

A UNIVERSAL APPROACH TO PLAGUE EPIDEMICS IN FIFTEENTH CENTURY
MAMLUK EGYPT AND SYRIA: CONTEMPORARY BIAS, CLASSICAL
ISLAMIC MEDICINE, AND THE VOICES OF THE ULAMA

by

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ABSTRACT

Arabic historical narratives from fifteenth century Egypt allow a holistic exploration of the parallels and dichotomies inherent in debates regarding plague epidemics and etiology, classical Islamic medicine, and the fluid and yet precarious societal position of the ulama as historians of these epidemics. In a tenuous relationship, the ulama were bound not only to the sultan and his key associates for their livelihood, but also to the general population, over whom they exerted influence. Plague epidemics were recorded in the scholars' narratives, reflecting the narrative voice of the ulama, their varying social networks, the context in which they acted, and the literary traditions of the period.

Previous research concerning plague epidemics in Mamluk Egypt has too narrowly focused on a so-called rigid religious orthodoxy, and the rise and decline of the Golden Age of Islam paradigm. However, classical scholars were a loosely formed, but dynamic group of individuals from various walks of life who interpreted their society, and through their written narratives, asserted their independence. These authors worked during difficult times to record plague epidemics and relate events critical for their understanding of Islamic Tradition, classical medicine and people's fear, misery and hope. Previous research has incorrectly portrayed these historical narratives as static and repetitive, confined by both Mamluk patronage and an undefined "Islam."

This dissertation seeks to explore the conundrum that is the Black Death, and ensuing plague epidemics in the Mamluk period. Descriptions of the interweaving of classical medical practices, the science and understanding of plague in the 21st century, and the multifaceted ulama networks and the narrative agency of the ulama are the pieces of this puzzle. The narratives, vis-à-vis plague epidemics, are varied and layered, and the content depends to a great extent on the social background of the author and the environmental context in which he wrote. This conundrum holds no single solution; however, a universal exploration of its various components allows a greater understanding of the social environment in Mamluk Egypt during these difficult periods, while simultaneously mirroring the difficulties that modern historians of medicine often face in research on historical plague epidemics.

Dedicated to my husband, Josh, my children, Annika and Zach, my mother, Patricia and my late father, John. Thanks for the support and encouragement.

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NOTES ON ROMANIZATION, TERMINOLOGY, AND DATE

Arabic terms commonly used in English such as caliph, Quran, and imam are formatted without italics or diacritics. For well-known place names, regions, and dynasties, diacritics are also omitted: Cairo, Damascus, ‘Abbasids, and Mamluks. Proper nouns are not italicized and diacritics are used only in the first instance of introduction; with subsequent usage, diacritics are omitted for readability: initially Abū al-Maḥāsin Yūsuf Ibn Taghrībirdī, and then ibn Taghribirdi. Latin terms are italicized and Romanization follows the IJMES Translation and Transliteration Guide (<http://web.gc.cuny.edu/ijmes/pages/transliteration.html>) except for tā’ marbūṭah, displayed as ah, and ‘ayn displayed as (‘) and hamza as (’). For well-known terms such as ulama, hadith or Mamluk, the Arabic term, whether singular or plural will be used with a final s added for the plural. As an example, the more popular hadith/hadiths (not hadith/ahadith) and Mamluk/Mamluks not Mamluk/mamālīk) and for the classical period, the Hijri date is presented, followed by the Gregorian date.

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CHAPTER 1

INTRODUCTION

Issues Raised

In the last century, research on the Black Death¹ and subsequent plague epidemics² in late classical Egypt has focused on the repetitive and almost uniform nature of many of the historical narratives describing these catastrophic events. The ulama (sing. *ālim*), as the authors of these narratives, are lumped into one static group and described as adhering to a rigid religious orthodoxy, evident in their descriptions of the Black Death and subsequent plague epidemics, or echo epidemics. The inference is that these authors were mired in the so-called intellectual stagnation of the later Circassian (1382-1517) Mamluk period and its military patronage, and “the authors’ close reliance on previous historic narratives, which they supposedly merely reproduced in more or less

¹ The irreconcilable debates as to whether the Black Death was different clinical manifestations of plague, a perfect storm of plague and other diseases, all spurred by environmental upheavals is explored in the next chapter. In the fourteenth and fifteenth century Mamluk historical narratives plague is referred to as *ta’ūn* and the more general pestilence or epidemic is called *wabā’*. This dissertation will use this terminology in translation from Arabic to English and focus on epidemics where the authors use the term *ta’ūn*. See Conrad’s “Ta’ūn and Wabā’: Conceptions of Plague and Pestilence in Early Islam,” *Journal of the Economic and Social History of Orient*, 25, no. 3 (1982). The term “Black Death,” originally coined in Elizabeth Penrose’s *History of England* (p. 139) is seen in accounts of plague outbreaks in Iceland in 1402-1403 and in sixteenth and seventeenth century Danish and Swedish chronicles with regard to plague epidemics. Despite it never being used in fourteenth and fifteenth century Islamic historical narratives to describe the mid-fourteenth century epidemic, it is a well-known term and will be used in this paper with specific reference to the infamous plague epidemic of 1348-1353.

² “A pandemic is a large-scale epidemic. In an epidemic, a disease is confined to certain locations, such as cities or regions. In a pandemic, people are afflicted with a disease over entire countries or continents. Given time, a pandemic can circle the globe. After an initial outbreak that lasts several years, the disease virtually disappears, only to break out in periodic epidemics in the following years. This cycle can be repeated for decades or even centuries before the disease disappears completely.” FAQs.org, Black Death Pandemics, <http://www.faqs.org/health/topics/57/Black-death-pandemics.html> (Accessed Dec. 3, 2012).

elaborate ways.”³ Conrad Hirschler uses Rosenthal’s 1968 epic *A History of Muslim Historiography* as an example of narrative stasis, linking all classical Islamic historical narratives back to the Rise of Islam and the Golden Age of the civilization beginning in the mid-eighth century.⁴

Due to this assumption that each later phenomena can be explained by the genre’s inherent origins or genealogy, he (Rosenthal) traces the texts back to their origins in the Rise and Golden Age of the civilization and considers them to be quasi-independent of later developments within society...The early Islamic concepts of this genre [history writing], not its respective contexts, were the determinants for most of its later developments. Rosenthal’s concept of time is not one of change, but one of endless repetition. Within this analytic framework, the only possible major development is the genre’s decay parallel to the general decline of the civilization.⁵

The derided or sentimentalized “other” of modernity is evident in much of this past research that links the so-called rigidity of the Islamic religious sciences and the unchanging and repetitive nature of these historical narratives produced by religious practitioners. The ulama are *a priori* understood to have no narrative agency within the context of the histories and chronologies they produced. With regard to catastrophic outbreaks of disease, the ulama are lumped together as one monolithic group generally recommending prayer and patience in the face of these bewildering epidemics.⁶ The idea of a passive Islamic culture and society facing disastrous events is juxtaposed with that of

³ Conrad Hirschler, *Classical Arabic Historiography, Authors as Actors* (New York: Routledge, 2006), 2.

⁴ By the mid-ninth century, the ‘Abbasid caliphate was weakening and the Shi’a Buyids had established rule in western Iran and Iraq from the mid-tenth to the mid-eleventh century before the invasion of the Seljuks. This group, a branch of the Oghuz Turks, established a dynasty in Baghdad in the eleventh century as guardians of the weakened ‘Abbasid caliphate. The Seljuks ruled over Iran, Iraq and Syria, maintained Sunni Islam as the dominant faith in the face of the Egyptian Shi’a Fatimids, and prevented the expansion of the crusader states along the Syrian coast in the mid-twelfth century, accessed February 26, 2013, <http://www.themiddleages.net/people/seljuks.html>, and <http://www.iranicaonline.org/articles/buyids>.

⁵ Hirschler, *Classical Arabic Historiography*, 2. The author suggests using the term Formative Period of Islam, with the implication of an ongoing process, rather than Golden Age, which is tied to the idea of a subsequent decline. x.

