. 20). Accessed November 25th 2020, <https://diary.ugyo.net/>. 晴。慈候如昨。仲君又步入謁親。從此漸入蔗境。默禱于天。任醫病不踐約。可歎。仁發尚萬邁癘。自北山馱來。令出幕。可憐又恻心。

⁵⁷ *Pibyŏngsa tŭngnok* 9. Injo23. 1645.11.12. 且冰雪寒沍之中，上下四方，蓋覆之物不厚，則生道亦難。Yun Chŭng 尹拯. *Myŏngjae yugo* 明齋遺稿 [Bequeathed draft of Myŏngjae], vol.28, 1732, collected in *Han'guk munjip ch'onggan* vol. 135-136. Yŏja haengkyo [Teachings to sons]. 尹拯 (1629-1714).

⁵⁸ *Hyŏnjong kaesu sillok* 24:16A (1671.6.3).

⁵⁹ *Sukjong sillok* 32:30B (1698.6.28). *Sukjong sillok* 67:46A (1717.6.17).

⁶⁰ Kim Ku 金構, *Kwanbokchae yugo* 觀復齋遺稿, Vol. 4. Accessed July 3rd, 2021, <https://diary.ugyo.net/>. 1698.9.27. 疏筭。辭職兼陳所懷疏。

Secondly, pre-modern Korean quarantine did not completely block the transmission routes, because people were still infected by air or contact transmission among the isolated people. Soldiers coming from the frontiers far away and residents were mixed together and the contact led to cross-infection.⁶¹ Only those showing symptoms were quarantined first, while those who were healthy but exposed were ignored during their incubation period. The British quarantine proclamations during the plague around 1636 also proved that quarantine commingled the sick and the well, and increased the death toll.⁶² Likewise, unsystematic quarantine led to low survival rates in Korean quarantine areas during the seventeenth century.

There were many other problems caused by the lack of a powerful and careful administration. There were infected people who were not sent to quarantine but still stayed at the capital.⁶³ The Chosŏn government failed to address dead bodies in the tents, properly and promptly removing them, which caused secondary infections.⁶⁴ Such loose management in quarantine provided criminals chances to escape from punishment by using the excuse of quarantine.⁶⁵ Also, quarantine tents were flammable, which became a life-threatening problem. For example, nine infected people died in a fire in 1699, and other tent fires claimed twenty lives in Kyŏngju and sixteen lives in Chŏlla province.⁶⁶ All of these accidents took place in winter, which exposed a severe management problem in quarantine tents. As a result, quarantine was not efficacious in saving lives but dispatched the infected to die alone in cold quarantine tents, a situation criticized by the Confucian scholar Yun Chŭng (尹拯 1629-1714) in the early eighteenth century. Nevertheless, the quarantine facilities remained unchanged, although the infected needed a warm place and care from their family.⁶⁷

⁶¹ *Sŭngjŏngwŏn ilgi* 441. Sukjong34. 1708. Incalary 3.13. 本營則自正月至五月, 湖西軍兵鱗次上番, 而即今上番軍兵中, 癘疫出幕者, 其數甚多, 亦有死亡, 已極驚慘, 都民之因此薰染, 亦涉可慮。

⁶² Newman, 'Shutt Up', 812.

⁶³ *Pibyŏngsa tŭngnok* 30. Hyŏnjong12. 1671.4.13.

⁶⁴ *Pibyŏngsa tŭngnok* 30. Hyŏnjong 12. 1671.4.24.

⁶⁵ *Sŭngjŏngwŏn ilgi* 373. Sukjong23. 1697.8.7. *Sŭngjŏngwŏn ilgi* 427. Sukjong31. 1705.12.19.

⁶⁶ *Sŭngjŏngwŏn ilgi* 218. Hyŏnjong11. 1670.1.19. 全羅監司書目, 井邑等官呈, 以染病出幕人, 幕中失火, 九名燒死事。平安監司書目, 平壤·龍岡·三和·咸從·江東等官呈, 以本月初九日星殞之變, 與中和所報, 一樣事。

Sŭngjŏngwŏn ilgi 383. Sukjong25. 1699.1.30. 又書目, 慶州等官〈呈〉染病出幕之中出火, 人物燒死者, 至於二十名之多, 尤極驚慘事。 *Sŭngjŏngwŏn ilgi* 383. Sukjong25. 1699.1.30. 金堤等邑, 染病出幕中出火, 燒死之數, 至於十六名之多事。

⁶⁷ Yun Chŭng. *Myŏngjae yugo* 明齋遺稿, vol.28, 1732, collected in *Han'guk munjip ch'onggan* vol. 135-136. Yŏja

Quarantine on islands

The usual relief measure of rice distribution exposed the potential of assembling more displaced people and spreading communicable infectious diseases. While infected people from elite families were treated in the central medical institute and ordinary patients were sent to the tents, there was still a large number of displaced people with nowhere to go due to the great famines. In the famine year of 1696, the capital city was full of beggars: mothers and children were all crying on the road, dying of hunger. Numerous dead bodies buried outside the city were described as extremely pitiful.⁶⁸ People scattered for food in famine years and gathered quickly when they heard about any news regarding porridge provisions. People from the north in particular had travelled a long way to the capital for food. Wherever the infected people moved, they would spread disease so another communicable epidemic broke out when people gathered at the porridge distribution sites. In addition, once arriving in the capital, they had no means to support themselves but were forced to steal.

Fearing social disorder and further epidemic transmission, the government found a place to quarantine displaced people. Aware of the problems brought by the displacement, minister Yi Sewha (李世華 1630-1701) suggested assembling all the starving people at Hansŏng and sending them to the nearby islands with a supply of provisions. Given that commoners might pretend to be poor to receive relief rice, he reminded officers to check the people carefully. Once on the island, they were not allowed to leave without permission, thus alleviating the pressure on the capital caused by the large numbers of displaced people.⁶⁹

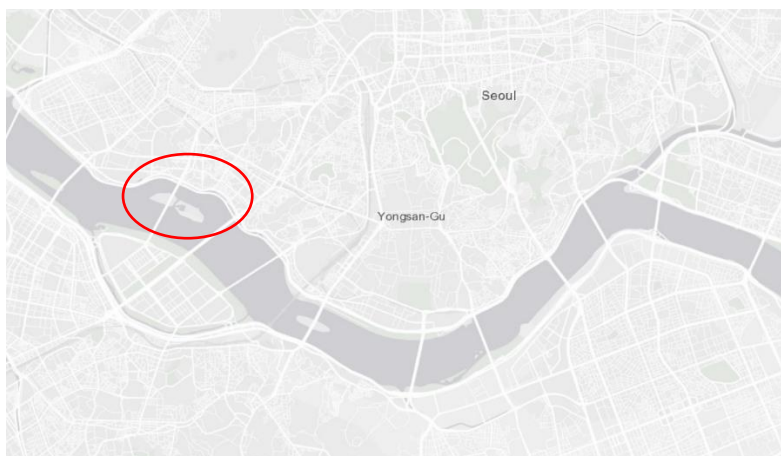
haengkyo [Teachings to sons]. 聞青陽守邑內之以病出幕者。皆令還入曰。民一也爲生者。而使病者。徑致凍死不忍也云。此實古人之政也。比來病者之多死。蓋由於出幕。須申飭之。必令病幕完固。且令安堞如酒幕。且令其家人同出救護。俾無凍死之患可矣。此亦政也。不可忽也。牧民心鑑一冊。極好看。極有要語。故送去。精謄而常覽可也。

⁶⁸ *Sūngjŏngwŏn ilgi* 377 Sukjong24 (1698.2.16)尹趾善曰, 都下流丐遍滿, 母子兄弟, 扶携呼哭於路上, 仍爲餓斃, 埋葬城外, 極爲愍惻。

⁶⁹ *Sūngjŏngwŏn ilgi* 369: 1697.1.5.且今年, 賑穀無餘, 難以盡活, 莫如收聚飢民於一處, 載送京畿近島中, 計其名數, 給其資糧而救活之爲宜也。若然則飢民精抄, 而無虛實相雜之弊, 且一入島中之後, 不得任意出入, 似無流

Following this plan, displaced people were eventually sent to Yuldo island (literary translation. Pamsöm 栗島), also referred to as Yulju 栗州 or Kasan 駕山. This island in the Han'gang River, which was seven *li* in length, was located 10 *li* away from the southwestern part of the capital and to the south of Map'o 麻浦. Because of the continuous outbreaks in the late seventeenth and early eighteenth centuries, the Office of Royal Physicians (Naeüiwön) arranged some lands for herbal medicine on the island.⁷⁰ The geographic location of Yuldo for the isolation of displaced people reminds us of the island of Lazzaretto Nuovo in Venice, which served as an isolation hospital, quarantine centre, and convalescent home between the fifteenth and eighteenth centuries.⁷¹ However, they functioned quite differently. Yul-do isolation was a temporary relief policy to assemble and help a small number of displaced people, while plague hospitals at Lazzaretto showed more features of the early modern medical care and medical treatment to quarantine all the sick and even those ships from countries struck by the plague in order to keep Venetians safe. Hence the quarantine facilities on the two islands showed some commonalities but more differences.

Figure 21 Map of Yuldo Island



離失所之患矣。

⁷⁰ *Sungjōngwŏn ilgi* 440. Sukjong34. 1708.2.25. 南至熏, 以內醫院都提調之言啓曰, 本院種藥田, 在於栗島, 當初元數八結三十負零, 種植藥材, 以爲不時之需。自十餘年以來, 爲水所衝, 處處浦落, 不至大段矣。上年無前之水, 已盡衝破, 時存者不過一結餘, 許多草藥, 繼用可慮。得聞汝於島司畜署所屬田, 與藥田接界, 而其數幾至百餘日耕云。藥田附近處五六日耕一庫, 使之割給, 以爲及時種藥之地, 何如? 傳曰, 允。

⁷¹ Jane L. Stevens Crawshaw, *Plague Hospitals: Public Health for the City in Early Modern Venice* (Burlington, VT: Ashgate Publishing, 2012).

The first group of displaced people was sent to isolate at Yuldo island in the third month of 1697. Over four hundred displaced people were assembled and sent to the island while a hundred of them turned out to be adoptees and escaped *nobi*, so they were returned.⁷² Finally, 312 people, who had been scattered across various parts of the capital, were shipped to the island.⁷³ Another 59 people were sent a few days later in the third month of 1697.⁷⁴ During the time they were quarantined on the island, the government gave these people money to buy porridge. However, the amount they were given was only enough to support a person to survive to the autumn harvests.⁷⁵

Because further relief went beyond the reach of the government, the court put forward various rewards to motivate more locals to participate in adopting the displaced people and registering them in their households. First, Yi Sewha suggested calling for more adopters to treat the displaced people as their children or *nobi*, so only those not adopted were sent to the island and the other local administration also sought adopters even for those sent to Yuldo island.⁷⁶ The adopters were either given the right to possess the adoptees as their children or as labours, and their names were recorded in the household registers according to the law.⁷⁷ Or some adopters were allowed to collect firewood in the restricted pine forests in exchange for adopting displaced people.⁷⁸ Such

⁷² *Sūngjōngwŏn ilgi* 370. Sukjong23 (1697.3.22) 晝講時, 知事李世華所啓, 頃者都下流丐, 聚集栗島者, 四百餘名, 而其中京江都城之民, 願爲收養, 其成給立案者, 五十餘名, 有主還推者, 五十餘名, 尤甚無依之類, 三百數十餘名, 自今至五月十七日, 分給乾糧, 入送諸島, 而許多人命, 必須着實安接, 可免填壑之患, 故臣欲爲親往看檢, 而廟堂, 以爲重大, 只送郎廳矣。

⁷³ *Sūngjōngwŏn ilgi* 370 Sukjong 23 (1697.3.11). 金宇杭, 以賑恤廳言啓曰, 都城流丐飢民等, 入送京畿沿海諸島事, 既已定奪, 節目啓下矣。五部流丐之徒, 今初十日爲始, 聚點於栗島, 則各部查括領來之際, 或有虛實相雜之弊, 故問其根脚, 十分精抄, 摠其元數, 則三百十二名, 今方作粥分饋, 而各處散在之類, 猶未盡數收合。故更爲申飭漢城府, 使之無遺搜括, 鱗次交付, 二三日內, 當爲載船, 分送各島, 領去之官, 則依啓下節目, 備邊司郎廳李泳, 定送之意, 敢啓。傳曰, 知道。

⁷⁴ *Sūngjōngwŏn ilgi* 370. Sukjong23. (1697.3.12). 則昨日啓下三百十二名外, 追後來到者, 又至於五十九名, 今日又爲追到, 則其數必過四百餘名矣。

⁷⁵ *Sūngjōngwŏn ilgi* 370. Sukjong23 (1697.3.13). 則入送島中之後, 若停設粥, 無可乞食資活之路, 亦不可爲此設粥, 故江上各倉庫直處, 姑爲分授, 且給粥資, 使限秋, 成前救活之意, 言于李世華矣。上曰, 依此爲之, 似好矣。

⁷⁶ *Sūngjōngwŏn ilgi* 371. Sukjong23. 1697.4.5. 取募於三江之民, 則亦有應募者, 故卽爲定奪, 成給立案, 使之收養, 或爲其子女, 或爲其奴婢, 其餘則分送島中, 今日之舉, 亦依此例, 此例別無分而二之之事, 而只爲飢民救活之計矣。Park Ilwŏn. *Ch'ugwanji* 秋官志. Vol. 6, 1781. 考律部, 定制, 賑恤廳事目, 流丐人率養立案。1697. 今歲此舉, 異於常時, 年歲大侵之餘, 父不得保其子, 主不得保其奴, 或爲路上餓殍, 或爲閭家竊盜, 慘目之事不一而足, 朝家特軫人命之垂盡, 有此分授島民濟活之舉。

⁷⁷ Kim Kyeongsook 김경숙, '16,17 segi yugia suyangbŏpkwa minganŭi chŏnyong -1661 nyŏn Sŏwŏnhyŏn sosongŭl chungsim ūro 16, 17 세기 유기아수양법과 민간 의 전용 -1661 년 서원현 소송을 중심으로', *Komunsŏ yŏn'gu* 고문서연구 57 (2020): 195.

⁷⁸ *Sūngjōngwŏn ilgi* 371. Sukjong23. 1697.4.5. 今日引見時李濡建議, 募得閭巷間自願收養者四十八人, 將爲成給枯松帖, 而其餘一百二十餘人, 則昨日自京兆, 略給若干錢文, 而今若置之而不恤, 則勢將盡劉, 前頭牟麥發穗

bonuses to adopters successfully invited the locals to participate in the relief project. Some 48 people showed their willingness to adopt in the fourth month of 1697. In this way, isolation of the displaced people on the island had a temporary effect in solving the displacement and reducing the further epidemic transmission by displaced people in the capital. Therefore, this isolation policy continued into a second year in 1698.

Although displaced people were quarantined and restricted from leaving the island, epidemics did not stop spreading. Partially, this was because the two quarantine practices in 1697 and 1698 did not last long. As official statistics show (Table. 8), up to 875 people on Yuldo came to get porridge in the fifth month of 1697, and among them, there were over 175 people who were infected or even died.⁷⁹ Because of the barley harvest in autumn and financial pressure on crop provision, four-fifth of the remaining displaced people sent there were soon returned in the fifth month of 1697 but over half died on their way, while one-fifth were children, the poor, and those who stayed to receive porridge on the island.⁸⁰ According to the Relief Department in 1698, there were 770 famine victims receiving porridge at Yuldo from the 10th day to the 20th day of the fifth month of 1698; 121 people went back to farming, 20 people were adopted as labours or registered in owners' households, 132 people died, 150 infected people were sent to the Hwarinsŏ for further medical treatment or quarantine, 145 fled away in secret, and 211 people stayed as famine victims. Among those who stayed, 125 were strong men, and 86 were weak (弱).⁸¹ These statistics, nonetheless, suggest a small

後, 必有貽害之端, 亦甚可慮。

⁷⁹ *Sukjong sillok* 31:32B (1697.5.25). 甲辰/放送栗島飢民。栗島前後就粥之類, 男女竝八百七十五名, 而除物故染病者, 餘數七百餘名。至是以麥秋已至, 從其願出送, 而計其程道遠近, 各給糧以遣之。然既出之後, 無所得食, 死者又過半。

⁸⁰ Yi Sehwa 李世華. *Ssangbaektang sŏnsaeng-jip* 雙柏堂先生集 Vol.2. 1723, accessed 2021. 5. 22, Jangseokgak Institute for Korean Studie. 辭吏曹判書疏(再疏).且臣之監賑栗島。已數朔矣。卽今飢民稍蘇。牟麥已出。自願還歸本土。給糧出送者。逾過五分之四。兒弱癯病之無依歸者。姑爲仍留饋粥。而粥資垂盡。島中之貽弊漸滋。從當稟議廟堂。講究區處之道。 *Sukjong sillok* 31:32B (1697.5.25).

⁸¹ *Sŏngjŏngwŏn ilgi* 378. *Sukjong*24. 1698.5.21. 趙相愚, 以賑恤廳言啓曰, 栗島饋粥飢民, 自五月初十日, 以二十日至, 前在加入, 竝元數七百七十九名內, 前後通計, 自願歸農, 一百二十一名, 雇工收養立案成給率去, 二十名, 物故, 一百三十二名, 移送活人署, 一百五十名, 潛自逃走, 一百四十五名, 卽今仍留飢民, 二百一十名內, 壯一百二十五名, 弱八十六名矣, 敢啓。傳曰, 知道。

number of adoptees with the majority composed of the dead and infected people.

Table 8. Destinations after the release of the quarantined people

Year	Total	Farming	Adoptees	Death	Infection	Escapees	Remainders
1697	875	≈ 262	unknown	≈ 175+263		unknown	≈ 175(25%)
1698	770	121	20	132	150	145	211

Nonetheless, the fact is that continuous death from infection exposed the incomplete implementation of strict quarantine. First, a large group of displaced people left the island after a short-term quarantine, when the epidemic was still rampant in the 1690s. Quarantining displaced people on islands and releasing them soon after was a contradictory measure against the infection. As they were displaced people, they probably did not have farmlands on which to rely. For example, the report of Chosŏn minister Yi Sewha at Yuldo Island depicted a story of one displaced person called Park Chŏn from Tongchŏn county. He sold his lands for food before coming to the island with his family. Since there was nothing to rely upon if he were to return to Tongchŏn, he insisted on remaining on Yuldo island. Likewise, once those displaced people left the island without crop provisions, they probably could not find farmlands but wandered around and worsened the epidemic transmission. This also explains why over half of the released people died of starvation and infection along the way, although they received some food in accordance with their distances before setting off.⁸²

On the other hand, those who chose to stay on the island also had a difficult time providing for their daily needs. The difficulties were not only due to the famine but also to the local dominant power. In the report by minister Yi Sewha, he mentions the Park family and their wish to have a piece of land on Yuldo island to cultivate the late-maturing grains and make a living and submit taxes. Aside from having porridge, Park could not find any other way to survive but cut grass and shrub on the island and sold it to households on the coastline in order to buy some rice. Not long afterwards, he was

⁸² *Sukjong sillok* 31:32B (1697.5.25).

stopped from grass-cutting by a force from a so-called royal family and even his sickle was robbed. This report suggests that the locals bullied the newly arrived displaced people on Yuldo island.⁸³

Seemingly, this pre-modern practise of quarantine achieved the effect of confining the zone of activities and restricting the potential epidemic transmission. The government expected to stop the flow of potentially infected displaced people coming to the capital, but on hearing that the government offered relief to displaced people on the island, more displaced people wanted to come and some of them even froze to death on their way to the capital.⁸⁴ The implementation of quarantine was incomplete and temporary, as most quarantined people were simply released and hundreds of people died of infection and starvation.

Quarantine on Yuldo island worked in conjunction with other political, legal, and economic measures such as food distribution, child adoption, and logging permission granted to adopters. However, permits to gather withered pines attracted those who were otherwise unwilling to be adopters, but they logged more than withered pines; they also logged healthy pines to gain the logging bonus, which presented a threat to forests.⁸⁵ As a result, the practice of quarantine was abandoned when epidemics struck again in 1699.⁸⁶

Disaster relief versus medical care?

Having discussed two different types of quarantine practices from seventeenth-

⁸³ Yi Sehwa 李世華. *Ssangbaektang sŏnsaeng-jip* 雙柏堂先生集 Vol.2. 1723, accessed 2021. 5. 22, Jangseokgak Institute for Korean Studies.

⁸⁴ *Sŭngjŏngwŏn ilgi* 371. Sukjong23. 1697.4.5. 今日引見時, 領議政柳尙運所啓, 京外飢困, 今方孔棘, 元居者亦多死亡, 流丐之類, 不能資活, 其勢固然, 都城內流丐三百餘人, 頃已分送諸島, 而其後連續繼至, 多有僵死於街路者, 一向愬視, 亦甚愍惻, 故分付京兆, 使之抄出矣。

⁸⁵ *Sŭngjŏngwŏn ilgi* 371. Sukjong23. 1697.4.22. For more research on the usage of firewood in the pre-industrial world and environmental history of pine tree policies on the Korean peninsula, see John S. Lee, 'Protect the Pines, Punish the People: Forests and the State in Pre-Industrial Korea, 918-1897' (PhD dissertation, Harvard University, 2017), 224.

⁸⁶ *Pibyŏngsa tŭngnok*. Sukjong29. 1703.3.2. 金構曰, 曾前流丐, 入送栗島之事, 民到今稱冤不已, 今不可更爲此舉

century Chosŏn Korea, this section views them in comparison with measures against natural disasters. I argue that quarantine in Korea served more as a relief policy with limited medical functions.

Firstly, however, there is a need to distinguish some of the key terms. In particular, we need to clarify concepts of medical treatment and welfare that are mentioned in classical Chinese texts, in order to answer the remaining question of how the Chosŏn-era Koreans perceived quarantine. Since Chinese culture and policies had a profound influence on the Chosŏn dynasty, a comparative study of China helps us to understand the background of the Korean case. Du Jing discusses health care (*C. yiliao fuli* 醫療福利) in the Song dynasty (960-1279) and notes that the expressions of ‘medical treatment (*C. yiliao* 醫療)’ and ‘welfare (*C. fuli* 福利)’ can both be found, but they are used separated in Chinese texts. Medical treatment meant some basic measures such as doctor visits and medicine distribution, while welfare referred to relief and general benefits for people.⁸⁷ With these definitions, Du further argues that the Song dynasty had a system of health care and views the quarantine of displaced people as one such practice.

Similarly, terms for welfare and medical treatment also appeared separately in Korean historical documents. The term welfare (K. *pokchi* 福利) meant relief and help, and it appeared more in the community contracts (*hyangyak* 鄉約), where virtue was emphasized.⁸⁸ Within this reciprocal organization, members were expected to help each other in times of need and disaster. Times of need included medical problems. For example, if one person got sick, the other villagers would have a responsibility to help him.⁸⁹ If farming was impossible due to infection, then neighbours would help to plant,

⁸⁷ Du Jing 杜菁, ‘Songdai yiliao fuli zhidu 宋代医疗福利制度’ (Ph.D. diss., Beijing, Beijing University of Chinese Medicine, 2016.5); See also Asaf Goldschmidt, *Song Government and Medicine – the Case of the Imperial Pharmacy, Science and Confucian Statecraft in East Asia* (Brill, 2019), 45–86.

⁸⁸ *Sŏngjong sillok* 117: 14B (1480.5.25). 臣恐四方之民, 必將棄所業, 羸糧而來, 見其所以靈異者, 以求福利。 Paek Ch’ŏl-hyŏn 백철현, *Chosŏn sidaeüi sahoe pokchi chŏngch’ aek e kwanhan yŏn’gu* 朝鮮時代의 社會福祉政策에 관한 研究 (Seoul: Han’guk haengjŏng sahakhoe 한국행정사학회, 1996).

⁸⁹ Kwak Hyomoon 곽효문, ‘Chosŏnjo hyangyak ūi pokchi haengjŏng kinŭng kwa ūiüi 조선조 향약의 복지 행정기능과 의의’, *Haengjŏng nonch’ong* 행정논총 41, no. 1 (2003): 23–45.

seed, weed, and harvest.⁹⁰ Given the medical overlap with pre-modern Korean welfare, current Korean scholarship notes several types of medical welfare in the Chosŏn dynasty including health care such as medical institutes for royal families, officials, and commoners and a medical system of female doctors. Quarantine is not included.⁹¹

Quarantine's functions were to relieve infected and displaced people and block potential transmission, and these functions seem to provide a system of medical welfare. However, as I will argue below, by examining seventeenth-century Chosŏn records related to quarantine, it is apparent that quarantine measures were less concerned with medical welfare than with disaster relief and with reducing the pressure on social order caused by famines and epidemics. This was the case even when there was the distribution of medicine or the application of medical approaches to block epidemic transmission. In addition, it was because of the shortages of medical resources and class discrimination against infected bodies and displaced people so they were simply sent far away.

The Chosŏn government considered epidemics to be a kind of natural disaster (*ch'ŏnjae* 天災), rather than a medical crisis, and this view can be dated back to the Three Kingdoms period or approximately the fourth to the seventh centuries. Epidemic related records in the *Samguk sagi* 三國史記 (History of the Three Kingdoms) tended to be grouped together with extraordinary natural phenomena. For example, 'Epidemics broke out and many people died. In the eleventh month, there was no ice.'⁹² 'In the second month of spring, one big star fell in the western suburb of the capital; it sounded like thunder. In the third month, the capital was struck by epidemics.'⁹³ Likewise, earthquakes, monsoon rains, floods, droughts, frosts, high temperature, and other natural phenomena were all connected to epidemic outbreaks in *Samguk sagi*.⁹⁴ Since

⁹⁰ Kim Ku 金構, *Pugae sŏnsaeng munjip* 北厓先生文集 vol. 3, collected in *Han'guk munjip ch'onggan* vol. 5.

⁹¹ Kwak Hyomoon 곽효문, 'Chosŏnjo ūi ūiryo pokchi chŏngch'aek ūi hyŏndaejŏk ūi ūi e kwanhan yŏn'gu 조선조의 의료복지정책의 현대적 의의에 관한 연구', *Han'guk haengjŏngsahakji* 한국행정사학지, no. 18 (2003): 1-34.

⁹² *Samguk sagi* 三國史記[History of the Three Kingdoms], Annals of Silla, vol.1, Namhaech'ach'aung 南解次次雄, the nineteenth year(22).

⁹³ *Samguk sagi* 三國史記[History of the Three Kingdoms], Annals of Silla, vol.1, Chimaisakŭm 祗磨尼師今, the ninth year(120).

⁹⁴ Choi Seongwong 최성웅, Yoo Woonjun 유원준, and Kim Hongkyoon 김홍균, 'Kodaendŭl ūi yŏkpyŏng insik-Samguk sagi rŭl chungsim ūro 고대인들의 역병 인식 -<삼국사기>를 중심으로', *Han'guk Hanŭihak yŏn'guwŏn*

outbreaks and extreme climate do not necessarily occur simultaneously, such historical writing suggests the ancient Korean perception of epidemics as a kind of natural disaster. Such perceptions are corroborated in folk tales where epidemics are depicted as embodied supernatural powers called ‘gods of epidemics’ (*onsin* 瘟神).⁹⁵ Of course, natural disasters destroyed living conditions and claimed human lives, and if corpses were not handled properly, epidemics were highly likely to occur in times of disasters.

Nonetheless, if we take on the hypothesis that epidemics were viewed as a natural disaster, then we should also note that government responses did not differ much in its relief approaches: measures against epidemics, such as ritual ceremonies, food distribution, and child adoption were similar approaches to those taken when floods or drought struck. For example, *Kukcho orye sorye* 國朝五禮序例 (‘Introductory Remarks on National Rituals’, 1474), finalised in the early Chosŏn dynasty, regulated Confucian rituals at the temple for abandoned ghosts (Rōjedan 厲祭壇). The rituals’ main purpose was to memorialize people who died of epidemic diseases without descendants who would have organized funerals.⁹⁶ Accordingly, every region arranged a temple for epidemic rituals (Figure. 22) as a holy place to perform a ritual for rain (*kiuje* 祈雨祭).⁹⁷

nonmunjip 한국한의학연구원논문집 13, no. 3 (2007): 42.

⁹⁵ Kang Sang-sun 강상순, ‘Chosŏn sidae ūi yōkpyōng insik kwa sinijōk sangsang segye 조선시대의 역병 인식과 신이적 상상세계’, *Ilbonhak yŏn’gu* 일본학연구 46 (2015): 74–80.

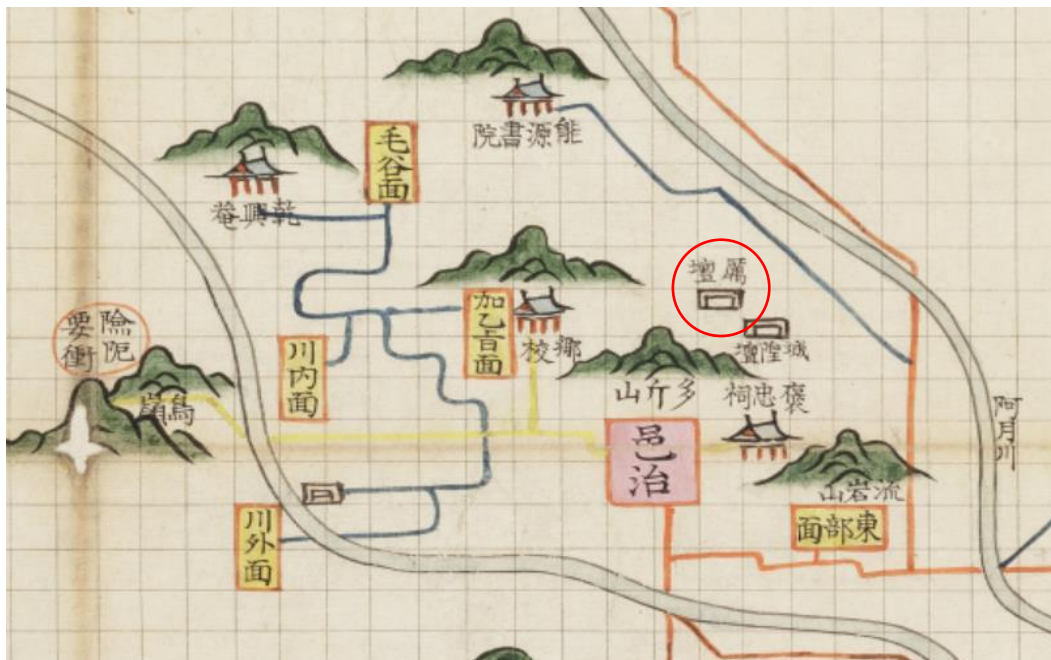
⁹⁶ *Kukcho orye sorye* 國朝五禮序例[Introductory Remarks on National Rituals], 1474, vol. 1, 185-v.1-2, 033b-033b, Kyujanggak Institute of Korean Studies, accessed November 9, 2021.

⁹⁷ Howard Kahm and Dennis Lee, ‘Begging for Rain: Economic and Social Effects of Climate in the Early Koryŏ Period’, *Journal of Korean Studies* 26, no. 1 (3 January 2021): 3–23.

Figure 22. Temples for epidemic ghosts⁹⁸



Figure 23 Temples for epidemic ghosts



In addition, natural disasters also held a political meaning in Confucian state ideology; natural disasters were a kind of punishment, a view that apparently remained unchanged into the nineteenth century. Based on Confucian ideology, the Chinese

⁹⁸ County map of Kōch'ang and county map of Kyōngsan, in Map of Yōngnam 嶺南地圖, 1725-1776, 12154-V.1-6, Kyujangak Institute of Korean Studies, accessed November 11, 2021.

emperor was the Son of Heaven (C. *tianzi*, K. *ch'ŏnja*, 天子) and represented heaven to manage the country. Koryŏ and Chosŏn kings were also called ‘Korean Sons of Heaven (Haedong ch' ŏnja 海東天子).’ If Chosŏn kings did not execute virtuous rule but made the populace suffer, heaven would punish everyone with various disasters. For example, when there were fires and epidemic outbreaks in 1698, people blamed them both on heaven’s displeasure at King Sukjong’s poor rulership, saying that he was not caring about the people but imposing excessive corvée labour.⁹⁹ Therefore, it was common sense that epidemic outbreaks were a punishment from heaven, and so kings were also sensitive to these politically charged criticisms and would immediately respond to relieve people.

For any kind of disaster, relief policies were based on the Confucian philosophy that it was the responsibility of the ruling class to save lives.¹⁰⁰ Confronted with the simultaneous outbursts of famine and epidemics in 1697, the government tended to concentrate more on feeding people, which was probably the only possible approach to saving health in their view as there were no effective measures against epidemics. A Chosŏn minister argued that ‘to save the poor who had no means of support is a priority for the king’s policy, either by giving them dry food, or by establishing relief pots on the island as was done in the previous year, or by limiting relief before the harvest to save for urgent occasions.’ King Sukjong also expressed his concerns for the displaced beggars in the capital.¹⁰¹ He saved leftovers from his daily meal and granted royal rice to the people on Yuldo island to supplement their hunger. Certainly, this amount of food was far from sufficient, but he expressed his concern by stating that ‘people’s hunger is

⁹⁹ *Sukjong sillok* 32:26A (1698.11.23). 人君苟飾宮室，不恤民力，天必降火災。近日兩宮修理，勢不可已，而第四年凶荒之餘，癘疫又熾，財力匱竭。此時動役，實屬非時。往事今不必言，而自今宜克自儉約，務從節損，毋為不急之役

¹⁰⁰ See also Guo Qiyong et al., ‘The Values of Confucian Benevolence and the Universality of the Confucian Way of Extending Love’, *Frontiers of Philosophy in China* 7, no. 1 (2012): 20–54. For studies on the discourse of benevolent government in early modern Japan, see also Maren A. Ehlers, *Give and Take: Poverty and the Status Order in Early Modern Japan* (Cambridge, Massachusetts and London: Harvard University Asia Center, 2018), 26-29.

¹⁰¹ *Sŭngjŏngwŏn ilgi* 377 Sukjong24 (1698.2.16). 尹趾善曰，都下流丐遍滿，母子兄弟，扶携呼哭於路上，仍為餓斃，埋葬城外，極為慙惻。夫救活無告之窮民，王政之所必先，或俵給乾糧，或依上年例設賑於栗島，限麥前賑救，則庶救一分之急，問議於賑廳，從長區劃，何如？上曰，都城內流丐之類，頃者各別軫念，特下備忘矣。大臣所達又如此，與賑廳相議救濟之道，更為稟處，可也。

like my hunger.’¹⁰² These records suggest a concern by the dominant class towards the lives of unfortunates, although we know that the concern was also a matter related to the stability of society and the rule of the dominant class. Quarantining infected and displaced people in a certain place with food was a measure to stabilize society and to place people under state control.

Though the establishment of central medical institutes and quarantine spaces also aimed to save lives, the practice of quarantine lacked medical measures, because the infected people were not offered medicines and physician visits. Nevertheless, among the central medical institutes, Hwarinsŏ played an important role in the epidemic years in the seventeenth century. For example, when infectious diseases struck the entire peninsula in the 1610s, Hwarinsŏ in the eastern and western suburbs accepted infected patients and even expanded their quarantine space by erecting tents. Accompanying quarantine, the royal court also ordered physicians to compile epidemic prescriptions and allot medicines and dispatch doctors to treat illness.¹⁰³ Attempts to offer medical treatments were curtailed by a lack of medical resources though quarantine required triage and rationing.

In short, it was not that there were no medical measures taken.¹⁰⁴ It was that compared to these medical measures, both the expulsion to tents and the isolation on islands only resulted in completing isolation and kept the ill away, while denying them further medical care. It was also highly possible that a conservative prejudice and class discrimination existed and these people were labelled as social threats, which drove officials to send them to the island and tents. Hence the spaces that were arranged against outbreaks, the tents or the island with supplies of rice provisions, functioned as relief houses or asylums but not as pesthouses where medical treatments were conducted.

¹⁰² *Sŭngjŏngwŏn ilgi* 371. Sukjong23. (1697.4.22). 當壬辰兵亂之後, 值癸·甲兩年之凶荒, 除出御供, 以賑飢民, 此實祖宗朝恤民之盛德也, 豈非今日之可法者乎? 其令該曹, 御供米參酌除出, 以補粟島饋飢民之資, 非以此升斗之米, 謂有普濟之效? 欲示予猶已飢之意也。

¹⁰³ *Kwanghae-gun ilgi* 21:109A (1612.12.19); *Kwanghae-gun ilgi* 21:117A (1612.12.22).

¹⁰⁴ *Sŭngjŏngwŏn ilgi* 389. Sukjong23. (1700.1.15). 自戶曹每年例送臘藥債下地木三同·玄木一同四疋內, 戊午年減半, 乙亥年又減三分之一, 煎藥玄木三十疋, 戊午年全減, 惠民署進排藥材等物, 各減其半, 藥房二員內, 亦減一員,

Comparative studies on quarantine and public health

Continuing from my argument that epidemic management was seen as a form of disaster relief rather than medical relief, in this section, I explore the questions of whether the quarantine measures of seventeenth-century Chosŏn may be considered a form of public health. I do so through a comparison with the household quarantine and publicly operated pesthouses used to isolate both infected and exposed people in seventeenth-century England while the European quarantine practice showed early-modern concepts of medical care. I argue that because quarantining infected people and isolating displaced people on islands only served as a relief policy with limited medical care, there was no concept of public health when it came to epidemics in seventeenth-century Chosŏn Korea. Meanwhile, through further comparisons with Chinese quarantine measures, I notice the intermittent and uncoordinated application of quarantine in East Asia under the influence of Confucian statecraft.

Scholars have often praised measures against plagues as inaugurating early public health in Europe. The first quarantine ordinance and establishment of a Health Office were the initial trials in Italy in the late fourteenth century.¹⁰⁵ Most other European countries, such as Britain and France, developed their health boards in the late sixteenth century.¹⁰⁶ Quarantine and poor relief took effect in the medical and financial relief of the quarantined during the plague in seventeenth-century England. For example, the 1636 outbreak that struck London and Westminster provoked the usual government responses to epidemics, so the national government quickly issued a series of proclamations that continued to function throughout the seventeenth century against continuous plague outbreaks. These measures included but were not limited to republishing books of orders for controlling outbreaks, assembling physicians, nurses, and surgeons to care for the sick, hiring bearers to transport the dead and dying, regulating the architectural specifications for pesthouses, arranging doorkeepers to

¹⁰⁵ See also Crawshaw, *Plague Hospitals: Public Health for the City in Early Modern Venice*.

¹⁰⁶ Tomić and Blažina, *Expelling the Plague*, 114.

check the quarantine, and distributing poor relief independently.¹⁰⁷ In addition, the government thought about the economic hardship of quarantine. The quarantined poor, who were fully or partially charged, could gain relief in the form of loans from parishes. Based on *The English Old Poor Law*, a nationwide tax founded poor relief policy, and each parish redistributed the cash from taxation to the needy poor, like those quarantined, infected, and sick.¹⁰⁸ Such law-based poor relief took a significant part in the recovery from the plague in England.