⁶ See in particular Michael Dols, *The Black Death, in the Middle East*, (New Jersey: Princeton University, 1977) 284-293 and also “The Second Plague Pandemic and Its Recurrences in the Middle East: 1347-1894,” *Journal of the Social and Economic History of the Orient*, 22, no. 2 (May, 1979): 178, 180.

the supposed earlier Golden Age of Islam.⁷

These narratives vis-à-vis plague epidemics actually demonstrate the complexities and confusion of the time with regard to catastrophic epidemics, and this confusion mirrors similar perplexities and dichotomies within current discussions of plague etiology, dissemination rate, and mortality. These historic narratives also reflect the authors' social background and the information they considered vital in describing the epidemics in their writings. Wide-ranging theoretical and practical medical approaches to plague in the Mamluk period also reflect the similar medical approaches across the spectrum of classical Islamic medicine including Greek medical theories, Prophetic Medicine and healing through magic. All of these components must be included in a holistic approach to the Black Death, plague epidemics and the historical narratives in the later Mamluk period.

Literature Review

In 1946, David Ayalon explored three factors as related to the decline of the Mamluk army that culminated in the Ottoman Conquest in 1516-1517 of Syria and Egypt. These factors included repeated plague outbreaks, corruption within the army and the “predatory economic system of the Mamluk.”⁸ In 1962, Gaston Wiet translated a section of Ibn Taghribirdī's (d.1453) *al-Nujūm al-zhirah fī mulūk miṣr wa-al-qāhirah* (*The Shining Stars in the Rulers of Egypt and Syria*), exploring the three plague precepts. These three precepts, pulled from Islamic Tradition (hadith) include the denial of

⁷ Also see Bernard Lewis, *What Went Wrong: Western Impact and Middle East Response* (NY: Oxford University Press, 2002) in which the author uses broad brushstrokes to paint a picture of continuous decline in an undefined “Islamic World” from the Mongol sacking of Baghdad in 1258 to the present.

⁸ David Neustadt Ayalon, “The Plague and its Effects Upon the Mamluk Army,” *Journal of the Asiatic Society of Great Britain and Ireland*, no. 1 (April, 1946): 67, 67-73.

contagion,⁹ the prohibition of flight from or entry into a plague-infected area, and the argument that a Muslim plague death results in martyrdom, but death from plague for a nonbeliever is a punishment.¹⁰

Jacqueline Sublet examined the aforementioned precepts in detail as presented by Ibn Ḥajar al-‘Asqalānī (d. 1449) in his important tract, *Badhl al-mā‘ūn fī fadl al-ṭā‘ūn*, (*Offering Small Kindnesses on the Virtue of the Plague*). She notes the particular difficulties and complexities with the third precept regarding Muslim martyrdom versus non-Muslim punishment. Indirectly, nonbelievers are responsible for God bringing plague to the earth as a punishment. Therefore, Muslims dying from plague are martyrs because they are metaphorical warriors in the holy war against the infidel. Then, is it acceptable for a Muslim to pray for the plague to be lifted and to escape an honorable death that ensures entry into paradise?¹¹

Michael Dols’ extensive work on plague in Mamluk Egypt and Syria presents a detailed chronology and information on the geographic distribution of the Black Death and subsequent epidemics, with detailed appendices on terminology and plague treatises

⁹ Manfred Ullman notes the endless debate regarding the principle of no contagion (*lā ‘adwā*). He maintains that the statement “*lā ‘adwā wa lā ṭiyarah wa lā hāmah wa lā ṣafar*,” “(There is) no ‘Adwa’ (no contagious disease)[conveyed without Allah’s permission] nor is there any tiyara (bad omen), nor is there any hamah (probably the owl), nor is there any bad omen in the month of Safar,” as a principle originally targeting heathen divination still in use during Muhammad’s life. The theological discussion “has taken it completely out of context and deduced the dogma that according to the prophet’s teachings there is no infection.” He advocates the use of the term transmissibility due to the lack of distinction between the concept of contagion (spread from one person or organism to another, generally via direct contact), and infection (spread through the environment, caused by infectious agents but not passed directly between people, bubonic plague is infectious but pneumonic plague is contagious) *Islamic Surveys*, Edinburgh: Edinburgh University Press, 1978, p. 87. See Islam Q and A <http://islamqa.info/en/ref/45694> for various translations/interpretations of this hadith and also Volume 7, Book 71, Number 608, accessed Dec. 20, 2012, <http://forums.understanding-islam.com/archive/index.php/t-9820.html> and 5425, <http://www.sunnipath.com/library/Hadith/H0002P0079.aspx>, Book of Medicine, The Sahih Collection of al-Bukhari, SunniPath (accessed Dec. 20, 2012)

¹⁰ Gaston Wiet, trans., “La Grande peste noire en Syrie et en Égypte,” *Études d’orientalisme dédiées à la mémoire de Lévi-Provençal*, vol. 1 (Paris, 1962), 367-384.

¹¹ Jacqueline Sublet, “La Peste prise aux rêts de la jurisprudence: Le Traité d’Ibn Ḥaġar al-‘Asqalānī sur la peste.” *Studia Islamica* 33 (1971): 145-6.

linked to specific outbreaks and locations. The author focuses extensively on the so-called three plague precepts and relates them to what he calls the passive reaction of most Muslims to plague epidemics. Dols explored numerous historical narratives, and yet he distills the authors (the ulama) into one monolithic group, all supposedly urging a generalized passive behavior for the population. The author's conclusion is surprising: "the deterministic view is most consistent with the historical accounts and represents the consensus of the jurists and popular attitudes."¹²

In another paper Dols argues that plague was never endemic to the Middle East, but served as a conduit for the disease passing to other regions. The endemic foci for plague during the classical period as proposed by Dols are central and western Arabia, western Asia (Kurdistan), central Africa and northwestern India. Egypt, a crossroads for the endemic foci plague, often served as a conduit for plague to travel from the ports of Constantinople to Alexandria, from Africa to Sudan to Egypt, and then on to Syria-Palestine and western Arabia due to heavy pilgrim traffic from these areas. Dols once again presents an undefined "Islam," represented by a generalized and unchanging ulama, as the determining factor in generalized reactions to these outbreaks: "I have suggested elsewhere that the apparently pacific, collective, and controlled Muslim reaction to the

¹² Dols, *The Black Death in the Middle East* (New Jersey: Princeton University, 1977) 99, 291. Dols also presents Andalusian physician and statesman Ibn al-Khatib as the lone Islamic rationalist among fatalists due to his clinical observations of contagion. Jason Stearns responds, "in the historiography on the plague, the Andalusian plague treatises written in the eighth/fourteenth century – and specifically those of Ibn al-Khatib and Ibn Khātima – have been consistently praised as scientific, rational and (therefore) as exceptions to the generally oppressive religious orthodoxy of the late Classical period." "Infectious Ideas: Contagion in Classical Islamic and Christian Thought" (Ph.D. diss. Princeton University, 2008), 211. Also see Marie-Hélène Congourdeau and Mohamed Melhaoui who present Ibn al-Khatib as a lone voice of reason among the Muslim physicians in a period of decline, "La perception de la peste en pays Chrétien Byzantine et musulman," *Revue des études byzantines*, 59 (2001): 95-124, 110. Noga Arikha argues that while Ibn al-Khatib's recognition of infection is held up as his special achievement, his suggestion to interpret the "no contagion" principle allegorically was not novel. *Passions and Tempers, A History of the Humors*, (New York: Harper Collins, 2007) 95.

Black Death was primarily the result of religious beliefs. This appears to be true up to the twentieth century...”¹³

The exception in research on the plague epidemics as presented in historical Muslim narratives is Lawrence Conrad in his “Chronologies and Treatises: Social and Historical Factors in the Formation of a Literary Genre.” He explores the earliest plague epidemics (68/688-750/1350) in the Islamic world as presented by Ibn Abī Ḥajala (725/1325-776/1375). Conrad emphasizes that his exploration of one work by Ibn Abi Hajala is only “one kind of transmission of only one kind of material to only one author’s work.”¹⁴ Conrad avoids generalizations regarding the ulama as authors and their accounts of plague epidemics, allowing the narrative agency of Ibn Abi Hajala to shine: “From our vantage point in the totally different world of modern times, it is a hazardous and difficult task to elicit from the literary sources the relationship between individuals and their classical milieu, an environment in which awe of the marvelous and a sense of human impotence before great incomprehensible forces were both highly developed, and in which a sense of the impossible was accordingly strictly limited.”¹⁵

Conrad also differentiates between the more orthodox religious sciences as represented by many of the ulama, and the magical beliefs of the general population who continued to visit popular tombs, in addition to participating in the ritualistic processions into the desert led by the sultan and the ulama: “These saints, graves, and related wondrous tales of ominous portent were particularly popular among the common folk, who derived little or no sense of spiritual satisfaction from the theological complexities

¹³ Michael Dols, “The Second Plague Pandemic and Its Recurrences in the Middle East: 1347-1894,” *Journal of the Social and Economic History of the Orient*, 22, no. 2 (May, 1979): 178, 180.