However, rules setting up quarantines appeared to stop and be forgotten until a need arose again. Therefore, previous studies on the existence of public health in early modern Europe have been challenged by Lindemann's argument that no precise idea of public health existed at that time and the governmentally administered health framework really only evolved in the mid-to-late eighteenth century. Instead, she suggests referring to 'the health of the people' to include a miscellany of early modern efforts to deal with diseases and health problems.¹⁰⁹

Likewise, early attempts to provide food, clean prisons, medicine, and to dispatch doctors began much earlier and can be traced to antiquity in Korean history. Yet, modern public health initiatives only took off when modern medicine and concepts such as hygiene were introduced near the close of the eighteenth century.¹¹⁰ Therefore, instead of considering those early attempts as the origin of public health, Europe and Korea showed some similarities in the sporadic development of public health.

The seventeenth-century saw responsibilities for medical care were partially shifted to private hands and local administration, because of the few functional central medical measures for epidemics. As noted in the two great famines, although the

¹⁰⁷ Newman, 'Shutt Up', 810-22.

¹⁰⁸ Newman, 'Shutt Up', 818; Jonathan Healey, 'Coping with Risk in the Seventeenth Century: The First Age of the English Old Poor Law: A Regional Study', in *Public Goods Provision in the Early Modern Economy*, ed. Masayuki Tanimoto and R. Bin Wong, 1st ed., Comparative Perspectives from Japan, China, and Europe (University of California Press, 2019), 114.

¹⁰⁹ Mary Lindemann, 'Disease and Medicine', in *The Oxford Handbook of Early Modern European History, 1350-1750* (Oxford University Press, 2015), 112-3. See also Lindemann, *Medicine and Society in Early Modern Europe*.

¹¹⁰ See Shin 신, *Han 'guk kũndae pogõn ũryosa 한국근대보건의료사*, 1997. In the case of Japan, Ehlers also argues that only in the final years of the Tokugawa regime did authorities begin to significantly expand public health and thus moved the parameters of benevolent rule closer to the modern concept of social welfare. See Maren A. Ehlers, *Give and Take: Poverty and the Status Order in Early Modern Japan* (Cambridge, Massachusetts and London: Harvard University Asia Center, 2018), 26-27, 252.

government still provided space for patients at Hwarinsŏ, dispatched doctors, and allotted medicine, accessible medical resources and financial support could not meet the increasing needs of the populace and the absence of strong official interventions could not enforce these central policies at the grassroots. Against such a background in the second half of the seventeenth century, medical treatment towards the epidemics became more localized where private hands gradually engaged in medical care.¹¹¹ Through a case study of a pharmacy at Kangnŭng from 1603 to 1842, Shin Dongwon argues there were some changes in medical roles from central officials to local elites, and later to the market.¹¹² The early process of this transformation can also be confirmed in the late seventeenth century as privately owned tents sprang up to supplement the shortage of publicly arranged tents for quarantine. While private individuals or groups cooperated with local administrations to relieve people from famines and epidemics, it was doctors and pharmacists in villages who helped to treat the people directly. Housing registers, for example, in Taegu and Tansŏng from the early to the late seventeenth century witnessed an increase in the number of doctors and pharmacists, which further indicates the prosperity that must have been available through pharmacies and medical care in local areas.¹¹³

When we compare the social classes being quarantined with those being treated at home and in central medical institutes, we can see the social injustice in the late Chosŏn dynasty. The English government asserted that plague control measures were aimed at the health of all and tried to act as fairly and equally as possible.¹¹⁴ In practice,

¹¹¹ Ha Myŏng-jun 하명준, ‘Yŏngjodaek Hwarinsŏ e taehan insik kwa unyŏng silt’ae 영조대 活人署에 대한 인식과 운영 실태’, *Yŏksa munhwa yŏn’gu* 역사문화연구 79 (2021): 167–98. The state-designated medical institutions declined around the sixteenth century while the roles of marketplace and the urban pharmacies spurred in China’s early modern medical scene. For relevant Chinese studies, see He Bian, ‘The Marketplace and the Shop’, in *Know Your Remedies: Pharmacy and Culture in Early Modern China* (Princeton and Oxford: Princeton University Press, 2020), 126–52.

¹¹² Shin Dongwon 신동원, ‘Chosŏn sidae chibang ūiryŏ ūi sŏngjang: kwan chudo esŏ sajok chudo ro, sajok chudo esŏ sijang chudo ro -Kangnŭng yakkye (1603-1842) ūi chojik kwa haeso rŭl chungsim ūro 조선시대 지방의료의 성장: 관 주도에서 사족 주도로, 사족 주도에서 시장 주도로 -강릉 약계(1603-1842)의 조직과 해소를 중심으로’, *Han’guksa yŏn’gu* 한국사연구, no. 134 (2006): 1–29; Kerry Seiji Shannon, ‘Cleanliness and Civilization: Public Health and the Making of Modern Japan and Korea, 1868-1910’ (UC Berkeley, 2019).

¹¹³ *17-18 segi Tansŏng-hyŏn hojŏk taejang* (17-18 世紀丹城縣戶籍大帳) [Household registers for Tansŏng during the 17-18th centuries], accessed October 1st, 2020, Daedong Institute for Korean Studies at Sungkyunkwan University. <https://skb.skku.edu/ddmh/db/list01.do>

¹¹⁴ Newman, ‘Shutt Up’, 822.

the rich bribed the doorkeepers and used their privilege to flee to safer places, while the lower middling people suffered the most.¹¹⁵ Spatialization is one useful tool to examine social injustice in the distribution of quarantine space for the infected rich and the displaced poor.¹¹⁶ The classification of different spaces for different social classes exposes the stratification of social classes in pre-modern Korea. Comparison with the administration of the central medical institutes make this clear. The elite could enjoy central medical resources; commoners were expelled to the suburbs of the capital, and displaced people were isolated on islands. Regardless of the claim of loving the populace or protecting the public health for all, the implementation of quarantine policy contradicts any egalitarian vision. In addition, the spatial changes for quarantine from the capital to the suburbs and an island also highlight a shift of the epidemic rescue responsibility towards a government gradually sharing relief burdens with local administrations and private forces in the suburbs and rural areas. The shift is exemplified by the expulsion to tents organized by private owners and some displaced people on Yuldo island being adopted by residents. To sum up, the practice of quarantine conducted in seventeenth-century Chosŏn society relieved the infected and displaced people to a certain degree but was limited in promoting medical care.

Features of pre-modern Korean quarantine are more evident through an East Asian comparison. Although information on quarantine in China is yet sparse, the following provides a brief history of Chinese quarantine practices, which show that similarities in the sporadic development of quarantine are obvious. The idea of quarantine, or separating infected people into another space could date back to the Qin dynasty (221 to 206 BC) when leprosy patients were moved to a special place for epidemics (癘所 *C. lisuo*) according to a record written on bamboo slips. The Han dynasty (漢, 202BC-220AD) adopted this measure to keep the infected in empty houses with medical supplies.¹¹⁷ There were more restrictions during the Jin Dynasty (266-

¹¹⁵ Newman, 'Shutt Up', 810.

¹¹⁶ See also David J. Bodenhamer, John Corrigan, and Trevor M. Harris, eds., *The Spatial Humanities: GIS and the Future of Humanities Scholarship*, Illustrated edition (Bloomington: Indiana University Press, 2010); Ivan Franch-Pardo et al., 'Spatial Analysis and GIS in the Study of COVID-19. A Review', *Science of The Total Environment* 739 (October 2020): 140033.

¹¹⁷ *Hanshu* 漢書 Vol. 12. 民疾疫者，舍空邸第，為置醫藥。See also Yang Yinquan 楊銀权, 'Bei hushi de chuantong: Zhongguo gudai geli zhiyi fazhan shulun 被忽视的传统：中国古代隔离治疫发展述论', *Baoji wenli*

420), which state that those who had been in contact with infected people, despite not showing symptoms, were not allowed to enter the royal palace.¹¹⁸ The central medical institutes established in the following dynasties temporarily played the role of pesthouses in times of severe outbreaks to quarantine and treat infected patients. There was also a House for recuperating from illness (養病坊 C. *yangbingfang*) in the Tang dynasty, an Institute for wide benevolence (廣惠司 C. *guanghuisi*) in the Yuan empire, and a Pharmacy for the populace (惠民藥局 C. *huimin yaoju*) in the Ming dynasty.¹¹⁹ In the seventeenth century, the Manchus especially established quarantine shelters for keeping smallpox at bay (避痘所 C. *bidousuo*). The ideas and practice of quarantine in ancient China kept developing and the names of medical institutes convey their purposes in treating patients and providing relief. The central Chinese state in the sixteenth century and afterwards, nonetheless, neglected quarantine for other types of infectious diseases with no more than ad hoc distribution of money or medicine, while private social forces started to take the lead to operate medical care against outbreaks such that private philanthropists gradually institutionalized their charities.¹²⁰

There was no centralized state in Japan until the late eighteenth century, and during the seventeenth century, different feudal domains (*han* 藩) varied their quarantine measures against contagious diseases, so we cannot include a discussion on quarantine in pre-modern Japan, because the complexity is too great.¹²¹ However, comparing pre-modern China and Korea still helps us to discover that the development of medical care was a sporadic process in which multiple participants gradually collaborated.

Early attempts at quarantine in England are framed as a political proclamation of public health both in historical documents and in modern historiography, leaving us

xueyuan xuebao (shehui kexueban) 宝鸡文理学院学报 (社会科学版), 2017, 75–77.

¹¹⁸ ‘Wang Biao zhi zhuan 王彪之傳[Biography of Wang Biao]’, in *Jinshu* 晉書. 永和末, 多疾疫。舊製, 朝臣家有時疾, 染易三人以上者, 身雖無病, 百日不得入宮。

¹¹⁹ Yang 杨, ‘Beihushi de chuantong 被忽视的传统’, 2017, 77–79.

¹²⁰ Angela Ki-che Leung, ‘Organized Medicine in Ming-Qing China: State and Private Medical Institutions in the Lower Yangzi Region’, *Late Imperial China* 8, no. 1 (1987): 155.

¹²¹ Regarding modern history of Japanese quarantine, see also Kanekawa Hideo 金川英雄, *Kansenshō to kakuri no shakaishi: Hibyōin no Nihon kindai o yomu* 感染症と隔離の社會史 避病院の日本近代を読む (Tōkyō: Seikyusha, 2020).

with the question of the intermittent application of quarantine in East Asia. I attribute the provisional occurrence—the invention and abandonment of the quarantine of infected people and the isolation of displaced people—as intertwined with East Asian Confucian statecraft.¹²² Ideologically speaking, compassion and benevolence (仁愛) guided and required the government to render its people relief and medical care.¹²³ Quarantine spaces were built for these purposes, even though numerous deaths in these spaces could not achieve the stated aims. But, there was an ideological problem. Exiling infected people to tents, as a pre-modern form of quarantine, also meant that family members who had to be sent away to quarantine disobeyed the moral rightness (恩義) and filial piety (孝) held to be the core of a good society, as claimed by the Cheng-Zhu School (朱子學), the main trend of Korean Confucianism.¹²⁴ The contradiction between public health and personal morality also explains why Confucian scholars criticized quarantine and why the central Chosŏn government could not legitimize it. For example, Park Sech'ae (朴世采 1631-1695) raised ideological concerns about righteous funerals and ancestor worship in times of epidemics and smallpox outbreaks.¹²⁵ In the early eighteenth century, the Confucian scholar Yun Chŭng suggested alternative policies for family members when infected people were exiled to the suburban tents.¹²⁶

¹²² Japanese Confucian scholars during the Edo period could not enjoy a superior social status but they communicated closely with the Japanese doctors. Kim Sŏngsu 김성수, 'Chosŏn hugi, ūihak kwa sirhak ūi kwan'gye e taehan chaego: 18 segi chŏnban kkaji rŭl chungsim ūro 조선후기, 의학과 실학의 관계에 대한 재고: 18 세기 전반기까지를 중심으로', *Ūryo sahoesa yŏn'gu* 의료사회사연구 2 (2018): 13; 服部敏良 Hattori Toshirō, 江戸時代醫學史の研究 *Edo jidai igakushi no kenkyū* (Tōkyō: Yoshikawa Kōbunkan, 1978), 44–54.

¹²³ For a modern context, see Wang Cheng 旺程, 'Ruxue de yiliao yu yiliao de ruxue -ruxue shengming jiaohualun de yige xinweidu 儒学的医疗与医疗的儒学-儒学生命教化论的一个新维度', *Shehui kexue zhanxian* 社会科学战线, 2021.12, 10–17.

¹²⁴ Chae-ŏn Kang and Jae-eun Kang, *The Land of Scholars: Two Thousand Years of Korean Confucianism* (Homa & Sekey Books, 2006), 143.

¹²⁵ Pak Sech'ae. *Namgye sŏnsaeng Pak Munsun-gong munjongjip* 南溪先生朴文純公文正集, vol. 55, collected in *Han'guk munjip ch'onggan* vol. 138-142, 1732. Sangjejik yŏkdusŏl 喪祭值疫痘說 [Essays on funeral and ancestor worship in times of epidemics and smallpox] 1690.12. ...然今以朱夫子及我朝三先生之說觀之。如朱子所謂告之以恩義。則彼之不避者知恩義之爲重而不忍避者。誠人道之至訓。斯可以爲天下士庶之法矣。至如退溪所謂避者未必皆生。然而避者生之道云者。亦處變不得已之論。恐難一向攻斥也。

¹²⁶ Yun Chŭng. *Myŏngjae yugo* [明齋遺稿 Bequeathed draft of Myŏngjae], vol.28, 1732, collected in *Han'guk munjip ch'onggan* vol. 135-136. Yŏja haengkyo [Teachings to sons]. 聞青陽守邑內之以病出幕者。皆令遷入曰。民一也爲生者。而使病者。徑致凍死不忍也云。此實古人之政也。比來病者之多死。蓋由於出幕。須申飭之。必令病幕完固。且令安堦如酒幕。且令其家人同出救護。俾無凍死之患可矣。此亦政也。不可忽也。牧民心鑑一冊。極好看。極有要語。故送去。精謄而常覽可也。

In comparison, pre-modern Korean quarantine measures included social efforts to promote the wellbeing of people in need, which was different from the European examples above because the Korean case was not regulated by statute at a nationwide level. As noted earlier, the purpose of the Korean measures was to address infectious diseases, based on Confucian philosophy, and the implementation of such measures depended on local elites and bureaucrats, rather than being completely regulated by the central court. The private and local tents for quarantine are one such example of these localized, social efforts. A series of emergent responses to epidemics, and the absence of a systematic administrative approach, exposes the underlying unsystematic management of national disasters and medical crises in seventeenth-century Chosŏn Korea. The tentative implementation of quarantine only became more systematic in the late eighteenth century.¹²⁷

Conclusions

Objectively, quarantine in suburbs and on islands served a medical function by isolating infected people; however, this was almost incidental to the main purpose of maintaining social order and ‘loving the people’ through disaster relief. The measures taken in tandem with quarantine, such as food relief and child adoption, indicate that the two types of quarantine discussed here had more in common with a political mechanism than medical welfare. A comparison with quarantine in China further shows similarities in the sporadic development of quarantine and medical care, in which multiple participants gradually collaborated. By comparing the Korean case with compulsory quarantine proclamations in Europe based on laws of poor relief and ‘the health of the people’, this study finds that the implementation of quarantine in the late Chosŏn dynasty lacked systematic enforcement and was based more on Confucian concepts of relief.

Yet, in the two waves of the great famines in the second half of the seventeenth century, there was a miscellany of pre-modern efforts to deal with infectious disease and

¹²⁷ Kim Ho 김호, ‘Ch’ŏngjodae ūi pangyŏk: anjŏn kwa hohye ūi mosaek 정조대의 방역: 안전과 호혜의 모색’, *Covid19 wa ilsang ūi pyŏnhwa* 코로나 19 와 일상의 변화, 2021, 65–90.

health in Chosŏn society, such as food provision, medicine distribution, expulsion to tents, and isolation on islands. Rather than considering these attempts as the origins of a well-articulated public health or medical welfare initiative, it makes more sense to view them as sporadic, even sometimes contradictory measures, marked by a focus on relief, short quarantine times, early release, and multiple participants.

Chapter 6 Smallpox Panic: Managing Diseases and Sino-Chosŏn Relations

Diplomatic rituals have witnessed many challenges during the COVID-19 pandemic. One noteworthy change is that leaders do not shake hands but instead bump arms in order to prevent the transmission of disease. Public health considerations have thus driven changes in diplomatic behaviour and ritual safety, and these changes in the manner of official greetings have not caused diplomatic offence. Historically, rituals between the Qing empire and the Chosŏn kingdom symbolically demonstrated Qing's suzerainty over its vassal state and any change was likely to be considered as a transgression of the established order, or even a sign of rebellion. Thus, the existing scholarship on changes to Sino-Korean diplomatic ritual considers such changes within the framework of politics and foreign relations, but rarely considers the impacts of other, unexpected environmental factors such as infectious diseases. In fact, on occasion, Chosŏn did request changes to their ritual obligations due to kings' illnesses and epidemic infections. These have been seen both by the Qing emperor Kangxi (康熙 1654-1722) and modern scholars as excuses showing Chosŏn's reluctance to send tribute to the Qing empire.¹

While I concur with the studies that emphasize the political ramifications of change, by viewing the impacts of smallpox on pre-modern Korean domestic politics and foreign ritual changes, in this chapter I argue that the Chosŏn government was genuinely concerned about the health of its kings and princes. Chosŏn endeavoured to ensure both the ritual safety of its representatives and to minimize possible impacts on relations with the Qing empire. To this end, for example, the Chosŏn government, during the reign of King Hyojong (孝宗 r. 1649-1659), treated the smallpox-infected Qing envoy and put in place substitute reception activities when the sick Chosŏn king, Sukjong (肅宗 r. 1674-1720) could not attend certain ceremonies.

The History of Smallpox

Existing scholarship on epidemics in world history has done much to advance the history of smallpox, in particular, smallpox eradication by inoculation and

¹ Li Huazi 李花子, 'Qingdai Chaoxian de jiaochili -yi guowang jiaoying wei zhongxin 清代朝鲜的迎敕礼-以国王郊迎为中心', *Ouya xuekan* 欧亚学刊 8 (2006): 277-86.

vaccination as understood from the perspectives of the history of medicine and science.² To add to the European historical discourse, scholars have shifted focus to European colonies, such as India and Mexico, mainly discussing the origins of smallpox in new lands from the perspective of environmental studies and in relation to imperial campaigns against smallpox within the colonization context.³ Studies on the history of smallpox are thus gradually covering the global picture of this disease, although the East Asian region still lacks attention in English scholarship.⁴

In Korean scholarship, smallpox has been mainly discussed from the perspective of the history of medicine, considering topics such as medical texts regarding smallpox treatment, the health of Chosŏn kings, and the history of smallpox vaccination from variolation to cowpox vaccination.⁵ Chosŏn literature, such as folk tales, gives the impression that smallpox was perceived to be caused by the god of smallpox before these ideas were displaced by the introduction of modern science and religion, and so studies have looked at shamanistic customs for smallpox as well as the literary and religious aspects of smallpox during the Chosŏn dynasty.⁶

Meanwhile, there is a new trend to consider the impacts of smallpox outbreaks on wars, politics, and diplomacy. For example, several studies have discussed the fear of smallpox in the Qing empire, which became a significant factor in its policies and even military plans for a possible retreat during the Manchu invasions of Chosŏn.⁷ Kim

² Romola Davenport, Leonard Schwarz, and Jeremy Boulton, 'The Decline of Adult Smallpox in Eighteenth-Century London', *The Economic History Review* 64, no. 4 (2011): 1289–1314; Amelie M Kass, 'Boston's Historic Smallpox Epidemic', *Massachusetts Historical Review* 14 (2012): 1–51.

³ Francis J. Brooks, 'Revising the Conquest of Mexico: Smallpox, Sources, and Populations', *The Journal of Interdisciplinary History* 24, no. 1 (1993): 1–29; Bob H. Reinhardt, 'Smallpox Denaturalized, Demonized, and Eradicable', *Environmental History* 20, no. 4 (2015): 700–709; Lydia Murdoch, 'Carrying the Pox: The Use of Children and Ideals of Childhood in Early British and Imperial Campaigns Against Smallpox', *Journal of Social History* 48, no. 3 (3 January 2015): 511–35.

⁴ Chia-Feng Chang, 'Disease and Its Impact on Politics, Diplomacy, and the Military: The Case of Smallpox and the Manchus (1613-1795)', *Journal of the History of Medicine and Allied Sciences* 57, no. 2 (April 2002): 177–97.

⁵ Oh Chaekun 오재근, 'Chosŏn ūigwan Hŏ Chun ūi tuch'ang ūihak kwa p'yŏnjŭng 조선 의관 허준의 두창 의학과 "변증"', *Ūisahak* 의사학 30, no. 1 (2021): 35–68; Shin Dongwon 신동원, *Chosŏn saramŭi saengno byŏngsa* 조선사람의 생로병사(Seoul: Han'gyŏre sinmunsa 한겨레신문사, 1999); Ho Kim 김호, 'Chosŏn sidae Injo ūi chilbyŏng e kwanhan koch'al 朝鮮時代 仁祖의 疾病에 관한 考察', *Han'guk ūisahak hoeji* 한국의사학회지 18, no. 2 (2005): 15–37; Kim Ho 김호, 'Chosŏn sidae Hyojong ūi chilbyŏng mit sain e kwanhan koch'al 조선시대 효종의 질병 및 사인에 관한 고찰', *Han'guk ūisahakhoeji* 한국의사학회지 17, no. 2 (2004): 129–44; Chung Seungho 정승호 and Kim Sujin 김수진, 'Ūmsigi Chosŏnwangdŭl ūi chilbyŏng kwa samang e mich'in yŏnghyang e kwanhan yŏn'gu (Chosŏn chunggi: Chosŏn che 10 tae Yŏnsan'gun-Chosŏn che 18 tae Hyŏnjong) 음식이 조선왕들의 질병과 사망에 미친 영향에 관한 연구(조선중기: 조선 제 10 대 연산군-조선 제 18 대 현종)', *Han'guk hoesik sanŏp hakhoeji* 한국의식산업학회지 17, no. 2 (2021): 179–200.

⁶ Lee Sun-a 이선아, 'Han Mong minsok esŏe tuch'ang yŏksin e taehan insik pigyo 한몽 민속에서의 두창(痘瘡) 역신(疫神)에 대한 인식 비교', *Han'guk minsok hakhoe* 한국민속학회 61 (2015): 87–112.

⁷ Koo Bomjin 구범진, 'P'yŏngja horangwa ch'ŏnyŏndu 병자호란과 천연두', *Minjok munhwa yŏn'gu* 민족문화연구 72 (2016.8): 9–57; Chang, 'Disease and Its Impact on Politics, Diplomacy, and the Military'.

Changsu also provides new insight on the potential impacts of smallpox and King Sukjong's health problems on Sino-Chosŏn relations by examining the conflicts surrounding the diplomatic ritual of welcoming Qing envoys outside Hansŏng city walls (郊迎禮 *kyoyŏngnye*) during the early period of King Sukjong's reign.⁸

By taking an integrative approach to the history of smallpox and Sino-Chosŏn relations, this chapter critically examines the analytical frames through which these two histories have traditionally been examined: foreign relations and the history of medicine. Based on quantitative data and detailed eyewitness accounts of smallpox, this chapter first aims to write a brief history of smallpox in Chosŏn Korea, including not only the chaos it brought to society but also how smallpox infections prompted the Chosŏn government to take certain administrative measures from the seventeenth to the early eighteenth century. I then concentrate on the potential impacts of smallpox on the diplomatic relations between Chosŏn Korea and the Qing empire, arguing that the Chosŏn government endeavoured to manage the smallpox infection and foreign relations simultaneously.

A brief history of smallpox in the seventeenth-century Chosŏn Korea

Smallpox is referred to using various Chinese characters in the Korean primary sources: *tuch'ang* 痘瘡, *ch'ŏnyŏndu* 天然痘, *tujin* 痘疹, *tuyŏk* 痘疫, *tuban* 痘癩, and *mama*, which is a Manchurian term. A term for macule and papule (*panjin* 癩疹), what we might consider nowadays to be measles, was also used together with smallpox in *Previous Mirror of Eastern Medicine* (東醫寶鑑 *Tongŭi pogam*, 1610). Since there was no clear demarcation between the two, *ch'angjin* 瘡疹 or *majin* 麻疹 sometimes could also refer to smallpox in seventeenth-century texts.⁹ Smallpox has a relatively long history on the Korean peninsula and certainly throughout the entire Chosŏn dynasty, starting with an early record in 1418 when monarch Sŏngnyŏng-taegun (誠寧大君 1405-1418) died of smallpox at the age of 14.¹⁰ Its impacts also lasted for decades even

⁸ Kim Changsu 김창수, 'Chosŏn hugi Chosŏn-Ch'ŏng Q'ŏng kwan'gye wa kukwang ūi kŏn'gang munje -Sukjong ch'oban kyoyŏngnye rŭl tullŏssan kaldŭngŭl chungsim ūro 조선후기 조선·청 관계와 국왕의 건강 문제 -속종 초반 교영례(郊迎禮)를 둘러싼 갈등을 중심으로-', *Ŭisahak* 의사학 29, no. 3 (2020.12): 999-1028.

⁹ *Previous Mirror of Eastern Medicine* (Tongŭi pogam 東醫寶鑑, 1610) vol.11 Miscealeneous 雜病篇, Children 小兒, 痘癩疹三證, 專由胎毒 Smallpox, Macula and Eruption Are Mostly from Fatal Toxin; Miki Sakae 三木, *Chōsen ihakushi oyobi shippeishi* 朝鮮醫學史及疾病史, 228.

¹⁰ Kim Seungsu 김성수, 'Chosŏn chŏngi Tuch'ang yuhaeng kwa ch'angjinjip 조선전기 두창 유행과 창진집', *Han'guk hanŭihak yŏn'guwŏn nonmunjip* 한국한의학연구원논문집 16, no. 1 (2010): 29-41.

after the introduction of vaccination in the late nineteenth century and an anti-smallpox policy under the Japanese colonization (Table 9).¹¹

Table 9. Number of smallpox related reports in different sources

Chosŏn kings	<i>sillok</i> volumes	Other revised and supplementary versions of <i>Sillok</i>	<i>Sŭngjŏngwŏn ilgi</i>	<i>Pibyŏnsa tŭngnok</i>	Diary Database
Sŏnjo (宣祖), r. 1567-1608	6	<i>Sŏnjo kaesu</i> : 2			15
Kwanghae-gun (光海君), r. 1608-1623	8	<i>Kwanghae-gun chŏngch'obon</i> : 7			35
Injo (仁祖), r. 1623-1649	7		19	3	37
Hyojong (孝宗), r. 1649-1659	5		68	2	3
Hyŏnjong (顯宗), r. 1659-1674	18	<i>Hyŏnjong kaesu</i> : 20	41	2	0
Sukjong (肅宗), r. 1674-1720	79	1	173	10	65
Kyŏngjong (景祖), r. 1720-1724	2		610	2	6
Yŏngjo (英祖), r. 1724-1776	40		42	-	482
Chŏngjo (正祖), r. 1776-1800	8		132	2	34
Sunjo (純祖), r. 1800-1834	12	1	37	-	40
Hŏnjong (憲宗), r. 1834-1849	4		230	-	12
Kojong (高祖), r. 1863-1907	44		5	6	21

Although the length of each reign naturally affects the total number of smallpox-related records we observe for that reign, table 9 still suggests the long-lasting impacts of

¹¹ Kim Tujong 김두중, 'Uri naraŭi tuch'ang ŭi yuhaeng kwa chongdubŏp ŭi silhaeng 우리나라의 痘瘡의 流行과 種痘法의 實施', *Seoul University Journal* 서울대학교 논문집 4 (1956): 31-76; Park Yunjae 박윤재, 'Chosŏn ch'ongdokpu ŭi udu chŏngch'ae kwa tuch'ang ŭi chisok 조선총독부의 우두정책과 두창의 지속', *Ŭisahak* 의사학 12, no. 3 (2012): 377-401; Kerry Seiji Shannon, 'Cleanliness and Civilization: Public Health and the Making of Modern Japan and Korea, 1868-1910' (UC Berkeley, 2019).

smallpox on the Korean peninsula and shows that no period was free from smallpox infection. The most acute outbreaks occurred during Sukjong's reign in the seventeenth century and Yǒngjo (1724-1776)'s reign in the eighteenth century.

According to the records in Table 9, the prevalence of smallpox gradually increased in the late sixteenth and early seventeenth centuries when Chosŏn Korea had more interactions with foreigners: Ming Chinese, Japanese and Jurchen tribes via tribute, trade, and wars, such as the Imjin War and the Manchu invasions of 1627 and 1636. After the Imjin War, pockmarks on the face became one important category included in military rosters.¹² These records about whether enlisted individuals had pockmarks or not probably indicated the government was aware of the 'immunity' gained from pox-induced infection, as those who had contracted smallpox could not be infected again and were more useful in the army. It is probable that the concept of immunity was known in Chosŏn, because the Qing case (discussed below) indicates knowledge of immunity. Pockmarks were highly likely to be caused by smallpox given the fact that smallpox was endemic at least from the seventeenth century, although we could not rule out other possibilities such as measles or chickenpox, which can also leave scarring if scratched. As noted before, measles and smallpox were not well distinguished at that time. Four military rosters that have survived from the seventeenth to the mid-eighteenth century note pockmarks as a facial feature (Table 10).¹³

¹² James Lewis, Jun Seongho, and Daniel Schwekendiek, 'Toward an Anthropometric History of Chosŏn Dynasty Korea, Sixteenth to Eighteenth Century', *The Journal of the Historical Society* 13 (1 September 2013); Koo Bumjin 구범진, *P'yŏngja horan, Hong Taiji ūi chŏnjaeng* 병자호란, 홍타이지의 전쟁 (Seoul: Kkach'i 까치, 2019), 267.

¹³ For further discussion of the rosters and their use to indicate general health in the population, see James Lewis, Jun Seongho, and Daniel Schwekendiek, 'Toward an Anthropometric History of Chosŏn Dynasty Korea, Sixteenth to Eighteenth Century', *The Journal of the Historical Society* 13 (1 September 2013): 241-244. The years of the military rosters labeled 1596, 1685, and 1728 were the years of recording. Each individual record in the military roster for the year 1697 was recorded in a different year prior to the year on the cover, and all information was brought together in one volume in the year 1697, as written on the cover. All the textual records were translated into graphs for further statistical analysis. Chŏng, Ku-bok (鄭求福). '1596 P'yŏng'an-do Chingwan Kwanbyŏng p'yŏno-cha'ek (1596 年平安道 鎭管官兵編伍冊); *Komunso yŏn'gu* (古文書研究) 5 (1994.5): 99-125, 127-174; Cheju sogo kunjŏkbu (濟洲東伍軍籍簿) 1685. Available as T'amna Munwha ch'ongsŏ (耽羅文化叢書)16, *Cheju sogo kunjŏkbu* (濟洲東伍軍籍簿). Cheju: Cheju taehakkyo, T'amna Munwha Yŏn'guso (濟洲大學 耽羅研究所), 2001; *Sukjong-dae Ch'ung ch'ŏng-do sogo kunjŏk* 肅宗代 忠淸道 東伍軍籍 1697. Kyŏnggi-do: T'oji chut'aek pangmulgwan 土地住宅博物館; Kim, Sŏng-kap 김성갑. 'Sukjong dae Ch'ungch'ŏng-do sog'o kunjŏk sogae 肅宗代 忠淸道 東伍軍籍 소개,' *Munhon kwa haesŏk* 문헌과 해석 41(2007): 199-210.

Table 10. Pockmark rate among military recruits

Year of Published Reports	Place of Measurement	Recorded Pockmark Sample Size	Valid Record Number	Age Range in Years	Percentage
1596	P'yŏngan (平安)	152	548	10 to 55	28%
1685	Cheju (濟州)	290	1437	13 to 57	20%
1697	Ch'ungch'ŏng (忠淸)	90	1504	8 to 67	6%
1728	Ch'ungch'ŏng (忠淸)	17	188	8 to 67	9%

As shown in Table 10, there were 152 men recorded as having pockmarks among 548 P'yŏngan province soldiers, consisting of 28% of the valid sample size in the military roster of 1596. The pockmark records in these military rosters all suggest smallpox outbreaks during the years before the recording years. Because the ages of recruits ranged from 10 to 55, the people who contracted smallpox before their features were recorded in the rosters could have caught the pox from a young age or in their adult years. The exact time of the infection is not recorded. Nevertheless, one fifth of the registered soldiers in 1685 reported pockmarks, which matches other documents to suggest severe smallpox outbreaks during the reign of King Sukjong (r. 1674-1720) in Table 9. The proportions of smallpox infection decreased in the other two military rosters in 1697 and 1728, which suggests a decline in the frequency of smallpox outbreaks.

The high proportion of soldiers with pockmarks in the 1596 record was likely to be a result of rampant smallpox outbreaks in the early 1590s, especially occurring in the early stage of the Imjin War. When the Japanese troops approached the capital in 1592, the Chosŏn king and court took flight to Ŭiju (義州). Chŏng T'ak (鄭琢, 1526-1605), a fourth state councillor (左贊成 *chwach'ansŏng*), accompanied them and left detailed records regarding the health of prince Kwanghae-gun. In the twelfth month of 1592, the prince stayed at Yonggang fortress, Pyŏng'an province, where the prince started to cough in the early days of the month. Three royal physicians came on the fifteenth day when the prince showed a series of symptoms such as headache, fever,

restless coughing, and weak pulse. These physicians initially attributed the sickness to a cold caused by the cold wind blowing into the warm room when the window was open. Since the prince had never had smallpox before, they also considered possibility of smallpox and treated him with prescriptions against smallpox such as a ginseng drink called *samsu-yin* 參蘇飲 and a tea called *saengmaek-ch'a* 生脈茶, which was a mixture of ginseng, lirioppe, and Chinese magnolia-vine. On the morning of the seventeenth day, pockmarks started to come out on his face and he had a fever. The symptoms lasted for the following days. The prince took some medicine administered by the three physicians, including a mysterious prescription that required him to drink the blood of a rabbit to remove the pockmarks.¹⁴ With considerate care, the prince recovered and the pockmarks faded on the twenty-fourth day in the twelfth month of 1592.¹⁵ The royal physicians could not clearly distinguish between smallpox and other similar infectious diseases such as measles, the description of symptoms also suggests the possibility of smallpox or measles.

Smallpox and the Royal Family

Throughout the Chosŏn period, the royal family witnessed numerous deaths due to smallpox outbreaks, and this explains their fear of smallpox and how it became a driving force for medical developments in the treatment of the disease. King Sŏnjo (宣祖 1567-1608)'s third son Ŭian-gun (義安君) and a daughter, and prince Kwanghae-gun's second son died of smallpox in close succession in 1603.¹⁶ In addition to Prince

¹⁴ The three prescriptions included the drinks of three kinds of beans 三豆飲, drinks of rice 陳米飲, called Shengmai tea 生脈茶. Chŏng T'ak 정탁(鄭琢). *Yongsa ilgi* 龍蛇日記. Accessed October 25th 2021, <https://diary.ugyo.net/>. 1592.12.18. 藥房問安。○是日。又封狀啓一道于行在所。○臘寒嚴沍。不審聖體安否若何。無任憂慮之至。且中東宮行次。尙留龍岡山城。而頃患欬嗽之症。未幾平復。自本月十二日。復有未寧之候。而猶未廢書筵。十四日。詮次始聞失攝。問安則以平安答之。十五日問安。請令醫官李公沂。南應命。金仲孚入診。則頭痛煩熱。欬嗽不止。六脈浮滑。蓋以前十二日夜。寢房過暖。開窓感冒。仍致此症云。且審東宮未經癩疹。證涉疑似。故與醫官等十分商議。煎 122 進參蘇飲。兼進生脈茶。十七日。早朝問安。則症候一樣云。當日巳時末。詮次聞之。面上癩疹始現。箇數不稀不密。此症例爲煩熱。故三豆飲。陳米飲。生脈茶。并煎待候。同日夕。劑進荊防敗毒散。十八日。早朝問安。則頭痛熱勢。并似稍減。額上所發。稍覺先除。大概平順。前此閭閻。大小瘡疹熾發。醫官等。告臣以稀痘兔紅丸之妙。臣言于領相。令本道縣令申倪。捉得生兔一口。令醫官李公沂。南應命。金仲孚。及臘八日取血。一依方文劑入。王世子卽依法進服云。但山城苦寒。居處疏冷。深恐有妨調攝。以此憫慮不已。詮次善啓。

¹⁵ Chŏng T'ak 鄭琢. *Yongsa ilgi* 龍蛇日記. Accessed October 25th 2021, <https://diary.ugyo.net/>. 1592.12.25. 內醫院狀啓草一道。東宮症。本月二十四日朝問安。則寢候平安。昨日進飯三匙許。生雉熟。生雁熟各小許。咳嗽大減。喉症亦歇。昨朝。進羹飯及生雉熟。生雁熟各小許。午時領議政崔興源。與臣琢。承旨柳希霖。史官李軫。及醫官李公沂南應命金仲孚入侍。候察氣色。則容顏瘳瘦。別無熱候。語音如常。癩疹消盡。無痕爲白等用良。當日行次。發向咸從爲白事。

¹⁶ *Sŏnjo sillok* 25: 1B (1591.1.4).

Kwanghae-gun, whose illness was described above, there was another prince, highly likely to be Sinsöng-gun (信城君 1578-1592), who was also infected by smallpox but was saved by the royal physician Hō Chun (許浚 1536-1615).¹⁷ The existing record also suggests King Sönjo had pockmarks on his face in 1593.¹⁸ Local regions, for example, Kongju in Ch’ungch’öng province, also reported smallpox infections in the first month of 1593.¹⁹ The royal family’s smallpox cases showed even higher mortality than the general populace in the late sixteenth century. The mortality rate of smallpox was high, ranging approximately from 15 to 40% according to the studies of smallpox cases in the late nineteenth century.²⁰ Although a limited sample size—there were only two princes and King Sönjo survived among the six cases of smallpox in the royal family—the rate among the royal family was also relatively high. All the cases and anxiety at the possibility of smallpox infection prompted King Sönjo to commission Hō Chun, who had cured a prince’s smallpox, to compile a medical text in 1601 that addressed smallpox. Hō completed the ‘Book of Smallpox, Korean Translation’ (諺解痘瘡集要 *Ŏnhae tuch’ang jipyo*) and published it through the Office of Royal Physicians (內醫院 Naeüiwön) in 1608. That text became a significant reference for smallpox treatment in later generations.²¹

Likewise, the Qing empire shared the same anxiety towards smallpox because of its impact, not only on daily life but also on politics, rituals, and foreign relations.²² The first Qing emperor Shunzhi (順治 1638-1661) died of smallpox at the age of 24 and smallpox caused problems for subsequent Qing emperors. Huang Taiji (皇太極, 1592-1643) was so concerned about smallpox infection that he established a new government

¹⁷ Existing scholarship has not proved whose smallpox was cured by Hō Chun either prince Kwanghae-gun or Sinsöng-gun. Because Kwanghae-gun was highly likely to have contracted smallpox in 1592, the prince whom Hō Chun treat could be Sinsöng-gun. Oh Chaekun 오재근, ‘Chosön üigwan Hō Chun üi tuch’ang üihak kwa p’yönjüng 조선 의관 허준의 두창 의학과 “변증”’, *Ŭisahak* 의사학 30, no. 1 (2021): 42.