¹⁴ Lawrence Conrad, “Arabic Plague Chronologies and Treatises: Social and Historical Factors in the Formation of Literary Genre,” *Studia Islamica* 54 (1984): 93.

¹⁵ *Ibid.* 92.

that busied their better educated co-religionists, and who were for the most part excluded by poverty from making the pilgrimage to Mecca.”¹⁶

In another paper, Conrad explores the use of the terms *tā'ūn* (plague) and *wabā'* (epidemic or pestilence) and notes the difficulties encountered by historians attempting to trace outbreaks of plague in the Islamic World. Often floods, famine and other epidemics such as typhus and smallpox, were lumped together under the term “epidemic.”¹⁷ Conrad also argues that the three plague precepts were offered more as *ta'ziya* (condolence), and advocates further exploration of the historical narratives and their authors. Delving “further into the questions of how these works (the historical narratives) developed and what criteria determined the selection of the materials they contain,” will create a better understanding of the impact of the disease.

This dissertation will seek to follow Conrad’s suggestion and use a holistic and inclusive approach to explore three historical narratives and their authors for a better understanding of the impact of plague epidemics in classical times and to elicit details regarding the authors’ agency and their networks. The ulama, within the context of their narratives of tragic events, were not one group of like-minded individuals advocating passive behavior for Muslims, dependent upon three vague hadiths regarding appropriate Muslim behavior during epidemics as suggested by Dols. Neither did they copy pre-existing histories without leaving their own indelible mark upon their works.¹⁸ Through their historical narratives these authors exerted their agency, “the ability of socially

¹⁶ Ibid. 89, 51- 93.

¹⁷ Lawrence Conrad, “Tā'ūn and Wabā' Conceptions of Plague and Pestilence in Early Islam,” *Journal of the Social and Economic History of the Orient* 25, no. 3 (1982): 268-307.

¹⁸ See Frédéric Bauden, for an interesting exploration of classical plagiarism. “Maqriziana IX: Should Maqrizi Be Thrown Out With the Bath Water? The Question of his Plagiarism of al-Awḥadī’s *Khiṭaṭ* and the Documentary Evidence,” *Mamluk Studies Review* XIV (2010): 159-232, accessed March 6, 2013, http://Mamluk.uchicago.edu/MSR_XIV_2010-Bauden-pp159-232.pdf.

embedded actors to appropriate, reproduce, and potentially, to innovate upon received cultural categories and conditions of action in accordance with their personal and collective ideals, interests, and commitments.”¹⁹

During three devastating plague outbreaks in the early fifteenth century, to what degree did the ulama as authors exert their agency vis-à-vis their historical narratives? What details can we discern regarding their networks and how does the massive volume of historical medical research on the Black Death itself influence interpretations of classical historical narratives? A holistic approach incorporating the authors’ social and textual environment, the classical and contemporary medical environment, and the learned traditions of the time, will shed light on the variations among these authors’ accounts. Why did one author choose to include details that another chose to exclude and what does this say about the author himself? This approach will also allow an in depth exploration of contemporary medical conundrums in studies of the Black Death and ensuing plague outbreaks, while also shedding light on the difficult environment facing the ulama who documented these events.

Summary of Chapters

This dissertation begins with an exploration of the diversity of past and present approaches to the medical, biological and environmental explanations for the Black Death and subsequent epidemics. Debates continue to this day; what exactly was the mid-fourteenth century Black Death and ongoing epidemic cycles? Were they a form of bubonic plague that moved at lightening speed? Or a combination of infectious bubonic

¹⁹ Conrad Hirschler, *Classical Arabic Historiography, Authors as Actors* (London, NY: Routledge, 2006) x. This is the definition as used by Emirbayer/Goodwin in Hirschler.

plague and contagious²⁰ pneumonic plague, the perfect storm of a combination of plague and other diseases, or a biological disaster spurring conditions for a rare and massive epidemic? The first piece of the puzzle, exploring the Black Death and echo epidemics, demonstrates that there is no escape from bias in current scientific knowledge of all manifestations of plague with regard to historical epidemics. This scientific knowledge colors perceptions of any reading of classical historical accounts of plague epidemics. Before the advent of broad-spectrum antibiotics in the early twentieth century, the majority of plague victims died. The survivors possessed immunity, and medical treatments for plague up until 1932 were completely ineffective.

Classical medical practitioners used Greek-based humoral theory, Prophetic Medicine, and all possible forms of magic, in a variety of attempts to allay the suffering of plague victims. Many of these practitioners employed Greek humoral theory, Prophetic Medical treatments and magical treatments simultaneously during plague epidemics. The use of one medical approach did not necessarily preclude the use of another approach, because despite the different naming convention all treatments were essentially similar. Again, contemporary researchers cannot escape bias towards past medical descriptions and treatments as recorded in the narratives and histories; modern medical knowledge concerning the bacterial origin of plague colors perceptions of classical accounts.

The political, social and textual environment that the Mamluk ulama as authors navigated will then be examined. This study will demonstrate the precarious position of

²⁰ A contagious disease is spread to people or other organisms through direct or indirect contact while an infectious disease is transmitted to people or organisms via the environment. Infectious diseases are a broad term for diseases acquired from a pathogen. Contagious diseases are communicable person to person to animal to animal, usually but not always within the same species. Contagious diseases are infectious, but not all infectious diseases are contagious. Malaria is not contagious.

these scholars within Mamluk society as they sought to record and make sense of plague epidemics. The ulama, positioned in varying degrees between the general population that they served and their dependence on the whims of the ruling military elite for their livelihood, exerted their agency by determining which details would be documented. Using a combination of Margaret Somer's narrative identity approach and Conrad Hirschler's network approach, three authors' perceptions and agency vis-à-vis several major plague epidemics in the fifteenth century will be explored. How did the authors' constellation of social networks influence either the inclusion or exclusion of details in their historical narratives vis-à-vis plague epidemics? What does this say about the fluctuating state of the authors' lives at different times? How does the confusion reflected in the authors' chronicles mirror the miasma that is current medical research on the Black Death and echo epidemics?

CHAPTER 2

CONTEMPORARY BIAS: THE BLACK DEATH AND ECHO EPIDEMICS: *YERSINIA PESTIS* OR A PERFECT STORM OF DISEASES AND BIOLOGICAL DISASTER?

The Historiography of Epidemics and the Black Death

The rat's death is the bacteria's life...the human is simply a sideshow.²¹

All diseases have a pathological reality or a medical biological reality, and medical knowledge regarding disease is developed or constructed by those claiming expertise in the sciences. However, illness, as a social construction,²² has a cultural and experiential meaning that changes over time and place. Retrospective diagnoses of what the Black Death actually was, as a biological reality, face the difficulty of the 1894 fault line. The Third Plague Pandemic, starting in the 1860s and spreading to Hong Kong by 1894, diffused to port cities worldwide within twenty years, and caused ten million deaths. This disease, usually associated with rats, easily disseminated among small ground rodents in Asia, Africa and the Americas where it is currently endemic.²³ 1894 is

²¹ William Rosen, *Justinian's Flea: Plague, Empire and the Birth of Europe*, (New York: Viking, 2007) 189.

²² "There is a distinction between the medical notion of disease and the social constructionist concept of illness. For the medical profession, disease is a biological condition, universal and unchanging; social constructionists define illness as the social meaning of that condition." P. Conrad and K.K. Barker, "The Social Construction of Illness," *Journal of Social Health and Behavior* 51 (2010): 67-79, <http://www.rwjf.org/en/research-publications/find-rwjf-research/2010/11/executive-summary/the-social-construction-of-illness.html>.