¹⁸ *Sönjo sillok* 39: 38A (1593.6.28). “尙宮 朴氏云, 兩眼間有黑子, 比菘豆差小, 龍顏微有痘疹痕.”; *Sönjo sillok* 39: 38A (1593.6.28). “西陵君母言, 玉體稍長於中人, 鼻梁隆高, 龍顏長, 而微有痘疹痕.”

¹⁹ Cho Chöng 조정 (趙靖). *Kömgan sönsaeng chinsa illok* 검간선생진사일록(黔澗先生辰巳日錄). 1593.1.17. Accessed November 25th 2020, <https://diary.ugyo.net/>. 聞鄭景任以覓得糧餉事。往在公州得痘疾。不勝驚慮。景任所得米幾至二百餘石云。足以資數月之用。可喜。午後進屏川。大將以下皆安矣。所得軍糧弓矢等物。照數輸納。陣中喜其優得也。

²⁰ Kim Changsu 김창수, ‘Chosön hugi Chosön-Ch’öng kwan’gyewa kukwangm üi kōn’gang munje -Sukjong ch’oban kyoyöngrye rül tullössan kaldüngül chungsim üro 조선후기 조선·청 관계와 국왕의 건강 문제 -숙종 초반 교영례(郊迎禮)를 둘러싼 갈등을 중심으로-’, 1013.

²¹ Oh Chaekun 오재근, ‘Chosön üigwan Hō Chun üi tuch’ang üihak kwa p’yönjüng 조선 의관 허준의 두창 의학과 “변증”’, 35–68.

²² Koo. *P’yöngja horan, Hong Taiji üi chönjaeng*, 259–84; Chang, ‘Disease and Its Impact on Politics, Diplomacy, and the Military’.

position especially for checking smallpox as early as 1622.²³ Among the Qing armies, those who had recovered from smallpox were referred to as *shoushen* (熟身 literally the cooked body); while those who had not yet contracted smallpox were called *shengshen* (生身 literally the raw body). Therefore, soldiers with smallpox immunity were considered advantageous, while smallpox continued to panic those who had not yet contracted it.²⁴ Emperor Huang Taiji, who had not yet been infected with smallpox, said that ‘Since Chosŏn had been conquered, to avoid smallpox (I) returned earlier’.²⁵ Koo Bomjin has made a concrete study on the impacts of smallpox on the course of the Manchu invasion of Korea in 1637 and argues that it was a smallpox outbreak in a military camp near to where Hong Taiji was based that drove him to make a sudden shift towards negotiation and advanced his attack of Kanghwa Island where King Injo was in hiding.²⁶ Smallpox should be considered as a factor in Qing’s withdrawal in addition to political, economic, and military factors.²⁷

The panic over smallpox spread both in the Qing empire and in Chosŏn, and it was not limited to the royal family but also included the entire society.²⁸ To prevent infection, people moved house and cancelled gatherings and funeral ceremonies.²⁹ Chaotic scenes are depicted in Chosŏn literary works. For example, in a poem written by Hong Ryŏha (洪汝河 1620-1674) in 1645 to recall escaping smallpox in the mountains, people were ‘robust or ghostly. It is heard in the entire nation, half were moaning. This is not human-made, but I am afraid that it is hard to rely on heaven’.³⁰ The poem conveys various emotions that the smallpox outbreaks brought: fear, tension, sadness, insecurity, and change, although sometimes outbreaks were also viewed as an opportunity to pursue self-examination.³¹

²³ Chia-Feng Chang, ‘Disease and Its Impact on Politics, Diplomacy, and the Military: The Case of Smallpox and the Manchus (1613-1795)’, *Journal of the History of Medicine and Allied Sciences* 57, no. 2 (April 2002): 180.

²⁴ Chang, ‘Disease and Its Impact on Politics, Diplomacy, and the Military’, 185.

²⁵ *Taizong wenhuangdi shilu* (太宗文皇帝實錄), vol. 37, Chongde 2(1637.7.5).

²⁶ Chang, ‘Disease and Its Impact on Politics, Diplomacy, and the Military’, 185.

²⁷ Kye Seungbum 계승범, ‘1637 nyŏn Ch’ŏngnara ūi Chosŏn chŏnjaeng -Koo Bomjin 『Pyŏngja horan, Hong Taiji ūi chŏnjaeng』 e taehan sŏp’yŏng 1637년 청나라의 조선 정복 전쟁-- 구범진, 『병자호란, 홍타이지의 전쟁』 (까치, 2019)에 대한 서평’, (Kkach’i, 2019), *Tongbuga yŏksa nonch’ong* 동북아역사논총 69 (2020): 339.

²⁸ See more about epidemics and panic, Robert Peckham, *Empires of Panic: Epidemics and Colonial Anxieties* (Hong Kong: Hong Kong University Press, 2015).

²⁹ For one example, see Kim Ryŏng. *Kyeam illok* 溪巖日錄. Accessed November 25th 2020, <https://diary.ugyo.net/>. (1619.5.1). 晴。奠盃家廟。以閭里痘疹。端午祀事。亦多拘礙。

³⁰ Hong Ryŏha 洪汝河, *Mukchae sŏnsaeng munjip* 木齋先生文集 Vol. 124):331b.述懷 - 乙酉避痘在山幕, “脆弱幸完全, 壯健或鬼簿, 聞道學國人, 一半吟疾瘡, 致此豈人事, 抑恐天難怙

³¹ Kim Youngju 김영주, ‘Chosŏn hanmunhak e nat’anan tuyŏk 조선한문학에 나타난 두역’, *Hanmun kyoyuk yŏn’gu* 한문교육연구 29 (2007): 515–43.

When the entire peninsula was afflicted with smallpox in the seventeenth century, naturally smallpox posed a threat to politics and diplomatic rituals. As discussed in the following, one imperial envoy was infected on his way to Hansŏng in 1655 and the Chosŏn king Sukjong contracted smallpox in 1684 albeit having been cautious about the prevention. As both of them played significant roles in Sino-Chosŏn relations, the immediate responses to their smallpox infections not only involved medical treatment for their health but also reflected the foreign relations between the Qing empire and Chosŏn.

Treating smallpox-infected Qing envoys

The establishment of the Qing Empire in 1644 precipitated a new stage in the Sino-Chosŏn tribute or Zongfan 宗藩 system where Chosŏn played an essential role in the Qing-centric world order.³² The Qing empire would at times dispatch envoys to announce imperial succession, offer investiture to a crown prince, and confer noble rank on a deceased king, as well as some other special investigative envoys to discuss border conflicts and cross-border disputes. Meanwhile, to welcome imperial decrees (詔) and orders (敕) when issued to Chosŏn, there was a series of rituals chronologically divided into three parts that prescribed the manner in which the Qing envoys were to be treated: the welcome in the suburbs, the reception at the royal palaces, and the farewell.³³ Normally the Yŏngjŏp togam 迎接都監 (Director in charge of welcoming imperial envoys) would be dispatched to the northern border to welcome the envoys all the way to Hansŏng and send update reports to the Chosŏn King. When the imperial envoys arrived at the post station Hongje-wŏn (弘濟院 literally Palace of grand relief) they changed into formal attire to meet the Chosŏn king. Outside Hansŏng city walls and adjacent to the west gate was the Mohwagwan (慕華館 Guest hall of cherishing China) where the Chosŏn king himself would await the imperial envoys. Such greeting rituals were intended to show respect to imperial decrees and orders. After the envoys entered the fortress walls of Hansŏng, the Chosŏn King would usually receive the imperial orders and the decree of the investiture of a Chosŏn king at the main hall Injŏng-jŏn (仁

³² See more on Yuanhong Wang, *Remaking the Chinese Empire: Manchu-Korean Relations, 1616–1911*, 2018.

³³ More detailed rituals were recorded in Compendium of the Interpreter's Bureau 通文館志 *Tongmungwan-ji* and a summary of rituals for guests 嬪禮總覽 *Pillye ch'ongnam*, Kyujanggak Institute of Korean Studies.

政殿 Palace of benevolent government) within the Ch'angdök-gung (昌德宮 Palace of prosperity and virtues). The Qing envoys would announce the imperial orders, and the Chosŏn king bowed and kneeled to receive the imperial orders. If it were an imperial decree, such as the conferral of noble rank to the previous king, then the Chosŏn king would receive the decree at the Hun-jŏn (魂殿 Palace of spirits). Sometimes, when the king felt uncomfortable or anxious about smallpox infections, an important minister could attend on behalf of the king at the ceremony to receive imperial orders, but this would be held at a side hall (便殿) and might cause debate and conflict between the two countries. These ceremonies were followed by the king's visit to the emissaries at their residence, where banquets and tea ceremonies would be held. At the last stage, the Chosŏn kings would hold a departing ceremony at the Mohwagwan outside the city walls and offer a tea ceremony again, while the government would dispatch officers to arrange receptions at several different places on the envoys' way back to Beijing. A Chŏnwisa (餞慰使 Officers of farewell) escorted them.³⁴ The Chosŏn kings were supposed to follow the requirement to attend most of the ceremonies and rituals themselves, the routines of which consolidated the hierarchical Zongfan Sino-Chosŏn relations.³⁵

The Chosŏn court took great pains to treat Qing envoys who contracted diseases, such as smallpox, and different functionaries worked collectively to treat him, including local officers, royal physicians, and multiple other officers. For example, in 1655 Hŏ Chŏk (許積 1610-1680) was commissioned as Wŏnjŏpsa 遠接使 (Superintendent of reception preparation) with the responsibility to welcome the Qing envoys and escort them along the way from the northern border to the capital Hansŏng. He was sent out to meet the Qing emissaries on the eighth day of the second month of 1655.³⁶ He first became aware that the Qing imperial deputy envoy was sick on the thirteenth day and immediately reported to the court that the schedule for the imperial envoys to cross the Yalu River was postponed. He suggested the Ministry of Rites (禮曹 Yejo) should dispatch physicians to treat the sick emissary. In addition, a palanquin drawn by horses (駕轎 *kakyo*) was sent to collect the deputy envoy at Fengcheng or Fenghuang city

³⁴ *Tongmungwan-gi* 通文館志, vol. 4, Sadae 事大, Kyu 882-v. 2: 52, possessed at Kyujanggak Institute of Korean Studies, accessed on October 9, 2021.

³⁵ Wang, *Remaking the Chinese Empire*, 100.

³⁶ *Sŏngjŏngwŏn ilgi* 134. Hyojong 6. 1655.2.8. 右議政沈之源笥子。

(鳳城, in Liaoning province, Figure. 24), because he was too unwell to ride a horse.³⁷

Figure 24 The route of imperial envoys from Fengcheng to Hansŏng in the sixteenth century (The line connecting Fengcheng and Hansŏng forms the route that the imperial emissaries took to Chosŏn Korea.)



Soon afterwards, Hŏ Chŏk confirmed that the deputy envoy was indeed infected by smallpox, and he earnestly requested that the Office of the Royal Physicians dispatch a physician on the sixteenth day of the second month in advance of them crossing the river.³⁸ This series of emergent responses from the Chosŏn government was completed within ten days, and the Qing envoys to Chosŏn were well treated.

Meanwhile, the Office of the Royal Physicians also helped take care of the Qing envoys. After receiving the request from the Wŏnjŏpsa, the Office of the Royal Physicians immediately sent a royal doctor together with medicine to the borderland.³⁹ When the pills for purifying the heart (清心元 *ch'ŏngsinwŏn*) were running out, The Office of the Royal Physicians sent another dozen while the envoys were still in Py'ŏng'an province on their way to Hansŏng.⁴⁰ The other, superior Qing envoy, (上使

³⁷ *Sŭngjŏngwŏn ilgi* 134. Hyojong 6. 1655.2.13. 迎接都監啓曰, 卽接遠接使狀啓, 則勅使今月十一日, 當爲渡江, 而副勅有病, 站站前進, 必致處處留調, 二十八日擇吉, 勢未及入京云。令該曹急急改擇日下諭, 而自前勅使有病, 則例有遣官問疾之舉, 亦令該曹稟旨舉行, 何如? 傳曰, 允。出都監謄錄 1655.2.14 遠接使書目, 副使病不能跨馬, 今日則仍留鳳城, 使之入送駕轎事。

³⁸ *Sŭngjŏngwŏn ilgi* 134. Hyojong 6. 1655.2.16. 迎接都監啓曰, 勅使副使, 纔經痘疫, 渡江之後, 必有請醫之舉云, 令內醫院擇定醫官, 爲先下送, 何如? 答曰, 問于內醫院, 自前彼人相見御醫下送, 可也。出內醫院日記

³⁹ *Sŭngjŏngwŏn ilgi* 134. Hyojong 6. 1655.2.16.

⁴⁰ The name of superior envoy was nyŏnggori 甯古里. *Sŭngjŏngwŏn ilgi* 134. Hyojong 6. 1655.2.25. 延接都監啓曰, 卽接遠接使許積狀啓, 則勅使病中所用清心元盡用, 難繼應副云。令兩醫司, 清心元十餘丸, 急速付送撥便,

C. *shangshi*) who worked as a secretary to the Ministry of personnel (吏部侍郎 C. Libu shilang) in the Qing empire, had been suffering from eye tumours even before his visit to Chosŏn and The Office of the Royal Physicians dispatched a royal physician who was talented at acupuncture to treat him.⁴¹ Thus, both of the Qing envoys at this time (1655) received access to royal medical resources arranged by the Chosŏn court.

Whenever the Wŏnjŏpsa conveyed the needs of the emissaries during their stay at the capital, the relevant Chosŏn government departments would fulfil the envoy's desires even when these were difficult, particularly those relating to health and diet. When the smallpox-infected deputy envoy could not attend the tea ceremony at the main shrine Injŏng-jŏn, the Chosŏn court sent servants to treat him and placed a tea table in his room while the tea ceremony hosted by King Sukjong for the other envoys was taking place.⁴² These provisions made for sick envoys were required by diplomatic protocol; however, the Chosŏn government went further than required. For example, the infected deputy envoy did not have an appetite and was particular about food. He asked for raw pork and venison. Although it was a difficult task to procure these within a limited time, the Military Training Command (訓練都監 *Hullyŏn togam*) selected several good hunters from the army to capture wild pigs and deer and managed to provide the diet the envoy wanted.⁴³ Not only this sick envoy but also the other Qing envoys had their particular requests. Some asked for six-to-seven *ryang* 兩 of ginseng for medical usages. The Chosŏn court was afraid of the request of ginseng becoming a routine among Qing envoys, but it still prepared ten *ryang* of ginseng and large, round ceramic plates as presents for the envoys before their departure.⁴⁴ Thus, we can see that the Superintendent of reception preparation, provincial administrators, royal physicians, and multiple ministries at the central court cooperated to take care of the Qing envoys

何如? 傳曰, 允。出都監謄錄

⁴¹ *Sŭngjŏngwŏn ilgi* 134. Hyojong 6. 1655.3.3. 上使가 눈병에 걸려 내일 아침까지 名醫를 보내줄 것을 요구한다는 延接都監의 계又啓曰, 上使令差備譯官傳言曰, 自未渡江前, 兩眼有眵肉, 症勢漸至添重, 欲得名醫, 診視病處, 以爲劑藥治療之計, 內醫中術業精明者, 趁明朝入送館內云, 敢啓。傳曰, 中路醫官, 使之又爲往見。

⁴² *Sŭngjŏngwŏn ilgi* 134. Hyojong 6. 1655.3.3. 副使의 처소에 近侍를 따로 보내 안부를 물을 것과 兩使를 접견할 때와 같이 茶啖을 행할 것을 청하는 延接都監啓曰, 副使不爲一時詣闕, 自中路卽入館所事, 已爲停當云。兩使頒勅, 未及還館之前, 副使處, 似當有別遣近侍, 先爲致問之舉, 敢此申稟。只自上接見兩使時, 既有應行茶啖, 副使處, 自館所一樣設行事, 分付舉行, 何如? 傳曰, 依啓。

⁴³ *Sŭngjŏngwŏn ilgi* 134. Hyojong 6. 1655.3.3. 副使가 生雉膾와 生獐膾를 요구하므로 京營庫와 訓練都監에서 마련하도록 할 것을 청하는 延接都監의 계 延接都監啓曰, 差備譯官, 以上勅使之言來傳曰, 副使重病之餘, 食飲不甘, 思喫生雉·生獐膾, 故來路各站, 覓得進排, 而入京後, 又如是求食, 活雉·生獐, 某條覓入云云。病中如是懇求之物, 勢難防塞, 活雉則令京營庫, 給價覓納, 而至於生獐, 則雖不得逐日入給, 猝然辦得爲難。依前例, 令訓練都監善放砲手, 獵得若干首, 以爲應副, 何如? 傳曰, 允。

⁴⁴ *Sŭngjŏngwŏn ilgi* 134. Hyojong 6. 1655.3.8.

during their visits, and rituals and health were key foci of their endeavours.⁴⁵

Chosŏn endeavoured to satisfy the Qing envoys for two main reasons. First, Chosŏn aimed to adhere to the diplomatic rituals in an effort to maintain its status as a 'little China' in front of the Qing 'barbarians.'⁴⁶ Secondly, especially after Chosŏn's defeat at the hands of the Manchus in 1636, the Chosŏn court had to send tribute to the Qing empire and follow the rituals, because this was what the Qing empire demanded. Nonetheless, there remained tensions between compliance with the rituals and the reluctance of some ministers to submit to the Qing 'barbarian' culture.⁴⁷ Thus, it should be noted that the efforts that Chosŏn made to welcome the Qing envoys, to treat the smallpox-infected deputy envoy, and to meet their needs, occurred despite the fact that Chosŏn officers were sometimes reluctant to do so.

In return for Chosŏn's considerate reception, the Qing envoys also expressed thanks and even requested a simplification of some rituals. Following the rituals, King Hyojong, the prince, and significant ministers held a grand feast to welcome the Qing envoys at the main palace of Injŏng-jŏn (仁政殿 literally Benevolent government) on the sixth day of the third month in 1655.⁴⁸ On this occasion, the Qing envoy showed their appreciation to Chosŏn's hospitality in awaiting the envoys in the suburbs and treating them well during their stay. They also waived requiring the king's attendance at the ceremony for dismounting from horses, because they felt the rituals were too superior for them, and the other deputy envoy was still sick and could not attend the ceremony.⁴⁹

⁴⁵ For more discussion on Sino-Chosŏn rituals, see Huang Zhilian 黄枝连, 'Chaoxian de ruhua qingjing gouzao - Chaoxian wangchao yu Manqing wangchao de guanxi xingtailun; Wang, *Remaking the Chinese Empire* 朝鮮의 儒化 情境构造——朝鮮王朝与滿清王朝的关系形态论', in *Tianchao lizhi tixi yanjiu* 天朝礼治体系研究, vol. 3 (Beijing: Zhongguo renmin daxue chubanshe 中国人民大学出版社, 1995); Kim Hankyu 김한규, *Sajo sŏnnok yŏn'gu: Song, Myŏng, ch'ŏng sidae Chosŏn sahaengnok ūi saryojŏk kach'i* 사조선록(使朝鮮錄) 연구: 송(宋), 명(明), 청(淸) 시대 조선 사행록(使行錄)의 사료적 가치 (Seoul: Seogang University Press, 2011).

⁴⁶ This has been well discussed among scholars, see Sun Weiguo 孙卫国, *Daming qihao yu xiaozhonghua yishi* 大明旗号与小中华意识(Beijing: Shangwu yinshuguan 商务印书馆, 2007); Hŏ T'ae-yong 허태용, *Chosŏn hugi chunghwaron kwa yŏksa insik* 조선 후기 중화론과 역사인식(Seoul: Ak'anet 아카넷, 2009); U Kyŏngsŏp 우경섭, *Chosŏn Chunghwa chuŭi ūi sŏngnip kwa Tongasia* 조선중화주의의 성립과 동아시아(Seoul: Yunisŭt'ori 유니스토리, 2013); Kim Yŏngsik 김영식, *Chungguk kwa Chosŏn, kŭrigo Chunghwa* 중국과 조선, 그리고 중화 (P'aju: Ak'anet 아카넷, 2018); Wang, *Remaking the Chinese Empire*.

⁴⁷ Sun, *Daming qihao yu xiaozhonghua yishi*, 398–408; Wang shared the similar opinion, see also Wang, *Remaking the Chinese Empire*, 113.

⁴⁸ *Hyojong sillok* 14: 16A (1655.3.6). 上宴淸使于仁政殿。令世子行酒, 左右至有垂涕者。上謂淸使曰: "世子年幼, 且未經痘疫, 禮多簡易, 心甚未安。" 淸使答曰: "俺等瞻望世子, 儀表非常。禮貌得中, 此必皇穹眷佑, 篤生天人, 國家將享太平, 願國王勿以未經痘爲慮。" 【淸使爲冊封而來, 故世子不得已行禮。】

⁴⁹ *Sŭngjŏngwŏn ilgi* 134. *Hyojong* 6. 1655.3.13. 又啓曰, 卽接上三使令差備譯官傳言曰, 明日下馬宴, 主上將爲親臨云。其於款接之意, 不勝感激, 而但念同行之人, 病不得出參, 俺等獨承盛禮, 非但心所不安,

Chosŏn endeavoured to ensure both the ritual safety of the Qing representatives and to minimize possible impacts on relations with the Qing empire in 1655 when smallpox outbreaks were prevalent.⁵⁰ Before the Qing envoy's arrival in the early days of the second month of 1655, ministers had been discussing how the prince should welcome and greet them because they came in the name of offering investiture to the prince (王世子冊封勅).⁵¹ According to the *Kukcho orye sŏrye* 國朝五禮序例 (Introductory Remarks on National Rituals) established in the early Chosŏn dynasty, the prince should go to the Mohwagwan to welcome the imperial decree for his investiture. Given the epidemics spreading across the country, the ministers suggested that the prince not go outside the Hansŏng city wall to welcome the Qing envoys but hold a banquet as a substitute ritual.⁵² To make up for the simplicity of the reception, the prince served alcohol to the Qing envoys at the welcome banquet in the main hall, where the king also cautiously expressed his pity that 'the prince is still young and has not yet been exposed to smallpox, so I feel upset about the simplicity of the ceremony.'⁵³ Despite contravening the required rituals, the prince's inability to welcome and offer farewell to the Qing envoys in the suburbs was well explained to the Qing envoys in the course of Chosŏn's alternative rituals.

Concerns regarding the ritual safety and the health of the prince also restricted the prince's domestic activities. For example, around the same time, King Hyojong was scheduled to attend an ancestral ritual, which was also a compulsory activity for princes. Due to the smallpox outbreak, however, the Ministry of Rituals persuaded the king not to allow the prince to go together with him but stop the prince and let him offer farewell to the king's procession in front of the inside door of the Hansŏng gate.⁵⁴ The Ministry of Medicine was also earnestly concerned about the health of the prince: 'nowadays towns are full of smallpox infection and no suburban greetings for the imperial envoys was also due to this.'⁵⁵ Therefore, the smallpox infection had tremendous impacts on

郊外遠臨，勞動之餘，又蒙來臨，亦甚未安。明日之宴，切勿親臨，宴床排設，則俺等自當臨時區處云云。

⁵⁰ *Sŭngjŏngwŏn ilgi* 134. Hyojong 6. 1655.3.7. 禮曹啓目，粘連咸鏡監司狀啓云云，癘疫尤可驚愕，別遣近侍，北青中央處，致祭，何如？啓依允，人民之死亡至此，其爲驚愕，孰有大於此者乎？此外可以救濟之方，令道臣商度啓聞。

⁵¹ *Sŭngjŏngwŏn ilgi* 134. Hyojong 6. 1655.1.6.

⁵² *Sŭngjŏngwŏn ilgi* 134. Hyojong 6. 1655.1.9.

⁵³ Hyojong sillok 14: 16A (1655.3.6). ○上宴清使于仁政殿。令世子行酒，左右至有垂涕者。上謂清使曰："世子年幼，且未經痘疫，禮多簡易，心甚未安。"

⁵⁴ *Sŭngjŏngwŏn ilgi* 134. Hyojong 6. 1655.3.17. 禮曹啓曰，曹啓辭，康陵親幸時事目，當爲磨鍊，而閭閻痘疫，尙未寢熄云，大駕出宮時，王世子闕門外祇送，及還宮時城門外祇迎，俱似難便，何以爲之？敢稟。傳曰，勅使回還後，更稟處之事，傳教矣。勅使之行，既已回還，何以爲之？敢此申稟。傳曰，世子隨駕。

⁵⁵ *Sŭngjŏngwŏn ilgi* 134. Hyojong 6. 1655.3.18.

domestic politics as well as on diplomatic rituals.

On the occasions when the imperial envoy contracted smallpox, the Chosŏn government provided him with special care. Likewise, when the Chosŏn ministers placed priority on the health of their royals who had not yet contracted smallpox and restricted their activities, the imperial envoys also showed understanding of the way that the Chosŏn court managed the smallpox infection as well as foreign relations. The imperial envoys even suggested that the king should absent himself from the ceremony. King Hyojong fell ill right before the farewell feast in the suburbs scheduled on the fourteenth day of the third month.⁵⁶ Aware of the news, the imperial envoys did not insist on the king's presence and instead proposed that, 'if the king does not feel well, why does he brave the wind to come in person.'⁵⁷ For the health of the king, a minister performed the banquet on his behalf at the farewell ceremony outside the city walls, which did not cause any conflict with the Qing envoys. Rather, Qing emperor Shunzhi (順治, 1638-1661) was also satisfied by the Chosŏn government's performance in receiving his envoys and even realized their visits to Chosŏn could cause a disturbance, so he urged the relevant officers to examine the necessity of the trip to Chosŏn first and then to request permission.⁵⁸

Absence from the rituals of awaiting the imperial envoys in the suburbs

The practice that the Chosŏn King did not go beyond the walls of Hansŏng to welcome the Qing envoys and the Qing emperor's decree was well accepted and did not lead to any dissatisfaction when smallpox struck the Korean peninsula in 1655; however, on another occasion, in the early years of King Sukjong (1674-1720)'s reign, the king's absence caused diplomatic problems. The existing scholarship on these problems contains two main perspectives. The first holds that smallpox was a convenient excuse that was used by the king to avoid performing the usual rituals. The Chosŏn court acceptance of avoidance was because they still held out hope that there

⁵⁶ *Sŭngjŏngwŏn ilgi* 134. Hyojong 6. 1655.3.13.

⁵⁷ *Sŭngjŏngwŏn ilgi* 134. Hyojong 6. 1655.3.13. 上候不意未寧, 則明日何必冒風親臨乎? 郊外餞宴, 若得拜謁則此亦幸矣云云, 明日宴禮則依例遣大臣代行似當, 敢啓。傳曰, 知道。出都監謄錄

⁵⁸ *Qingshilu*. Shunzhi 15. 1658.11.15.

諭禮部。朕撫御萬方。中外臣民、皆同一視。朝鮮恭順有年。尤厯體恤。聞遣使該國多員、貿易滋擾。朕心殊為不忍。嗣後凡有事差往使臣。止用正使副使各一員。務擇諳習禮儀、任事謹恪者。其八分人員隨往、及貿易、俱行停止。若遇有審察事情。該部酌其事之輕重、奏請選差。以昭朕字愛藩服至意。

would be a revolt against the Qing and a restoration of the Ming.⁵⁹ The second perspective from the history of medicine focuses on the health of the king and smallpox outbreaks, connecting their impact to the king's attendance or absence at the suburban greetings for the imperial emissaries.⁶⁰ Based on but differing from these previous studies, I also concentrate on the concerns about smallpox combined with its impact on both domestic and diplomatic activities to discuss conflicts over ritual in a broader sense and a longer period of observation that stretches to after the conflicts calmed down. This section views a series of rituals to treat the Qing envoys and examines whether 'smallpox outbreaks in every town' was a real excuse for the king's absence. I argue that the Chosŏn government placed a priority on the health of the king when confronted with the smallpox panic, and it also made efforts to minimize the damage to Sino-Chosŏn relations by implementing substitute rituals.

Given the high diplomatic costs of the king not awaiting the imperial envoys outside the capital wall, King Sukjong insisted on his attendance and did not want to disobey the diplomatic rituals that the Qing emperor demanded.⁶¹ According to the rituals recorded in the *Tongmungwan-gi* (通文館志 Compendium of the Interpreter's Bureau), the Korean magistrate of each county along the way (Figure. 24) would hold a reception for the envoys with the provision of temporary houses, food, and even gifts.⁶² Expenses for the Qing envoys receptions were tremendous and went beyond what the prefects could afford, especially for Pyŏng'an and Hwanghae provinces directly on the road used by the imperial emissaries. For example, in Ŭiju the prefect treated the imperial envoys to a banquet with over 130 kinds of food and as the envoys approached the capital, the more luxurious the receptions would become.⁶³ When the Qing envoys witnessed the bleak and desolate scenery of the Chosŏn farmland in the famine season of 1677, they proposed not holding banquets on their way back to Beijing and having

⁵⁹ Li Huazi 李花子, 'Qingdai Chaoxian de jiaochili -yi guowang jiaoying wei zhongxin 清代朝鮮의迎敕禮-以國王郊迎爲中心', *Ouya xuekan* 欧亚學刊 8 (2006): 277–86; Liu Anqi, 'Chosŏn hugi kukwang ũi Ch'ŏngsa yŏngjŏp ũrye yŏn'gu -Pillye ch'ongnan ũl chungsim ũro 조선후기 국왕의 청사 영접의례 연구-빈례총란을 중심으로' (M.A. diss, Seoul, The Academy of Korean Studies, 2019).

⁶⁰ Kim Changsu 김창수, 'Chosŏn hugi Chosŏn-Ch'ŏng kwan'gye wa kukwang ũi kŏn'gang munje -Sukjong ch'oban kyoyŏngrye rŭl tullŏssan kaldŭng ũl chungsim ũro 조선후기 조선·청 관계와 국왕의 건강 문제 -숙종 초반 교영례(郊迎禮)를 둘러싼 갈등을 중심으로-', *Ŭisahak* 의사학 29, no. 3 (2020.12): 999–1028.

⁶¹ *Sŭngjŏngwŏn ilgi* 250. Sukjong2. 1676.1.22. 積曰, 勅使臨迫, 郊外迎勅, 何以爲之? 上曰, 若不郊迎, 多費銀子矣。

⁶² *Tongmungwan-gi* 通文館志, vol. 4, Sadae 事大, Kyu 882-v. 2:52, possessed at Kyujanggak Institute of Korean Studies, accessed on October 9, 2021.

⁶³ Wang, *Remaking the Chinese Empire*, 99.

tea instead at the seven reception stations in order to relieve the burdens laid on the populace.⁶⁴ Economy was not usually the case, and the high costs of the Qing envoys' treatment, up to several thousands of *ryang*, were unaffordable for the western magistrates and even for the central institutes, such as the Ministry of Taxation (戶曹 Hojo) to arrange a budget or the Ministry of Military Affairs (兵曹 Pyŏngjo) to arrange horses and soldiers to greet the Qing envoys in the suburbs. So, King Sukjong thought it was his turn to welcome the envoys in order to reduce local burdens in the second month of 1679, albeit with the fear of smallpox infection.⁶⁵ In the end, nonetheless, to protect the king's health, the Chosŏn court persuaded the king not to attend the suburban greeting and dispatched an important minister to serve in his place.⁶⁶

Meanwhile, the Chosŏn government was aware of the potential problems that would arise if there were no suburban greetings of the Chinese envoys due to smallpox, and so efforts were made to treat the imperial envoys well and to put forward an image of Chosŏn as a state of ceremony and propriety. These measures included requesting permission for the king's absence from suburban greetings ceremonies in advance, the dispatch of important ministers to welcome the Qing envoys, tea ceremonies hosted by the king, and tea ceremonies at the envoys' residence, out of consideration for their exhaustion or illness. For example, due to the smallpox panic, Chosŏn sent a request in advance for the king's absence from the Mohwagwan ceremony of greeting the envoy to the capital. The imperial emissaries showed their anger and rejected it in the third month of 1676. Despite the smallpox outbreaks, the king followed the rituals and welcomed the imperial envoys outside of the walled capital.⁶⁷ In addition, as shown in Table 11, the king attended the tea ceremony at the main shrine Injŏng-jŏn in 1676 and

⁶⁴ *Sŭngjŏngwŏn ilgi* 262. Sukjong3. 1677.11.7. 又以迎接都監言啓曰, 勅使回還時, 一路宴禮減除事, 使差備譯官等, 觀勢周旋矣。缺通官等, 以勅使之意傳言曰, 俺等渡灣以後, 目見本國飢荒缺只設義州·定州二度宴禮及一路夕茶啖而已。其後各處宴禮, 各站朝晝茶啖, 館所應行, 舉皆減除, 則回還, 將不可異同, 自弘濟院, 至義州七處宴禮, 勿爲備待, 各站朝晝茶啖, 依上來時例, 亦勿豫備之意, 卽爲啓知行會, 以除民弊云。一路除弊, 誠爲不少, 臣等, 使差備譯官等, 以軫念小邦民弊, 京外應行之宴禮, 朝晝茶啖, 竝爲減除, 不勝感激之意, 措辭致謝, 三道監司·開城留守處, 卽以此行會, 而自前如此之時, 有遣中使申謝之舉, 亦於中路, 有別遣問安使之舉, 令政院, 考例舉行, 何如? 傳曰, 允。

⁶⁵ *Sŭngjŏngwŏn ilgi* 268. Sukjong 5. 1679.2.10. 上曰, 初則以痘患, 與前差異, 故欲爲出迎矣, 今則痘患, 無止息之期耶? 戶曹糜費及使臣往來之際, 西路人馬, 亦似難支, 今則出迎似可矣。大運曰, 糜費幾至數千兩, 驛馬廚傳, 亦不無其弊, 而此皆不足恤也, 其弊亦幾許耶? 兵曹馬騎去人馬之弊, 亦安有哉?

⁶⁶ *Sŭngjŏngwŏn ilgi* 268. Sukjong 5. 1679.2.10. 大運曰, 前年勅使時, 則自上方在調攝中, 決不可出迎, 故小臣往請之矣, 今則上候雖安寧, 而特以拘忌之疾, 難於出迎, 故欲別遣重臣以請之, 彼之堅執, 若不如前春之甚, 則雖只遣重臣, 亦可以成事矣。

⁶⁷ *Sŭngjŏngwŏn ilgi* 252. Sukjong2. 1676.3.16.

1679, although he was frightened of smallpox infection. In these years, the smallpox outbreaks had been so severe that Yŏngnim-gun Yi Iksu (靈林君 李翼秀) described how ‘burning ashes from the bodies of those who had died from smallpox filled the mountains on the western outskirts of the city.’⁶⁸

The changes of clothes for different ceremonies also illustrate the extensive consideration paid to the performance of the rituals. Regarding the dressing of the king and ministers, the Chosŏn ministers first discussed at the court whether the king would like to wear a dark formal gown to mourn the deceased king and to show respect for the empire at the same time. However, they still inquired after the opinions of the imperial envoys in advance in case the imperial envoys disliked the dark costumes.⁶⁹ To prepare for the envoy reception and the tea ceremony, the king changed into another gown, which demonstrates that the Chosŏn court considered the minutest of ritual detail and took into account the preferences of imperial envoys.

The Chosŏn court always made preparations for possible conversations that might take place with the Qing envoys, and scripts were prepared for King Sukjong. These efforts expose both the Chosŏn diplomatic tactics and also their efforts to follow the rituals as much as possible despite the smallpox outbreaks. At the meeting with the Qing envoys, Chosŏn kings would first convey their greetings to the Qing emperor. Such formalized conversations remained unchanged, so current scholarship attributes this unchanging formality to the conservatism of Chosŏn attitudes towards the Qing empire.⁷⁰ I argue that although this was a formal ritual that involved asking after the health of the emperor, royal family, and the envoys by order of precedence, at the end, in the unscripted moments, the king had the freedom to engage in some ad hoc remarks, which he used to show his humble attitude towards the Qing. For example, referring to the protocol-breaking receptions for the Qing envoys, especially in cases where the king could not attend the suburban greetings, King Sukjong said at the farewell banquet in 1677, ‘I always feel regretful for the feast at the hall’ and ‘the suburban farewell is also a necessary routine.’ Although Chosŏn provided a sumptuous feast and performed substitute rituals, the king would always say the reception was not considerate enough in order to show his humble and modest attitudes in front of the Qing envoys. He

⁶⁸ *Sukjong sillok* 7: 16B (1678.5.13). 靈林君 翼秀上疏曰: 西郊大峴內, 今春痘疫化者, 草殯遍山。

⁶⁹ *Sŭngjŏngwŏn ilgi* 252. *Sukjong*2 (1676.3.17). 上曰, 然則往見, 而往見時服色, 以黻袍爲之, 可也。積曰, 可以擇日爲之矣。上曰, 唯。積曰, 臣, 使譯官試問于一善曰, 國王, 以黻袍來臨, 而勅使或以黻袍爲不可, 則其何以爲之? 一善以爲, 此則吾將擔當周旋云, 蓋已與勅使相議, 故如是耳

⁷⁰ Liu, ‘Chosŏn hugi kukwang ūi Ch’ŏngsa yŏngjŏp ūirye yŏn’gu -*Pillye ch’ongnan ūl chungsim ūro*’, 34.

further explained that the previous request for permission for one of his ministers to serve in his place at the farewell feast was because ‘the ministers suspended the farewell on account of the prevalence of smallpox and did not even report the matter to me. Rather, they told the interpreters in private, through whom you two envoys heard of it.’ This could be understood as a platitude, a diplomatic tactic in which the King blamed his ministers for the protocol violation, in order to show the king’s loyalty; however, King Sukjong attended the farewell banquet before their departure in 1677 so his attendance directly ameliorated any distrust of his loyalty to the Qing empire and proved his emphasis on rituals as well as his concern with Sino-Chosŏn relations.⁷¹ Again in 1678, the King said, ‘despite sickness, rituals by the host cannot be disregarded’ and insisted on staying at the tea ceremony. Even the imperial envoy was concerned about the health of the king, because he was sitting in the cold. The envoy asked him to retire from the banquet early. The King then left and the royal physicians immediately came to attend him.⁷² Thus, the king’s actions support the idea that he did indeed, as he claimed, wish to follow the rituals established by precedent if only his health had allowed it.