²³ Plague, Center For Disease Control, accessed Dec. 3, 2012, <http://www.cdc.gov/plague/history/index.html>.

the year that the causative agent of bubonic plague, later named *Yersinia pestis*, was discovered by Alexander Yersin during the epidemic in Hong Kong.²⁴

Pre-1894, the plague was viewed by the majority of physicians as an imbalance within an individual's humors or bodily makeup.²⁵ This was the medical theory that Hippocrates (d. 377 BC) created and Galen (129-200) expanded upon, and this was the medical practice that was the foundation for all medical treatments up until the late nineteenth century. Humoral theory²⁶ maintains that external miasmas or bad air from decomposing corpses, marshy or stagnant water, sand storms, etc.... emanating from the earth were the assumed cause of epidemics and one's ability to resist infection depended upon imbalances or equilibrium within the body's humors. The Contagionist group, a group of physicians that opposed the humoral theory, believed that physical contact between individuals was necessary for the spread of most diseases. This group viewed the idea of miasmas as a culprit for epidemics with disdain. When Swiss bacteriologist Alexander Yersin discovered the plague bacillus during the 1894 Hong Kong bubonic plague epidemic, it became common knowledge that *Y. pestis* bacillus within the body caused bubonic plague.

In the age of medical bacteriology²⁷ the word contagion takes on a different meaning from that of the classical period. The reading of prelaboratory diseases as laboratory diseases is problematic. "There is an unbridgeable gap between past 'plague'

²⁴ Kitasato Shibasaburō, a German-trained bacteriologist was also in Hong Kong during the 1894 plague epidemic, and he is occasionally listed as co-discoverer of the plague bacillus. However, Yersin was the scientist who originally linked plague to the *Yersinia pestis* microorganism.

²⁵ Humoral theory is discussed in detail in the chapter on classical medical practices.

²⁶ This will be explored in detail in the next chapter.

²⁷ The Golden Age of Microbiology actually began in 1857 with Louis Pasteur's discovery of fermentation and later with Robert Koch's discovery of the anthrax bacillus in 1876. However, debates continued between the Contagionist and Anti-Contagionists until the 1894 discovery of the plague bacillus in Hong Kong.

and our ‘plague.’ We are simply unable to say whether past plague epidemics were the same, since criteria of ‘sameness’ have been changed.”²⁸ Arrizablaga maintains,

I am deliberately renouncing any attempt at retrospective diagnosis by the criteria of what current Western medicine understands by plague today... the identity of disease nowadays known as plague, just like other infectious diseases, relies on an intellectual construction we have inherited from a precise historical and cultural context – that of later nineteenth and early twentieth century laboratory medicine, and specifically, germ theory.²⁹

Historians must also beware of evolving metaphors that can lead to historical misconceptions. The Black Death may have been “the worst disaster ever” but classical man’s “sense of reality was geographically and historically constricted.”³⁰ Subsequent events in classical times, including floods, famine, droughts, other epidemics, or earthquakes were also recorded as the “worst disaster ever,” or “nothing like this had been seen before.” In classical times epidemics were often considered a punishment from God. Epidemics needed explanations, they were processed, and then all levels of society used any possible medical treatment available. “The Black Death was probably the ultimate disaster for those who lived through it, but not necessarily for those living after it.”³¹ Paul Weindling maintains that medical historians need to focus on chronic disease and morbidity in addition to any mortality crisis from specific classical epidemics. He cautions,

In order to understand the social impact of illness or injury on any society, (historians) should remember that not only did the mortality from chronic disease often exceed the mortality from epidemics, but many conditions resulting in disease due to malnutrition, overcrowding and overwork were not reflected in mortality rates... The historian must be wary of reasoning backward from what

²⁸ Lester K. Little, *Plague and the End of Antiquity, the Pandemic of 541-750*. (Cambridge: Cambridge University Press: 2006), 45.

²⁹ Ibid. 45.

³⁰ Jussi Hanska, *Strategies of Sanity and Survival: Religious Responses to Natural Disasters in the Middle Ages*. (Helsinki: Finnish Literature Society, 2002), 20.

³¹ Ibid. 23.

would be modern perceptions of a mortality crisis.³²

Although interest in the Black Death (1346-1352) is enduring, and the subject “must possess the largest bibliography of any single epidemic in history,”³³

the most devastating effects resulted from smaller, recurrent outbreaks (echo epidemics) that continued well into the eighteenth century, although with a lower frequency than in the fourteenth and fifteenth centuries. Between the years 1349 and 1665, only a few decades saw no plague epidemics, and in most cases the epidemics originated from residual foci.³⁴

With the puzzling issues raised by the current study of historical plagues, economic, environmental, social and medical historians continue to debate the epidemiology and etiology of the Black Death and subsequent epidemics. The irreconcilability of these debates will continue as historians attempt to put together fragments of a mosaic in attempts to understand plague epidemics in the classical period. How did classical man relate to his environment? What were the worldviews and social networks of the scholars who recorded these events? How can we relate what we learn of the past to the present – particularly with regard to public health? How could a slow-moving disease, carried by rats, creatures that as a rule move no more than 200 meters from their burrows during a lifetime,³⁵ spread throughout Asia, the Middle East and Europe with such lightening speed? Were the classical plague epidemics initially infectious, spread through fleas and rodents in the environment, and then contagious,

³² Paul Weindling, “Medicine and Modernization: The Social History of German Medicine,” *Historical Science* 24 (1986), 278.

³³ Faye Marie Getz, “Black Death and the Silver Lining: Meaning, Continuity, and Revolutionary Change in Histories of Classical Plague,” *Journal of the History of Biology* 24, no. 2 (Summer, 1991): 266.

³⁴ Stefan Reidel. “Plague, From Natural Disease to Bioterrorism,” Baylor University Medical Center *Proceedings*, accessed November 12, 2012, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1200711/>.

³⁵ Is the movement of the rodents critical to human epidemics? T. Snall et al. demonstrated in 2007 that the movement of prairie dogs in the southwest United States does not drive the spread of plague through the landscape. T. Snall et al. “Climate-Driven Spatial Dynamics of Plague Among Prairie Dog Colonies,” *The American Naturalist*, 171, no. 2 (Feb. 2008): 238, accessed May 7, 2013, <http://www.jstor.org/stable/pdfplus/10.1086/525051.pdf>.

passed directly between humans? Why did fleas jump from rats to humans at particular historic moments? The search for answers introduces different lines of query, and also historical research.

Dissecting Plague: Etiology, Symptomatology, and the Current State of Debate

Current debates on the Black Death focus on issues of historical and contemporary mortality rates in *toto* and by gender, rate of dissemination, seasonality, and variance in symptoms.³⁶ The absence of any classical sources noting epizootics, or massive die-offs of rats or rodents, that would be necessary for a bubonic plague epidemic, raises questions regarding the disease's point of origination.

Since the rat flea, *X. cheopis*, does not jump to humans until the local rat population is nearly obliterated, in theory an outbreak of human plague should be preceded by a large rat die-off. And during the Third Pandemic (1894), practice usually followed theory. Pre-plague rat die-offs were common.³⁷

So how does a rodent disease transferred by insects which only “alight on humans accidentally and not by choice, spread with such devastating rapidity through Europe and Asia? How could it have spread through winter when the flea can only live within a narrow temperature band?”³⁸

A brief explanation of the three primary clinical manifestations of plague –

³⁶ Some authors like Cohn and Twigg also mention disparities between the high mortality of the Black Death and a much lower mortality in current medical cases. However, estimates of between thirty-fifty percent mortality during the Black Death in Europe and the Middle East are in line with the Center for Disease Control's (CDC) information on mortality from *untreated* bubonic plague cases being greater than fifty percent. Other sites note a mortality of fifty-ninety percent and forty-sixty percent. See Center for Biosecurity UMPC http://www.upmc-biosecurity.org/website/our_work/biological-threats-and-epidemics/fact_sheets/plague.html, and also, Medscape Reference, <http://emedicine.medscape.com/article/829233-overview>. Ibn Sina (980-1037, also known as Avicenna) actually did note the behavior of rats during plague epidemics. This will be explored in the next chapter.

³⁷ George Mason University's History News Network, “The Shifting Explanations for the Black Death, the Most Devastating Plague in Human History,” accessed March 6, 2013, <http://hnn.us/articles/10949.html>.