These efforts that the Chosŏn government made to treat the Qing envoys well meant that the king’s frequent absence from greeting and farewell ceremonies did not cause diplomatic conflicts until 1680.⁷³ Despite the Chosŏn king’s presence at the suburban greeting ceremony in the eighth month of this year,⁷⁴ the Qing emperor Kangxi voiced his suspicion about the health of the Chosŏn Kings in the ninth month of 1680: ‘the Chosŏn King, every time, claims to be sick and does not wait upon the imperial envoys.’ He ordered the envoy to ‘check carefully whether the king was sick and then come back with your report,’ and ‘if the Chosŏn king did not welcome you in the suburbs, then pay more attention to the rituals of imperial decree salutation and the

⁷¹ *Pibyŏnsa tŭngnok*. 1677.11.9. *Sŭngjŏngwŏn ilgi* 262. Sukjong 3. 1677.11.9. 館所一宴, 常恨未洽, 郊外餞別, 情禮當然, 而都監諸臣以痘疫熾盛之故, 欲停出餞, 不稟於予, 私自往議於通官, 致令兩大人聞知, 雖曰, 臣子爲君之情, 實不知予意之致, 尤用未安矣, 勅使曰, 云云

⁷² *Sŭngjŏngwŏn ilgi* 268. Sukjong 5. 1679.2.14. 上曰, 雖有病患, 其在主人之道, 不可廢也。勅使曰, 纔於幕次, 雖已茶啖, 而國王之意如此, 可以仰副矣。仍行茶禮訖。上謂勅使曰, 請賜茶通官。勅使〈曰〉, 欲賜則賜之。乃賜茶通官訖。勅使曰, 國王未寧中, 久坐冷處爲未安, 請退去。上曰, 予之久坐, 不足爲慮, 而僉大人行役之餘, 恐貽勞苦也。勅使曰, 俺等別無勞苦, 而國王未寧之中, 如是久坐未安, 罷去宜矣。遂起去。上送至階上。上還宮後, 藥房·政院問安。答曰, 知道。

⁷³ *Sŭngjŏngwŏn ilgi* 268. Sukjong 5. 1679.2.4 上曰, 小邦不幸, 連歲凶歉, 公私蕩竭, 一路接待, 殆不成樣, 而不但僉大人, 不以爲過, 宴享茶啖, 亦皆減除, 此實出於僉大人軫念小邦之弊, 而在主人之道, 殊甚埋沒, 還切愧赧。勅使曰, 一路極盡接待, 遠接使亦爲善待, 而再再如此, 不敢當矣。

⁷⁴ *Sŭngjŏngwŏn ilgi* 278. Sukjong 6. (1680. Intercalary 8. 9).

reception of the envoys.⁷⁵ When the Qing envoys came on the thirteenth day of the ninth month of 1680, they told the Chosŏn court that the king's awaiting the imperial envoy in the suburbs was compulsory this time.

In response to the dissatisfaction expressed by the Qing emperor, the Chosŏn ministers changed their attitudes accordingly, persuading the Chosŏn king to go to the Mohwagwan or Guest Hall of Cherishing China to welcome the Qing envoys.⁷⁶ Regardless, King Sukjong caught a cold and coughed incessantly on the twenty-first day of the ninth month in 1680, so he sent important ministers to Kaesŏng-bu instead to await the imperial envoys and to mediate between the two sides.⁷⁷ Although the ministers had been already dispatched to welcome the imperial envoys, the king felt a little better on the twenty-third day so he wanted to await the imperial envoys directly and asked the officers to cordon off the streets around the West Gate and examine the passersby whether they had contracted smallpox.⁷⁸ On the following day, illness eventually did stop the king from going to await the imperial envoys, and his ministers suggested the king make sure to look as though he was in pain during the rituals of receiving the emperor's decrees, meeting the envoys, and kneeling and worshipping, in order to make it clear he was ill and not to cause any misunderstanding.⁷⁹

However, the conflicts remained between the Qing and Chosŏn in 1681, when the king was unable to attend the waiting ceremony and the Qing envoy also rejected the Chosŏn request of no suburban greeting. The envoy threatened that, 'if the king does not come to welcome us in the suburbs, then we will return immediately from Hongje-wŏn (their residence).'⁸⁰ To examine whether the Chosŏn court made an excuse of smallpox outbreaks or the Qing misunderstood Chosŏn, the following aims to scrutinize

⁷⁵ *Sŭngjŏngwŏn ilgi* 278. Sukjong 6. 1680.9.13. 今此勅使來時，皇帝言於上勅曰，朝鮮國王，每以病久不郊迎，今於爾等之往，雖又不郊迎，勅書迎拜及接見時，其有病與否，詳察以來云，今番郊迎，則決不可不爲。仍言，此言若出，則俺當死耳，雖爾同官，勿令知之云。且曰，若有重臣來請，而俺等，不得已言於勅使，則必以爲與不爲，非吾所知，爲答，此後則不其難處乎？不如初不來請。俺等，固知周旋於此間，則亦有得食之事，而今番之事，所關非細，故不得不如言之云，而觀其辭氣。

⁷⁶ *Sŭngjŏngwŏn ilgi* 278. Sukjong 6. 1680.9.13.

⁷⁷ *Sŭngjŏngwŏn ilgi* 278. Sukjong 6. 1680.9.21. 而昨今日氣猝寒，聖體感冒咳嗽，何如？上曰，連服湯劑，感冒之氣，幾盡和解，而咳嗽間發作矣。壽恒曰，初寒甚峭，感冒不卽和解，恐致彌留，郊外舉動，事勢尤爲悶迫焉。旣送重臣于開城府，使之周旋，且以私書，通于遠接使，豫令更爲言及於大通官輩耳。

⁷⁸ *Sŭngjŏngwŏn ilgi* 278. Sukjong 6. (1680.9.23).

⁷⁹ *Sŭngjŏngwŏn ilgi* 278. Sukjong 6. (1680.9.24).

⁸⁰ *Sukjong sillok* 11: 30A (1681.3.29). 清使將入京，而以痘疫熾蔓，請停郊迎，清使不許以爲："若不郊迎，當自弘濟院還歸。" 且言魂殿致祭時，國王不可不親臨。領議政金壽恒請對曰："彼人以郊迎爲不可廢之禮節。況此上勅，爲人驕傲，節目間事，每每致察，畢竟雖或回聽，事甚窘迫。臣明日出往弘濟院，或可冀其得請，而至於魂殿致祭時，必欲自上親臨。今雖往復，終不聽從，則在前弔祭時，亦有別設虛位於他處之例，彼若終始堅執，則以卽今拘忌之疾，遍滿閭巷，決難動駕，勢將奉還魂殿於時御所，差退弔祭日期之意，預爲通知，臨時設位於便殿則好矣。" 上曰："卿言與予意合，依此爲之。而處所則以文政殿排設可也。"

the impacts of smallpox on Chosŏn domestic activities and the underlying reasons for the Qing's distrust of Chosŏn.

Smallpox panic and the health of the King

As tables 9 and 10 have confirmed, smallpox was rampant in Chosŏn Korea in the 1670s. This section examines the direct smallpox panic surrounding the royal family and the impacts it had on some domestic political activities.

King Sukjong suffered from various diseases in the early part of his reign.⁸¹ For example, in the tenth month of 1675, he had a fever and some spots, and although the royal physicians doubted it could be smallpox they immediately gave him some medicine.⁸² When Sukjong was infected by smallpox on the eighteenth day of the tenth month of 1683, seven royal physicians surrounded him to offer medical treatment, so he recovered soon from smallpox and the Chosŏn emissaries to Beijing reported this to the Qing empire in the sixth month of 1684, which to some extent explains why there were no emissaries from the Qing court in 1683.⁸³

Before King Sukjong contracted smallpox in 1683, the entire court was worried about his health and his habits of eating and living were carefully scrutinized. Even before Sukjong came to throne, King Hyŏnjong (顯宗 1641-1659-1674) cared about his diet and was afraid that the nature of mutton was so hot that it would harm him and cause a smallpox infection.⁸⁴ When the king was suffering from smallpox, he was offered a vegetarian diet.⁸⁵ Whenever a smallpox infection occurred in the palace, King Sukjong would move to a safer place. For example, he moved to Yangji-t'ang 養志堂 (Hall for Developing Aspirations) in 1675, where he managed national affairs while waiting to move into Kyŏngdŏk-gung palace 慶德宮 after the completion of its

⁸¹ Kim Changsu, 'Chosŏn hugi Chosŏn-Ch'ŏng kwan'gyewa kukwangŭi kŏn'gang munje', 1020.

⁸² *Sukjong sillok* 4: 56B (1675.10.24). 戊寅/藥房又入診。時，上熱候已退，而以有斑點之故，積等疑爲痘證，以服朱砂，則可易透出，請進之，上進服。

⁸³ *Sukjong sillok* 14:42B (1683.10.18). 上不豫，卽痘疾也 *Sukjong sillok*14:43B (1683.10.21). 戊午/藥房入診。左議政閔鼎重亦入侍。自是日，上只命藥房都提調金壽恒及下番翰林李玄祚偕醫官入侍寢所，其餘諸人皆進候於外廡下。廳事上軍號，依先朝溫幸時例，限十數日預爲排日啓下，入直軍士試才及各軍門試射等事及臺啓，竝自今日姑停。召痘醫柳瑞入侍，仍選內醫七人，與瑞晝夜侍上側。 *Sukjong sillok*15: 36B (1684.6.18). ○壬子/告訃使李濡等歸自燕。上引見，問事情，濡曰："臣等始至燕，翌日曉，引一行入闕中，閣老明珠立階上，問曰：'爾等來時，國有何事？'對稱：'小邦不幸，遭國恤，國王經痘之餘，因大喪添疾，舉國憂遑。此外無他事。'"

⁸⁴ *Sukjong sillok*3: 18B (1675.4.1). 先王嘗進御羊肉，多與公主，而少與上。以上未經痘，羊肉甚熱，慮其有傷，而公主雖愛，而不重，故多與之。

⁸⁵ *Sukjong sillok*14: 44A (1683.9.11). 藥房啓請，兩大妃殿素膳，勿爲進御。【以痘患藥忌，不進肉膳。】

decoration.⁸⁶ After the queen showed obvious symptoms of smallpox infection in the tenth month of 1680, the king immediately moved again to Ch'anggyōng-gung 昌慶宮. The queen died of smallpox in 1680, so the central court became even more careful about the king's health.⁸⁷

Meanwhile, King Sukjong's activities were restricted in order that he not be exposed to a large gathering of people, and some rituals were postponed or even cancelled. In 1677 his outdoor activities, such as a royal trip to Yōngnūng 寧陵, where the tombs of King Hyojong 孝宗 (1619-1649-1659) and Queen Insōn (仁宣王后, 1618-1674) were located, a ceremony for worshipping and offering alcohol to ancestors (Kakhōn-rye 酌獻禮), and the ritual of the king's ploughing (Ch'in'gyōng-rye 親耕禮), were postponed to the following summer.⁸⁸ He planned to attend the ritual of begging for rain in 1678; however, his ministers persuaded him not to go because of the smallpox infection and the imminent arrival of the imperial envoys.⁸⁹

As these examples show, smallpox prompted changes in the king's activities. Outbreaks also affected political activities within the state. For example, the routine of the Chosōn civil and military officers alternating to be present at the court to answer kings' questions was cancelled due to the spread of smallpox in 1675.⁹⁰ Instead, Sukjong continued to address national affairs after moving to another palace and summoned ministers to come to him when necessary. Confucian lectures (*kyōngyōn* 經筵), where the king listened to teachings on Confucian classics and held discussions, were useful, so he rejected the royal lecturers' request for cancellation in 1677. However, the lectures had to be cancelled in the ninth month of 1683 upon hearing that many royal lecturers had contracted smallpox.⁹¹

⁸⁶ *Sukjong sillok*3: 48A (1675.5.9). 丁卯/以宮人有患痘者, 上移御于養志堂, 將待修理, 移御于慶德宮, 仍命招大臣, 許積、金壽恒入侍。

⁸⁷ *Sukjong*11: 22B (1681.2.22). 庚申十月遭痘瘡, 憂念聖躬, 自忘其疾痛, 至發於夢語。父府院君從女醫入診, 則必力疾起坐, 收束致敬, 肩背聳直, 如不病時。及其大漸, 精神猶不少爽。竟以其二十六日辛亥亥時, 昇遐于慶德宮之會祥殿。

⁸⁸ *Sukjong sillok*6: 13B (1677.2.27). 領左相及兵判金錫胄, 禮判李之翼等, 屢言謁聖及寧陵行幸, 南別殿酌獻禮, 皆當行於春間, 請退行親耕於後歲。積、大運又以痘疾熾盛, 請退行, 至謂: "右相亦以爲不可不一行, 非必欲今年行之也。"

⁸⁹ *Sukjong sillok* 7: 16B (1678.5.13). 壬子/引見大臣、備局諸臣。是時, 上欲親自祈雨於太廟, 許積、權大運等以痘疫方熾、客使將至, 苦請寢止。諸臣繼言之, 上乃許之。

⁹⁰ *Sukjong sillok*5: 12B (1676.2.21). ○癸酉/下教曰: 從前每月初一日、十一日、二十一日, 以此取稟輪對, 因去年痘疫熾盛, 姑爲停止。今則幾盡消滅, 各司官員, 若非輪對, 無以陳其弊瘼。且人君明四目、達四聰, 下情通于上, 亦一道也。今後依前取稟。又教曰: "當此春耕方急之日, 各邑守令不可關曠。依前例, 除署經, 數日內發送。"

⁹¹ *Sukjong sillok*7: 1B (1678.1.15). 御書講。右議政許穆以城中痘患, 請姑停經筵。尹鑄上筭言不可, 上不聽。其後, 許積請從鑄言, 毋停經筵, 從之。 *Sukjong sillok*14: 41A(1683.9.19). 丁亥/政院啓言: "閭里痘盛,

While the royal lectures were cancelled, the civil examination also faced some challenges during the smallpox outbreaks. The last stage of the civil examination, the Palace Examination (*chǒnsi* 殿試), was held in 1678 despite the smallpox outbreak, because it was considered essential to continue the selection of talented candidates. The examination was shifted to the Injǒng palace in order not to expose the king to those who had a potential smallpox infection.⁹² The smallpox panic in towns directly affected the willingness of examinees to go to an examining site with smallpox outbreaks. For example, albeit passing the provincial exams and being accepted for taking one of the exams in the capital, examinees were more concerned about the smallpox situation rather than being delighted at the achievement.⁹³ A record also suggests that one examinee, on hearing about smallpox outbreaks at the examination site, returned home and settled in to study further.⁹⁴ When smallpox struck almost every town in 1630, candidates for the Literary Licentiate Examination who had never had smallpox before were barred from attending the exam in the capital.⁹⁵ In this way, smallpox outbreaks almost paralyzed the national civil examination system and became an obstacle for people to achieve an official career. In short, the Chosǒn government's responses to the smallpox contagion were to avoid any possible transmission route, even if that meant violating certain diplomatic precedents, restricting the activities of the king, or reducing the number of candidates for the civil service exam.

Re-examining changes to rituals in the midst of epidemics

The impact of smallpox on Chosǒn domestic society makes it clear that the smallpox panic in Chosǒn caused King Sukjong's absences from most public activities, even including receptions of imperial Qing emissaries. In this section I examine the same question from the perspective of the Qing empire and argue that the misunderstanding of Chosǒn's reasons was an outcome of the chaotic East Asian order in the 1680s.

講官多犯染,請姑停講筵。"從之。

⁹² *Sukjong sillok*10: 34B (1680.9.8). 癸亥/時,都下痘疹大熾。大臣啓請令朝士,出入闕中者,竝避忌,移設庭試於昌德宮之仁政殿,以上未經痘疹故也。

⁹³ Kwǒn Sangil 權相一. *Ch'ǒngdae ilgi* 清臺日記. Accessed October 25th 2021, <https://diary.ugyo.net/>. 1727.3.15.。

⁹⁴ Hwang Suil 黃壽一. *Yonggang illok* 龍岡日錄. Accessed October 25th 2021, <https://diary.ugyo.net/>. 1686. 9.14. 朝寫夕讀。夜燮叔以試所痘熾。還往進士祖家。仍與之論禮。

⁹⁵ Kim Ryǒng. *Kyeam illok* 溪巖日錄. Accessed October 25th 2021, <https://diary.ugyo.net/>.

晴而風。明日進士會試。全羅右道。以舉子脅試官。皮封不書謹封之故。削其初試榜。而處處痘熾發。未經之人。皆不赴。

The king's absence from the Guest Hall of Cherishing China at ceremonies to receive the imperial envoys was viewed in Beijing as a violation of diplomatic ritual and caused the Qing to consider the question of whether Chosŏn had any intention of rebellion. This was also the time when the Kangxi Emperor was pacifying the Revolt of the Three Feudatories (C. Sanfan zhi luan, 三藩之亂, 1673-1681) led by three lords of the fiefdoms in Yunnan, Guangdong, and Fujian provinces who helped the Manchus at first to defeat the Ming and conquer China, but then later went into revolt against the Qing.⁹⁶ Soon after suppressing the revolt and to strengthen central dominance, the Kangxi Emperor also took Taiwan in 1683 to suppress collaborators with the Revolt of the Three Feudatories. From that point onwards, the south-eastern coasts gained a long period of peace.⁹⁷ Meanwhile, the Qing included Chosŏn in its imperial blueprint and adopted a high-pressure policy regarding ritual disputes. The Qing also sent envoys to discuss a border dispute with Chosŏn. Hamgyŏng province Koreans who illegally harvested ginseng in Manchu were caught by Qing soldiers at the border in 1685; the two sides traded shots, and people were hurt.⁹⁸ These cases suggest that the Qing wanted to ensure the loyalty of Chosŏn.⁹⁹

The Qing records of the 1680s also suggest a change in attitude by the Kangxi Emperor towards the Chosŏn dynasty. The emperor became unsatisfied with King Sukjong's performance at diplomatic rituals designed to establish the superiority of the Qing and doubted Chosŏn's intentions behind the requests to minimize rituals and cancel the international trade in cattle in the midst of outbreaks. In 1685, King Sukjong reported that numerous cattle had died of rinderpest and the remaining cattle were insufficient for farming, so Chosŏn requested a suspension in the cattle trade at the Sino-Chosŏn international market. The veracity of this was doubted by the Ministry of Rites in the Qing court and the Qing ministers court considered the rinderpest outbreaks as an excuse to suspend the cattle trade. When this issue was discussed at the Qing court, Fo Lun, the minister of defence, argued that,

...in 1672, the Chosŏn tribute goods were different from previous times and the Chosŏn king should be asked to report again. The imperial

⁹⁶ Jonathan D. Spence, *The Search for Modern China* (New York: Norton, 1990), 49–52.

⁹⁷ Spence, 53–57; Wong Young-tsu, *China's Conquest of Taiwan in the Seventeenth Century: Victory at Full Moon* (Springer, 2017).

⁹⁸ Li Huazi, 'Qingdai Chaoxian de yingchili', 279.

⁹⁹ There were some other conflicts on rituals at the same time. See also Fuma Susumu 夫馬進, *Chūgoku Higashijia gaikō kōryūshi no kenkyū* 中国東アジア外交交流史の研究 (Kyōto: Kyōto Daigaku Shuppankai 京都大学学術出版会, 2019), 113–14. Kim Changsu, 'Chosŏn hugi Chosŏn-Ch'ōng kwan 'gyewa kukwangūi kōn 'gang munje', 1000–1005; Li Huazi, 'Qingdai Chaoxian de yingchili', 280.

commands have been lenient. We think that the previous violation of tribute is a major issue and the suspension of the market now is a minor issue.

Here we can see that the Qing held a deep distrust of Chosŏn for some time and was sensitive about the rituals surrounding an event in 1672. Kangxi further apportioned blame to Chosŏn but explained, ‘the management of foreign countries cannot be too strict nor too lenient. The Chosŏn people are naturally cunning. If we permit them their request, they may not be careful in the future.’ Because ‘Chosŏn is a small vassal state and can be forgiven once,’ the Qing emperor ordered the Ministry of Rites to claim 10,000 *taels* of silver as a penalty but said that trade should continue as usual.¹⁰⁰ In other words, the Qing saw everything in the political context of the traditional Sino-Chosŏn tributary relations: the request to cancel the king’s reception of the Qing envoys due to unease over smallpox outbreaks and a suspension of the cattle trade because of rinderpest outbreaks—everything was suspicious. . The Qing in the 1680s were sensitive to challenges and were concerned that Chosŏn Korea was a vassal state with hidden intentions to rebel against imperial orders.