³⁸ Little, *Plague and the End*, 44.

bubonic, pneumonic, and bacteraemic/septicemic – is necessary to help understand the complexities surrounding the etiology of classical plague epidemics.³⁹ Bubonic plague encompasses the majority of plague cases and begins with an infection of the lymph nodes. It is infectious, spread by infected fleas leaving their dead rodent hosts and moving to new rodents or as a last resort, to human hosts. They carry with them the bacteria *Y. pestis* that infects the blood of the unfortunate host the flea happens to bite. The severity of a bubonic plague epidemic is directly related to the density of the flea population and persistence of the infection in the rodents upon which they feed. This type of plague is infectious and spread only through an infected flea. It affects the lymphatic system and the infamous inflamed nodes or buboes described in so many classical sources appear as an early symptom, usually in the groin, armpit or behind the ear. Bubonic plague victims may have all or none of the following symptoms: shivering, vomiting, intolerance to light, stomach pain, headache, delirium or apathy. This is the most common type of plague,⁴⁰ spurs all other manifestations of plague, and mortality is one to fifteen percent in treated cases and forty to sixty percent in untreated cases.⁴¹

If the flea bites directly into a vein or if the dose of *Y. pestis* is so great that it immediately overwhelms the lymph nodes, then the plague bacteria move directly into the bloodstream. When this occurs, primary septicemic or bacteraemic plague develops, “because the infection in the bloodstream is primary to all subsequent developments in

³⁹ An excellent website for detailed descriptions on all clinical manifestations and symptoms of plague is Wild Life Center, <http://www.wildlifecenter.org/bioweapons/pdf/plague/Plague.pdf>.

⁴⁰ Ibid. 72.

⁴¹ Susan D. Dufel, “CBRNE Plague” *Medscape Reference* (June 3, 2011), accessed January 22, 2013, <http://emedicine.medscape.com/article/829233-overview>.

the course of the disease.”⁴² Death generally occurs before there is sufficient time for the telltale bubo to develop; however, extremities such as fingers and toes may turn black. On average death can occur twelve to fourteen hours after initial infection.

Secondary bacteraemic/septicemic plague (secondary to the primary infection of the lymphatic system) occurs in fifty to sixty percent of plague case; once the bacteria begins to multiply in the lymph nodes it eventually overwhelms the system and moves into the bloodstream. At this point, all patients will die, even if there are only low levels of *Y. pestis* in the bloodstream. This type of plague can also result in small hemorrhages or spots on the skin often described in classical accounts of the Black Death. Giovanni Boccaccio in his *Decameron* maintained that not all patients infected with plague developed these telltale blotches, but those who did develop them invariably died.⁴³ Recent research has determined that while flea-borne transmission usually leads to bubonic plague, it can also lead to primary bacteraemic/septicemic plague.⁴⁴ Mortality from bacteraemic/septicemic plague (primary or secondary) in treated cases is forty percent and in untreated cases in one hundred percent.⁴⁵

In cases of secondary bacteraemic/septicemic plague where bacteria are

⁴² Ole J Benedictow, *The Black Death, 1346 – 1353, the Complete History*. (UK: The Boydell Press, 2004), 24. Septicemic and bacteraemic are used interchangeably as septicemic means the invasion of the bloodstream by virulent microorganisms and bacteraemic means the presence of bacteria in the normally sterile environment of the blood. Benedictow’s glossary (xiv-xv) has more detailed definitions.

⁴³ *Ibid.* 26.

⁴⁴ Sebbane Florent et al. “Role of the *Yersinia pestis* Plasminogen Activator in the Incidence of Distinct Septicemic and Bubonic Forms of Flea-Borne Plague.” *Proceedings of the National Academy of Sciences of the USA* 103, no. 14 (April 4, 2004): 5526.

⁴⁵ Dufel, “CBRNE” June 3, 2011 and PBS, RX for Survival: Deadly Diseases, accessed July 17, 2013, <http://www.pbs.org/wgbh/rxforsurvival/series/diseases/plague.html>. Research also indicates that individuals over forty years of age are more susceptible to primary and secondary bacteraemic/septicemic plague than younger individuals. See Harry F. Hull et al. “Septicemic Plague in New Mexico,” *The Journal of Infectious Diseases* 155, no. 1 (Jan. 1, 1987): 113-118. There are four additional rare types of plague including cellulocutaneous or carbuncular, tonsillar and vesicular. The vesicular variety of plague may mimic smallpox and the tonsillar resembles diphtheria; both of these types are deadly. Michael Dols, *The Black Death...73*.

multiplying in the bloodstream, *Y. pestis* can also move into the lungs. This type of infection is called secondary pneumonic plague because it is secondary to the primary infection of bubonic plague. If a patient with secondary pneumonic plague infects another individual through coughing or sneezing, that person then is infected with primary pneumonic plague. Primary pneumonic plague is contagious, spread between people or organisms through the inhalation of respiratory droplets. However, close and personal contact is necessary for these respiratory droplets to spread, and “all standard works emphasize that primary pneumonic plague does not cross-infect easily...patients of primary pneumonic plague live, on average, 1.8 days from onset of the disease...many patients die in the course of the first twenty-four hours, before developing any infective cough at all.”⁴⁶ Buboos do not generally develop in cases of primary pneumonic plague, however, if the respiratory droplets are large and then settle into the tonsils, buboos can then form on the neck or behind the ear, further complicating diagnosis.⁴⁷ Symptoms are shortness of breath, coughing, fever, and bloody sputum.⁴⁸ Even in modern times, death occurs in one hundred percent of cases unless antibiotic treatment begins at the first sign of symptoms, or within the first twenty-four hours. Pneumonic plague, when aerosolized, could possibly be used in a bioterror attack.

⁴⁶ Ole Benedictow, *The Black Death*, 27-28. This lack of infectious power is important because authors like Michael Dols argue that the speed of dissemination during the Black Death might have been due to the presence of highly contagious pneumonic plague. All types of plague probably occurred in classical times, but if a patient infected with primary pneumonic plague generally dies within twenty-four hours, often before developing a contagious cough, the dissemination of the infection is halted. Duncan and Scott argue that the successful forty-day quarantine in fourteenth century Italy confirms that the Black Death was not a plague because whatever the disease was, it was a directly infectious disease (or contagious) with a long incubation period. C.J. Duncan, S. Scott, “What Caused the Black Death?” *Postgrad Medical Journal* 81, 955 (2005): 315, accessed December 20, 2012, <http://pmj.bmj.com.ezproxy.lib.utah.edu/content/81/955/315>.

⁴⁷ Michelle Zeigler, Contagions, Thoughts on Historic Infectious Diseases, accessed March 23, 2012, <http://contagions.wordpress.com/2012/03/23/primary-pneumonic-plague-transmission-in-the-usa-1900-2009/>.

⁴⁸ CDC, “Facts About Pneumonic Plague,” (July 27, 2004), accessed March 10, 2013, <http://www.bt.cdc.gov/agent/plague/factsheet.asp>.

The various and diverse symptoms that occur today and also as described in the classical sources make determining the specific disease that caused such devastation in the fourteenth century almost impossible. In addition, classical authors wrote about the symptoms they believed to be critical in their descriptions of each epidemic. Or they described what they observed, often using terminology that can be translated several different ways, with the possibility that the symptoms might have been indications of more than one disease. For example, Michael Dols notes that all of the following terms are used in classical Arabic sources for bubo: *kubbah*, *khurāj*, *waram*, *dummal*, *jaghalah*, *khazzah*, *dharab*, *ghuddah*, *ṭawā'in*, and *khiyārah*.⁴⁹

All manifestations of plague are described in the various classical histories of epidemics in Egypt, Syria and the surrounding areas. In a description of the Black Death in Cairo, Mamluk historian Maqrīzī (1363-1442) describes what could be pneumonic plague symptoms. In Shawwal 749/Jan 1349, “it was death by the ta'un and the people spit blood. They would give a cry and die. It encompassed the entire world.”⁵⁰ Maqrizi also describes the Black Death in Baghdad where “the people awakened to find they were facing the ta'un. A great bubo (*khurraj*)⁵¹ erupted on their trunk/torso and it was not long until suddenly death passed into their hands.”⁵²

Maqrizi describes symptoms resembling those of modern day bubonic and possibly pneumonic plague in Damascus and Cairo during the Black Death (October – December 1348).

It began (in Damascus) with the eruption of a pustule on the back of the ear and it

⁴⁹ Dols, *The Black Death*, 319.

⁵⁰ Maqrizi, *al-Suluk*, 4, 81. See Conrad, “Tā'un and Wabā',” *Journal of Economic and Social History of the Orient* 25, no. 3 (1982): 271-307, for a discussion of the ambiguities of these two terms.