Despite the chaotic and violent state of the early years of the Qing empire, Chosŏn never dared to launch a revolt in the face of the increasing power of the Qing. Ministers at the Chosŏn court differed in their opinions about the best course of action vis-à-vis the Qing throughout the seventeenth century, with some advocating the pursuit of peace, while others promoted a policy of ‘attack the North’ (*pukpŏllon* 北伐論), meaning to attack the Qing. The Chosŏn Kings chafed at bending the knee to a people long considered merely a barbarian tribe in the north and were also reluctant to send tribute to the Qing empire. King Injo felt insulted by the Manchu Invasion of Korea in 1636 and King Hyojong endured humiliation as a hostage during his stay in Shenyang. That experience left him with negative impressions of the Qing empire. However, they obeyed the diplomatic rituals required of them by the Qing, due to practical considerations that went beyond fear of another invasion. For example, the Korean peninsula was continuously afflicted with famines during the seventeenth century, and

¹⁰⁰ *Qingshilu* 清實錄 (Veritable records of Qing). Kangxi24. 1685.6.25. 禮部題、朝鮮國王李焯奏言、國內牛多疫死、民失耕種、請暫停互市。李焯託言妄奏、不合、應令回奏、到日再議。上問扈從兵部侍郎佛倫等曰、爾等云何。佛倫等奏曰、康熙十一年、朝鮮貢物與例不合、曾令其國王回奏。奉旨寬免。臣等思前此進貢違例事大。今請停互市事小。應如部議、俟回奏到日、皇上再行寬免。上曰、撫馭外國之道。不可太嚴、亦不可太寬。朝鮮之人、職性狡詐。若遂如所請、此後未必不玩忽。其命禮部另議。尋部議、李焯應罰銀一萬兩。得旨、此事本當如議。但係外藩小國、姑宥此一次。仍令照常貿易

when the great famines struck, Chosŏn had to request aid from the Qing to overcome crop shortages.¹⁰¹ King Hyŏnjong was also cautious in addressing relations with the Qing empire and held a neutral attitude towards relations with the Qing.¹⁰² King Sukjong did not launch any challenges, because he assumed the throne at a young age in 1674, and Korean domestic politics endured some years of instability after his enthronement. Suppression of the Revolt of the Three Feudatories eventually determined the boundaries of Qing imperial territory and dashed any lingering dream in Chosŏn of ‘attacking the North.’

In such a chaotic international environment and with limited information on Chosŏn domestic politics, the Qing emperor Kangxi was very sensitive to any changes in foreign relations, and he misunderstood the Chosŏn king’s absence at the diplomatic rituals and the Korean king’s requests to suspend the cattle market in the 1680s. Both of these requests were attributed by the Koreans to the outbreaks of either smallpox or rinderpest, though the Qing court mistook them as excuses and tricks. However, when the Qing achieved final unification in the 1690s, the Kangxi emperor changed his attitude and policies towards Chosŏn. In 1693, he even praised Chosŏn and especially King Sukjong for his loyalty in not rebelling at the time of the Revolt of the Three Feudatories in the 1680s.¹⁰³ It is clear that there was a difference in attitude between the time before and after the suppression of the Chinese revolts. If we take a long-term view of Sino-Chosŏn relations, we can see contextual determinants or epidemiological factors that created disputes surrounding the ‘abnormal’ behaviour of the Chosŏn king. The ‘normal’ efforts of Chosŏn to follow rituals and to minimize side-effects caused by smallpox are also apparent. The Koreans tried their best, but they were constrained by the variola virus.

Conclusions

The Korean routine of sending tributary emissaries to Beijing and receiving imperial envoys in Chosŏn were essential for the Qing empire to enhance its suzerainty and confirm Chosŏn’s loyalty. Within such a well-established framework of Sino-Chosŏn relations, any kind of violation of the defined rituals by Chosŏn kings would be

¹⁰¹ Kim Moonkee, ‘17 segi Chungguk kwa Chosŏn ūi kikŭn kwa kukche chŏk kongmul yut’ong’, 348.

¹⁰² Sun Weiguo 孙卫国, *Daming qihao yu xiaozhonghua yishi* 大明旗号与小中华意识 (Beijing: Shangwu yinshuguan 商务印书馆, 2007), 375–400.

¹⁰³ Wang, *Remaking the Chinese Empire*, 105; Sun, *Daming qihao yu xiaozhonghua yishi*, 384.

likely to be considered as ‘abnormal’ behaviour at best, or evidence of an intention to revolt at worse.

Rather than taking the Qing point of view and interpreting the Chosŏn king’s absence at expected rituals as ‘abnormal,’ I argue that our understanding of Sino-Chosŏn relations requires consideration of the actual conditions in Chosŏn at the time, including the continuous epidemics and the attitude of the Chosŏn government towards these outbreaks. Based on the statistics gained from various primary sources we can see that smallpox struck the Korean peninsula throughout the seventeenth century, while anxiety towards smallpox in Chosŏn was no less than that which scholars have noted for the Qing empire. The health of King Sukjong, especially before his infection with smallpox when he was vulnerable, thus became a major concern in Chosŏn domestic and diplomatic activities. Health concerns explain why King Sukjong had a good record of attendance at the suburban greetings of the imperial envoys and at the receptions in the main hall after his recovery from smallpox. Moreover, Chosŏn’s attempts to treat the smallpox-infected Qing envoy in 1655 and to make some compensations towards the imperial envoy in view of the king’s absence, suggest that the Chosŏn government were in fact concerned about preserving the rituals and reluctant to cause the dissatisfaction of the Qing emperors. Chosŏn was not attempting to downplay their allegiance to the Qing because the Kangxi Emperor was suspicious at first, as some scholars have suggested. Realistically, the Chosŏn kings had to keep the peace with the Qing empire despite Korean prejudices against the Qing’s barbarian culture and internal debates over an ‘attack the north policy.’ In other words, Chosŏn’s concerns about smallpox were not mere excuses but, rather, were genuine concerns about the epidemics, which they tried to mitigate both at a medical and a diplomatic level.

Table 11 Attendance of King Sukjong at diplomatic rituals

Year	Chosŏn King	Purpose	Suburban greeting	Meeting place	King's attendance at a tea ceremony	Farewell	Stay	Reasons
1674	Throne	Conferral of a noble rank on Qing empress	Ministers	Main shrine	-	Ministers	12	
1675	Sukjong 1	King investiture; A sacrifice offered to the deceased king	King	Main shrine	twice tea ceremony with king and ministers	Ministers	13	
1676.2	Sukjong 2	Qing prince investiture	Ministers	Main shrine	twice tea ceremony with king and ministers	Ministers	12	smallpox
1676.3	Sukjong 2	Conferral of a noble rank on Qing empress dowager	King	Main shrine	twice tea ceremony with king and ministers	Ministers	12	smallpox
1677.10	Sukjong 3	Qing empress investiture	king	Main shrine	ministers alternate tea ceremony	King	10	smallpox
1678.3	Sukjong 4	Notice of the empress death	Ministers	side shrine	ministers alternate tea ceremony	Ministers	4	sickness
1678.5	Sukjong 4	Conferral of a noble rank on Qing empress	Ministers	Main shrine	ministers alternate tea ceremony	Ministers	8	sickness
1679.2	Sukjong 5	Qing prince recovery from sickness	Ministers	Main shrine	twice tea ceremony with king and ministers	Ministers	6	smallpox
1680.2	Sukjong 6	Investigation (restoration after a fire)	Ministers	Main shrine	-	Ministers	7	smallpox
1680.8	Sukjong 6	Investigation (crossing-border movements)	King	Main shrine	twice tea ceremony with king and ministers	King	9	
1680.10	Sukjong 6	Investigation (comfort on the revolts)	Ministers	side shrine	ministers alternate tea ceremony	Ministers	8	epidemics
1681.4	Sukjong 7	Conferral of a noble rank on queen consort	King	Main shrine	ministers alternate tea ceremony	Ministers	7	smallpox
1682.2	Sukjong 8	Investigation (rehabilitation)	King	Main shrine	ministers alternate tea ceremony	Ministers	7	-
1682.3	Sukjong 8	Conferral of a noble rank on Qing empress dowager	King	Main shrine	ministers alternate tea ceremony and envoys were sick	Ministers	9	sickness and smallpox
1682.7	Sukjong 8	Chosŏn queen consort investiture	King	Main shrine	king	-	7	smallpox
1684.7	Sukjong 10	A sacrifice offered to Queen consort	King	Main shrine	twice tea ceremony with king and minister	King	7	
1684.12	Sukjong 10	Investigation	Ministers	side shrine	ministers alternate tea ceremony and envoys were sick	Ministers	7	sickness
1685.12	Sukjong 11	Investigation (crossing-border movements)	Ministers	side shrine	twice tea ceremony with king and minister	Ministers	11	sickness

Conclusions

After the Imjin War, the Chosŏn state faced various challenges, including relieving the afflictions of war, extreme climatic conditions, crop failure, famine, and epidemics; there was a need to secure the existing social order as well as restore the national economy.¹ These tasks, however, were interconnected and further complicated by each other. This dissertation has paid special attention to one specific challenge – epidemics throughout the late sixteenth and early eighteenth centuries – and has shown how the Chosŏn state endeavoured to mitigate the ravages of outbreaks.

Existing scholarship on the pre-modern history of Korean epidemics in the seventeenth and eighteenth centuries is rare, with scholars tending to simply attribute outbreaks in the seventeenth century to the abnormal natural phenomena of the ‘Little Ice Age’ or concentrate on the establishment of medical institutes in the early Chosŏn dynasty and the transformation of the modern medical system in the late nineteenth and early twentieth centuries. The intervening gap is probably due to the complexities of discussing the unsystematic measures that were adopted against epidemics in the post-Imjin period. The unsystematic nature of the government’s responses mean it is difficult to apply research on the earlier medical system to the study of the management of epidemics during the later Chosŏn dynasty. There is also the challenge of incorporating into our understanding of post-Imjin epidemics other diverse factors beyond the history of medicine, such as environment, climate, and the effects of war.

Both the historical record and modern historiography provide hints as to how to address the difficult task of understanding epidemic outbreaks from late sixteenth to early eighteenth-century Korea. As shown at the very beginning of this dissertation, the Chosŏn scholar Yi Wŏnjŏng recorded his reflections on severe epidemics around 1671 and suggested that Chosŏn society entered an abnormal state of affairs after being struck by these outbreaks, which required extraordinary policies for epidemic management. In his discussion of Chinese state transformation, R. Bin Wong has suggested focusing on the state’s concrete capacities to accomplish particular tasks, rather than applying supposedly ‘universal’ criteria to measure state performance.² Both of these scholars,

¹ Anders Karlsson, ‘Famine Relief, Social Order, and State Performance in Late Chosŏn Korea’, *The Journal of Korean Studies* 12, no. 1 (2007): 114.

² R. Bin Wong, *China Transformed: Historical Change and the Limits of European Experience* (Ithaca: Cornell University Press, 1997), 283.

separated by over three centuries, emphasize the necessity of specific and ‘extraordinary’ measures against the challenges posed by epidemics. Indeed, the Chosŏn government’s ad hoc responses to post-Imjin epidemics – the reconstruction of medical institutes, the assembling of physicians, and the compiling of medical booklets – formed the primary contents of medical administrative measures against epidemics for the early seventeenth century. Through the lens of epidemic outbreaks, this study further discovers that other early attempts--the temporary release of sick prisoners, the isolation of infected and displaced people, and the use of alternative rituals during diplomatic exchanges—functioned as supplementary approaches to improve relief and mitigate infection. These attempts were also taken in collaboration with local administration and private individuals who also gradually engaged in medical care in the late seventeenth century.

My approach has been to integrate quantitative and qualitative analysis to view the history of epidemics. Chapter 1 presents temporal and spatial patterns of pre-modern Korean epidemic outbreaks through comparisons and analysis of four types of accessible Chosŏn official documents. These documents show that, from the Imjin War until 1720, the Korean peninsula was continually ravaged by outbreaks. The northern border, particularly Hamgyŏng province, was most frequently struck. Epidemics near the capital also appeared rampant, although this probably reflects a focus on the capital in the historical documents. The implications of the geographical spread of outbreaks are discussed in the case study contained in Chapter 3, with the conclusion that the northern provinces tended to be the origin of epidemic outbreaks in the early seventeenth century. Displaced people, who fled from the north, carried the virus to the national capital, and from there outbreaks were easily transmitted nationwide.

Having examined the sources for this research in Chapter 1, each of the five case studies (Chapters 2-6) examines a specific example of ‘relieving the infected,’ and together display a common theme underlying the social history of Korean epidemics: mortality rates are used to describe and summarize outbreaks, but these obscured the sufferings of ordinary people caused by infectious diseases, most of whom did not leave any voice in history. Therefore, five case studies testify together how the outbreaks impacted infected people, ranging from soldiers during the Imjin War, displaced people from the north, prisoners in the central prisons, Qing envoys, and Chosŏn royal family members in the palace; as well as what caused outbreaks and how the Chosŏn government addressed the chaos caused by the epidemics in each specific situation.

It is clear that outbreaks were intertwined with environmental factors and human activities. Chapter 2 delineates how, during the Imjin War, soldiers from the three combatant countries and their draft animals, especially horses, could not bear the extreme cold and rainy winter days, continuous battles, and long-term starvation, and so they did not survive the nationwide epidemic in the first few months of 1593. I argue that this in turn affected the course of the war, as the Ming generals and the Japanese daimyos were forced to negotiate in the face of their inability to fight. As mentioned above, Chapter 3 notes that the post-Imjin War environmental deterioration in tandem with successive regional conflicts further exacerbated the living environment of North Hamgyŏng province. Displaced people who could not harvest their grain took flight to the national capital and southern areas, and along their path of movement, epidemic outbreaks were transmitted quickly nationwide in the 1610s. As shown in Chapter 4, the living conditions of Chosŏn prisons were overcrowded, unsanitary, subject to extreme coldness and heat, and prisoners could not acquire sufficient food, thereby leading to continuous outbreaks of disease. Therefore, this study asserts that factors to do with living environment, such as wars, sufficient arable land, and sanitary prisons, were also hugely important in the case of Korea.

Regarding epidemic management, existing scholarship has concentrated on medical institutes or ‘universal’ practices, but has neglected what I identify as the Chosŏn state’s ‘unsystematic’ policies. Therefore, this study argues that pre-modern Korean initiatives against epidemic outbreaks, albeit low-tech or unsystematic, have their value in the long history of epidemic management; and the sporadic and gradual procedure of implementation and legitimation of some practices provide experiences for later generations in the Chosŏn dynasty. Chapter 4 shows that the temporary release of infected prisoners was a practice that had long been implemented and adjusted throughout the seventeenth century but in the absence of legislation. It was finally formalized by law in the mid-eighteenth century. Chapter 5 shows how local administrators also participated in and shared medical care and relief responsibilities from the second half of the seventeenth century onwards, because the central medical institutes – Hwarinsŏ in the eastern and western outskirts of the capital – were unable to contain enough patients. Private tents were erected outside the capital to shelter infected people, and displaced people were banished to islands because of their potential as virus carriers. Various versions of these quarantine practices appeared from time to time in the late Chosŏn dynasty, but the formalization of quarantine by regulations awaited the

modern era. These practices, what I have called ‘epidemic relief administration’, continued to function in the subsequent centuries under the supervision of the Chosŏn government and with the participation of individuals.

Lastly, Chapter 5 considers the ways in which epidemic outbreaks impacted not only domestic activities but also foreign relations with the Qing empire, multiplying the challenges for the Chosŏn court. The absence of Korean kings or princes at diplomatic rituals breached the propriety that the Qing empire demanded when Chosŏn welcomed its envoys at the suburbs of the capital and further provoked diplomatic misunderstandings. The Chosŏn government carefully treated the infected Qing envoy and asked for permission to change the rituals that were used to greet the Qing envoys, in order to minimize the impacts of smallpox on Sino-Chosŏn relations. By looking at the smallpox panic in the Korean court, I argue that the Koreans were not trying to shirk their responsibilities towards their suzerain, that the ‘abnormal’ changes in protocol were genuine, but that the Kangxi Emperor was suspicious at first, because of the domestic rebellion he was then suppressing. Like all the cases, we have to consider the consequences of epidemic outbreaks in shaping events.

These pre-modern practices of epidemic management also expose social injustice and discrimination against infected people, which worsened during outbreaks in Chosŏn society. Even though outbreaks such as smallpox affected all levels of society and even members of the royal family died of the disease, those with higher social status still had the privilege of superior medical treatment. In contrast, non-elites were the most vulnerable and had limited access to medical attention and medicines. They were not only vulnerable due to their status, but also because they were labelled potential virus carriers and seen as an increasingly volatile sector of society. The fear of volatility by elites explains how the panic over outbreaks and fear of society falling into disorder eventually drove the ruling class to monitor, exile, or quarantine the infected poor, or those who had potentially been infected. The discrimination also had broad implications for the ‘unsystematic’ and even contradictory state approaches regarding displaced people from the north. They were forced to return home when the state needed them to secure the borderland, but during times of outbreaks they were required to stay wherever they had fled. They were also rounded up and sent to isolated islands when epidemic outbreaks were rampant at the national capital, where they were eventually abandoned when no more relief food was available. Thus, the displaced poor were mobilized by state power and the subjugation and objectification of their infected

bodies were indicators of state attitudes towards epidemic management.

Such practices were, however, framed by the state within a Confucian discourse of benevolence or relief, obscuring the ways in which epidemic relief operated as a mechanism of power to dominate the populace. Contradictions between the discourse of benevolence and the treatment of individuals also appeared in the management of prison epidemics. The casual imprisonment of people who were ill, the temporary release of sick prisoners when illness in the prison became too much to manage, and the fact that prisoners who had been accused of revolts against the king were never released even during epidemics all indicate that the core of epidemic management lay in politics and the control of those bodies who represented threats to the social order. In this way, Chosŏn Korean approaches to epidemic management exhibit many features in common with ‘biopolitics’, which Michel Foucault coined to denote the power of the modern state over all aspects of human life.³

From the late-sixteenth to the mid-eighteenth century, Korea, which had been a model of medical administration centred on state-designated medical institutions responsible for medicine allocation, physician dispatch, and pharmacological compilation gradually lost its commanding efficacy. All-encompassing difficulties caused by wars, continuous famines, and outbreaks exhausted the Chosŏn court’s finances for medical care. Instead, primary relief measures, such as offering congee or other foods were less costly and not as logistically complex. Moreover, these measures directly embodied more symbolic meanings of Confucian benevolence. To fill the medical gap left by the state, in the second half of the seventeenth century, alternatives appeared. Local administrators and private actors emerged, including individual entrepreneurs, who erected quarantine tents; local administrators and residents on Yul-do island appeared, who received and even adopted displaced children and young labours as their own, and the numbers of local physicians and pharmaceuticals increased, perhaps motivated by charities, official bonuses or diversity in lifestyle, and the increasing commodification of medicine.⁴ The appearance of local and private efforts marked the transition of the responsibilities for medical care in pre-modern Korea from

³ Michel Foucault, *The Birth of Biopolitics: Lectures at the Collège de France, 1978–1979*. New York: Picador, 2010. Michel Foucault, *Security, Territory, Population: Lectures at the Collège de France 1977–1978* (St Martins Press, 2007).

⁴ The collaboration of the Chosŏn state and multiple participants in medical care is similar to a “brokered state” in the management of resources such as grain and timber. See John S Lee. “The rise of the brokered state: Situating administrative expansion in Chosŏn Korea,” *Seoul Journal of Korean Studies* 32:1 (2019): 81-108.

the central government to multiple and combined participants, bearing broad meanings for joint efforts in the history of epidemic management.

The findings of this dissertation have significance beyond the late sixteenth to early eighteenth centuries of Korea. Placing pre-modern Korean epidemics within environmental history exposes the interactive connections among wars, the natural environment, living conditions, and infectious diseases, shedding new light on the environmental upheaval in the seventeenth-century world. Moreover, the case studies collected in this dissertation – wartime epidemics, environmental immigrants, epidemics spread in prisons, quarantine restrictions, and diplomatic rituals during outbreaks – have echoes that are relevant to contemporary society. Narratives of epidemic management provide a meeting point among social justice, governmentality, diplomacy, and medicine, opening up questions of power and its political meaning in health discourses that have strong resonance today.

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