⁵¹ See Dols, *Black Death*, Appendix Two, 315-319 for many Arabic terms related to plague symptoms.

⁵² *Ibid.* 82.

bubbled quickly and then a bubo (*kubbah*) erupted in the people under the armpit, and they did not linger and died quickly. And then a bubo in the groin (*khiyārah*) flared up and it killed them very quickly. At this time they also started to spit blood and the shock and alarm intensified from the multitude of dead. And those spitting blood did not live more than fifty hours.

In Cairo and Fustāt (old Cairo) the epidemic intensified in the month of Ramadan and the Sultan came from Saraqus. In Shawwal, the people began to spit blood, and the people had heat in their blood (fevers) and a person would find himself vomiting blood and he would die afterwards. And a person in the house would follow one after the other until all died after one or two evenings. None remained and suspicion seized those remaining that they would die of this disease.⁵³

Maqrizi also mentions a woman washing the dead who fell down dead and there were “plague boils the size of small beans found on her fingers.”⁵⁴

Ibn Ḥajar ‘Asqalānī (773/1372-851/1448) describes a plague epidemic in Cairo (833/1429-1430) and the symptoms could indicate pneumonic plague. In the sixteenth century, Ottoman historian Ṭāshköprüzāde (1495-1561) observed high fever, dizziness, vomiting, rapid heartbeat and fainting during a plague outbreak. Paralleling this description, Ibn Khātimah (1323-1369) noted buboes, pulmonary infection, severe pains, sore throat, acute ulcers, headache, diarrhea, and vomiting and extreme thirst in his description of the Black Death in Spain. Ibn Khatimah and his contemporary Ibn Khatib (d. 775/1374) both described buboes (*tawā‘īn*) behind the ears, under the arms, and in the groin. They also noted black spots resembling blistering (*tafqī‘*) or grains (*ḥubūb*), possibly symptoms of yet another manifestation of plague called vesicular.⁵⁵

Finally, Ibn al-Furāt (734/1334-807/1405) described the progression of the plague

⁵³ Ibid. 82,86.

⁵⁴ Ibid. 88. Again a note of caution, symptoms of plague, particularly the bacteraemic/septicemic strain, may be subtle or nonexistent. Also, with no visible buboes initially, the woman could have appeared healthy until the very moment of her death when suddenly others notice what could have been symptoms of plague or some other disease. Occasionally, with bacteraemic/septicemic plague, gangrene develops in the fingers and toes, yet for bubonic plague, it is atypical for buboes to develop on the extremities.

⁵⁵ Vesicular plague often resembles smallpox with blistering on the back of the neck and extremities.

epidemic of Safar 790/March 1388 in Cairo and the surrounding areas. Blisters on the back could be symptoms of bacteraemic/septicemic plague or a different disease altogether.

In the month of Rabī' I/March, in Cairo and Egypt and the surrounding areas, a plague occurred and it was a hot season. And at the beginning (of the plague) a great number died suddenly (*fajā'ah*) and then the majority of the sick had buboes (*kubbah*) erupt upon them and in one or two days they died. And then the majority of sick had blisters (*naḡāṭah*) on the back of the shoulder or in a different spot on the body. A bubo might not erupt on it and the person died from the blisters soon after.⁵⁶

Vesicular plague could also have been present during an outbreak that al-Ṣafadī (d. 764/1363) described in Damascus when he noted skin blemishes on the victims of plague resembling roses. He also described symptoms that could have been pneumonic plague during this time: "Then came the worst calamity that brought tears to every eye. People spat bits of blood, and one was covered with blotches and died. Every person in the morning or evening breathed out blood from his throat as if he had been slain without a knife."⁵⁷ Ibn Abi Hajalah (1325-1374), an eyewitness to the Black Death in Damascus, also observed symptoms of blood spitting and buboes in his treatise written after the plague epidemic of 763/1362.

Ibn al-Wardī (d. 749/1348) died of the Black Death in Aleppo and described the devastation of the epidemic in his town.

How amazingly does it pursue the people of each house! One of them spits blood and everyone in the household is certain of death. It brings the entire family to their graves after one or two nights. I asked the creator of mankind to dispel the plague when it struck. Whoever tasted his own blood was sure to die.⁵⁸

Yet another description by Maqrizi in Rabi' II 833/January 1430 might be a

⁵⁶ Ibn Furāt, *tārīkh Ibn Furāt*, V. 9, part 1 (Bayrūt: al-Maṭab'ah al-amīr kāniyah), 26.

⁵⁷ Ibid. 80.

⁵⁸ Michael Dols, "Ibn al-Wardī" in Dickran Kouymjian, *Near Eastern Numismatics, Iconography, Epigraphy and History* (Beirut, Lebanon: American University of Beirut, 1974), 451-2.

description of pneumonic (symptoms of coughing) or bacteraemic/septicemic plague that often brings sudden death to seemingly healthy people.

Plague came in the winter to Jerusalem, Gaza and Damascus. Death spread quickly from the plague and the cough descended from the brain (*dimāgh*) to the chest. And people died in less than an hour without appearing sick. Most of the dead were infants and children and then the slaves and the handmaids and then all men and women.⁵⁹

During many of these epidemics, animal deaths are often linked by classical authors to the multitudes of people dying at the same time, and often in the same manner. The inclusion of these descriptions demonstrates that certain authors believed a connection existed between animal and human deaths during plague epidemics, and that it was vital to record the relevant stories. These accounts of the symptoms associated with plague, or descriptions of dead animals with plague buboes upon them, figure in many of the historical plague accounts.⁶⁰

(During the Black Death) There was a falconer (*bazdāria*) who threw the flying birds of prey for hunting. Many birds and crows and others from these known types of birds were found dead in the field, and when they were taken from the fields and plucked, a buboe (*kubbah*) was found (on them). And all the cats died until their presence was insignificant. And the news continued from the Jordan

⁵⁹ Maqrizi, *al-Suluk*, 7, 205. In a plague epidemic in Colombo (1914-1915), 200 cases of primary bacteraemic/septicemic plague were recorded and on average, “only 14.5 hours lapsed from onset of illness to death... the course of illness was described as fever in the morning, death in the evening.” Ole Benedictow, *The Black Death*, 25-26.

⁶⁰ Contemporary medical knowledge regarding plague influences assessments of these historical narratives because the mammals, birds and reptiles cited as exhibiting signs of bubonic plague today are known *not* to be susceptible to the disease. Many mammals are susceptible to plague, according to the Merck Veterinary Manual, “but cattle, horses, sheep, and pigs are not known to develop symptomatic illness from plague, while clinical illness has been documented in goats, camels, mule deer, pronghorn antelope, nonhuman primates, and llamas. Infected mountain lions and bobcats have shown clinical signs and mortality similar to those of domestic cats.” <http://www.merckvetmanual.com/mvm/index.jsp?cfile=htm/bc/51900.htm>. While plague is a bacterial infection that is introduced into a human population from a rodent population, the majority of crossover diseases, past and present, are viral. Marburg, Ebola, H1N1, HIV, etc. are all viruses originating in various animal species including bats, mountain gorillas and chimpanzees that have been transferred to human beings. A fascinating and disturbing work on viral spillover from animal to human is David Quamann’s *Spillover, Animal Infections and the Next Human Pandemic*, (NY: Norton and Co., 2012). For research on the reverse, infection being transferred from humans to fowl, see Charles H. Campbell et al. “Fowl Plague Virus from Man,” *The Journal of Infectious Diseases* 122, no. 6 (Dec., 1970): 513-516.

Valley... and they were finding wolves and rabbits and camels and wild asses and pigs and others among the wild animals dead and on them was the sign of the kubbah.”⁶¹

In some gardens of Cairo seven wolves were found that had died of the plague. And a man had four chickens that died and on each of them a kubbah was found at the region of their stomach. And a man had a monkey (*nasānis*) that was hit by the plague in its head and for three days he put water and food in front of it, but it would not take any, and it drank only once; after three days it was destroyed.⁶²

Accounts of the plague epidemic in Egypt in Jumada I, 833/February 1430

included descriptions of fish and crocodiles in the Nile and the ponds found floating dead on top of the water: “A large female crocodile was caught and it was as if she was infused with blood of an intense red color. And in the open spaces between Suez and Cairo many gazelle were found dead.”⁶³ In the plague of Shaban 841/February 1438 many of the cattle showed signs of a disease that caused immediate miscarriage among the pregnant ones: “And upon them was the plague and many calves were destroyed by the plague.”⁶⁴ Later in April, “plague appeared in the sheep and small goats and the cattle. And many fish were found in the Nile that appeared to die of the plague.”⁶⁵

Asqalani describes the plague of Dhu al- Qa‘da 833/August 1430 that “coiled around their camels and their donkeys and it was infamous along the coastal areas near Alexandria.” He also mentions dead crocodiles and fish in the Nile and dead gazelles and

⁶¹ Maqrizi, *al-Suluk*, 4, 88.

⁶² Ibid. 7, 208.

⁶³ Ibid. v. 7, 206. See also Ibn Taghribirdi, *al-nūjūm*. (al-Qāhira: al-mu‘asasah al-miṣriyyah al-‘āmah li-l-ta’līf wa al-ṭabā‘ah wa al-nashr, 1963-1971) v. 18, 69. Different descriptions of symptoms known to accompany plague, and historical descriptions describing symptoms not associated with plague add a bit more uncertainty to determining the causative agent of these historic epidemics. For example, during the Black Death in England, the following symptoms were often noted: “(1) Gangrenous inflammation of the throat and lungs, (2) violent pains in the region of the chest, (3) vomiting and spitting of blood, and (4) the pestilential odor coming from the bodies and breath of the sick.” Spitting blood is often associated with pneumonic plague when the lungs are infected, however, the other three symptoms are not listed as symptoms of the third pandemic or contemporary bubonic or pneumonic plague outbreaks.

⁶⁴ Ibid. 349.

⁶⁵ Ibid. 358. Again, contemporary knowledge adds uncertainty when reading these accounts as cattle and sheep are not susceptible to plague, but goats have developed plague symptoms.

wolves on land.⁶⁶ Maqrizi writes of the decimation of the Khāsia cattle (famous for milk production) and the buffalo in the pastures during the Black Death and “buboes were found on the carcasses.”⁶⁷ Ibn Iyās (1427-1497) describes animals affected during the Black Death: “plague pierced the cats and the dogs and wild beasts and they were lying on the ground and under the armpits were the plague boils. Likewise the horses and camels and donkeys and all the animals that walk on the land and fly like the ostrich and others.”⁶⁸

Centuries after the devastation of the Black Death and subsequent cycles of plague or a combination of several epidemic diseases, Alexander Yersin⁶⁹ discovered that a bacteria invisible to the naked eye, *Y. pestis*, was responsible for a bubonic plague outbreak in Hong Kong (1894). Following this discovery, Yersin claimed that *Y. pestis* had also caused the great classical Black Death as described by so many Islamic historians. This paradigm remained unchallenged until the 1970s when medical historian and bacteriologist Shrewsbury argued that modern plague mortality rates are much lower than the thirty percent or higher rates claimed by classical historians and religious officials, particularly in rural areas.⁷⁰

Shrewsbury also took issue with reports that the plague continued into the winter months; modern bubonic plague outbreaks generally occur in late spring to early fall, as the associated fleas are susceptible to specific temperatures and humidity. His alternate

⁶⁶ Asqalani, *Inbā' al-ghumr*, (Hyderabad, India: Silsilah al-jadīdah min maṭbū'āt dā'irat al-ma'ārif al-uthmāniyah: 1967), 8, 199-200.

⁶⁷ Maqrizi, *al-Suluk*, 4, 1979, 84.

⁶⁸ Ibn Iyās, *Badā'i' al-zuhūr fī waqā'i' al-duhūr: al-fahāris*. (Fīsbādin: Frānz Shtāynar, 1984), 191.

⁶⁹ Yersin M. “La peste bubonique a Hong-Kong.” *Annales de l'institut pasteur* 8 (1894): 662-667.

⁷⁰ Donald Little, *Plague*, 47. Shrewsbury's figure is for untreated bubonic plague, however, the Center for Disease Control notes on its website that untreated bubonic plague mortality rates can actually exceed fifty percent. In the pre-antibiotic era of 1900-1941 the mortality rate for bubonic plague in the United States was sixty percent, a figure in line with historical accounts of forty percent or higher mortality rates. www.cdc.gov/mmwr/PDF/wk/mm5231.pdf.

theory, paralleling those scholars who argue that the Black Death was plague, while simultaneously juxtaposed to those who argue otherwise, is that the Black Death was a convergence of various diseases. Bubonic plague occurred during the summer months while smallpox or typhus epidemics began in the winter months. The question is why, at a particular point in history, did plague or a combination of diseases, spur one large die-off of humanity?

In 1985 Biologist Twigg challenged the retroactive diagnosis of plague for the Black Death noting the absence of any classical description of a rodent epizootic⁷¹ as possibly the most compelling argument that the Black Death could not be plague: “It seems extraordinary that the chroniclers of the Black Death, who recorded the deaths of sparrows, cattle, sheep and even bees, would have failed to notice the deaths of rats inside their houses in advance of the human epidemic.”⁷² He also notes that the length of many epidemics in England – approximately eight months – implies a long incubation period with the number of deaths increasing “sharply to a single mortality peak before decaying.”⁷³ This infectious disease model is not associated with either bubonic or pneumonic plague epidemics.

Duncan and Scott also use the long incubation period and the success of mid-

⁷¹ An epizootic is an epidemic outbreak of disease in an animal population, often with the possibility that it may spread to humans. The argument that there were no classical narratives specifically mentioning massive die-offs of rats or rodents will be addressed in the next chapter.

⁷² G. Twigg, “Bubonic Plague: Doubts and Diagnoses,” *Journal of Medical Microbiology* 42 (1995): 384. This is a good example of applying twenty-first century criteria – many twenty-first century homes in the West do not have rat infestation problems – but many fourteenth century homes were infested with rats so would a massive die-off even warrant note? Rats often lived near people for access to grain and warmth. Also, rats do not generally die in visible places, but in dark corners and underground. See “Black Death Study Lets Rats off the Hook,” Maev Kennedy, *The Guardian*, 17, August 17, 2011, accessed May 2, 2013, <http://www.guardian.co.uk/world/2011/aug/17/black-death-rats-off-hook> in which the author of *The Black Death In London*, (South Carolina: The History Press, 2011) archeologist Barry Sloane argues that the lack of archeological evidence of massive rat die-offs in the ports of fourteenth century London do not support a bubonic plague theory for the Black Death.

⁷³ Twigg, G. “The Black Death and DNA,” *The Lancet, Infectious Diseases* 3, (January 2003): 11.

fourteenth century forty-day quarantines as an indication that the Black Death was directly infectious between people (contagious). They maintain it was not bubonic plague, but a viral hemorrhagic fever, what the authors call hemorrhagic plague, having a long incubation period of thirty-two days. This incubation period would have allowed an apparently healthy individual to come into contact with numerous individuals before showing symptoms of illness. Even with the limited movement of human beings and transportation of the mid-fourteenth century, the movement of the Black Death across Europe, approximately four km or two and a half miles a day, was remarkable.⁷⁴

Duncan and Scott's summary of evidence as to why the Black Death and subsequent epidemics were not plague include the following:

- Two mid-fifteenth century plague epidemics occurred in Iceland in freezing conditions with no rats present,
- No plague resistant rat species existed in the region to support a focus to perpetuate epidemic cycles,
- Case mortality was much higher than the known mortality of bubonic plague, case mortality in hemorrhagic plague is 100%, at least ten-fold that of bubonic plague,
- A chilly climate made flea reproduction impossible,
- The Black Death traveled from Sicily to the Arctic Circle in less than three years with subsequent epidemics traveling 300 km, much too fast for bubonic plague,
- As early as the mid-seventeenth century there was recognition that some

⁷⁴ Duncan and Scott, "What Was the Black Death?" 315.

types of plague was directly infectious among people (contagious), and four meters was considered a safe distance from an infected individual.⁷⁵

The descriptions of classical plague symptoms often fit other diseases as well, or better than those of plague;⁷⁶ several authors in addition to Duncan and Scott have proposed alternate diseases for the classical epidemic. Twigg has suggested that the Black Death might have been anthrax,⁷⁷ however, anthrax is not contagious; it is infectious and spreads by spores in clothing or material. The slow rate of dissemination is problematic for this argument. Cohn does not present an alternative disease, but maintains the Black Death could not have been plague due to differences between classical and contemporary descriptions of symptoms, etiology and the apparent development of some immunity in classical populations.⁷⁸

Benedict is in agreement with regard to the speed of dissemination in classical times. He found that plague in nineteenth century China spread only a few miles annually, a rate much too slow to have wreaked havoc on the classical world.⁷⁹ More recently, Theilmann and Cate have proposed a mix of diseases along with bubonic plague

⁷⁵ Ibid. 317. Daniel Defoe, in his *Diary of a Plague Year* described the infectious nature of the Great Plague of London in 1665, “because of its infectious nature, the disease may be spread by apparently healthy people who harbor the disease but have not yet exhibited the symptoms. Such a person was in fact a poisoner, a walking destroyer perhaps for a week or a fortnight before his death, who might have ruined those that he would have hazarded his life to save... breathing death upon them, even perhaps his tender kissing and embracing of his own children.” 316.

⁷⁶ Pneumonic plague can be misdiagnosed as influenza, anthrax, Q fever and tularemia. In California in 1919, an outbreak of pneumonic plague was misdiagnosed as influenza. See John Theilmann, and Frances Cate, “A Plague of Plagues: The Problem of Plague Diagnosis in Classical England,” *Journal of Interdisciplinary History* 37, no. 3 (Winter, 2007): 386.

⁷⁷ Joseph Byrne. *Encyclopedia of the Black Death*, (Santa Barbara, CA: ABC-CLIO, 2012): 47.

⁷⁸ Samuel Cohn. “Bubonic Plague: End of a Paradigm,” *The American Historical Review* 107, No. 3 (June 2002): 703. Only recently have successful vaccines against bubonic and pneumonic plague been developed and tested in mice. Lauriane E Quenee et al. “*Yersinia pestis* cafI Variants and the Limits of Plague Vaccine Protection.” *Infection and Immunity* 76 (May 2008): 2025-36. Limited immunity is possible in certain circumstances. See Ell, Stephen R, “Immunity as a Factor in the Epidemiology of Classical Plague,” *Reviews of Infectious Diseases* VI (1984): 866-879.

⁷⁹ John Theilmann and Frances Cate. “A Plague of Plagues: The Problem of Plague Diagnosis in Classical England,” *Journal of Interdisciplinary History* 37, no. 3 (Winter, 2007): 376.

as the cause of such devastation in classical England. New research on the ability of *Y. pestis* to mutate into more virulent or less virulent strains adds further complexities to the discussion.⁸⁰

Michael Dols, in *The Black Death in the Middle East*, suggests a combination of bubonic plague, pneumonic plague and septicemic plague to explain the speed of transmission and the high mortality rate. However, recent research on the transmission rate of pneumonic plague makes this scenario unlikely. A.F. Hinkley et al. in 2012 noted, “using data for all primary pneumonic plague cases reported in the USA from 1900 to 2009, we determined that *the majority of cases will fail to transmit*, even in the absence of antimicrobial treatment or prophylaxis.”⁸¹ Mark Gamsa maintains that out of all possible epidemics, one of septicemic plague would be the most lethal as an epidemic itself, not as a manifestation of bubonic plague. Although this is the most rare type of plague, it is the most lethal, can be highly contagious, and impossible to cure unless identified and treated within the first twenty-four hours.⁸²

With regard to these mutations, three different biovars or types related to *Y. pestis* were thought to have caused the three plague pandemics in history. The Plague of Justinian in 541-767 A.D. was initially suspected to have been caused by type *Antiqua*, the classical Black Death was suspected of being type *Medivalis*, and the third pandemic in nineteenth century China was caused by the *Orientalis* strain of *Y. pestis*. This third strain, *Orientalis*, was very adept at spreading across Asia, to India and the Western

⁸⁰ Theilmann and Cate. “A Plague of Plagues,” 378.

⁸¹ A.F. Hinkley et al “Transmission Rates of Primary Pneumonic Plague in the USA,” *Epidemiology and Infection* 140, no. 3, (March, 2012): 554, accessed November 12, 2013, <http://www.jstor.org.ezproxy.lib.utah.edu/stable/41408386>.

⁸² Mark Gansa, “The Epidemic of Pneumonic Plague in Manchuria, 1910-1911,” *Past and Present* 190, (February, 2006): 147, accessed November 13, 2013, www.jstor.org/stable/3600890.

United States. Although quick at disseminating across large geographic regions, *Orientalis* has never truly become a human disease and only on occasion has it produced chains of pneumonic plague in humans and is generally short-lived.⁸³

To complicate matters further, there can be isolates or atypical biovars of *Y. pestis* and symptomatology of all strains may differ between individuals infected with the same strain.⁸⁴ Some authors maintain that the *Antiqua* and *Medivalis* strains were much more virulent than the modern *Orientalis* strain, thus justifying the higher mortality of the first two pandemics. However, Drancourt and Achtman, in 2004 determined that all three pandemics, Justinian in 541, the Black Death in 1348-1349, and Hong Kong in 1894, were most probably caused by the *Orientalis* strain, and not three separate strains of *Y. pestis*.⁸⁵

Rosen explores the need for the *Y. pestis* to balance virulence with dissemination because an organism that kills its host population too quickly cannot evolve, moderate its virulence and sustain itself. Because *Y. pestis* is zoonosis, or meant for animal populations, particularly rodents, there is no need for this particular bacteria to moderate its virulence in relation to human populations. There is a direct relationship between exploding rat populations and the risk of infection to humans. The greater the number of infected rats, the more likely there will be massive die-offs in a rat population and hungry

⁸³ Wendy Orent, *Plague: The Mysterious Past and Terrifying Future of the World's Most Dangerous Disease*, (New York: Free Press, 2003), 176.

⁸⁴ Mark Achtman et al., "Microevolution and History of Plague Bacillus, *Y. pestis*," *Proceedings of the National Academy of Sciences of the USA* 101, no. 51, (Dec. 21, 2004): 17837. The most identifiable symptoms of bubonic plague are the large swellings in the lymph nodes behind the ear, under the arm or in the groin. Yet Boccaccio's famous *Decameron* details some of the more atypical symptoms of plague in addition to the buboes, "the disease began in both men and women with certain swellings in the groin or under the armpit...In a short space of time these swellings spread...all over the body. Soon after this the symptoms changed and black or purple spots appeared on the arms or thighs...very few recovered." Boccaccio, *The Decameron of Giovanni Boccaccio*, trans. Richard Aldington. New York: Dell, 1930, 31.

⁸⁵ Drancourt et al. "Genotyping..." 1585 and Achtman et al., "Microevolution and History..." 17837.

fleas carrying *Y. pestis* will jump to the most convenient hosts, the human population.⁸⁶

Benedictow concisely sums up the process of *Y. pestis* moving from its preferred rodent population to a human population.

1) Plague among rats (the enzootic and epizootic phases; 2) the endemic phase: the first sprinkling of human cases, often concentrated in a few houses, and also including the incubation period, i.e. from the infective bite to the time a person falls ill, and the average duration of disease in mortal cases; 3) the development of the epidemic proper. The time horizon of these epidemiological phases is well known: it takes... on average twelve days, from introduction of contagion into one or more colonies of house rats before the rat population is so decimated that their fleas have difficulties in finding new rat hosts and begin a run on human beings in their immediate proximity. ... This means that the first human cases would occur after sixteen-twenty four days, and within this range most often after about twenty-four days, from the introduction of plague into a community until its presence is reflected in the form of the first endemic deaths.⁸⁷

Benedictow also notes that most chroniclers of these catastrophic events were the educated elite who did not live in the port cities or the poorer quarters where epidemics generally originated. The diffusion of the disease probably went unnoticed for some time until the elites themselves or their neighborhoods were infected. He averages that the size of the villages and townships would also determine how long it would take from actual infection to the population's recognition of the infection: "5.5 – 6 weeks in village and townships; 6-7 weeks in towns, and 7 weeks in cities and [8 weeks] in the few metropolises ... with about or over 100,000 inhabitants."⁸⁸

Endemic to Epidemic: Volcanic Eruptions and Catastrophic Weather Events

Rosen adds another issue to an already complex debate when he notes that a global climatic event could have pushed rat populations over the 6,000 per square km

⁸⁶ William Rosen, "Justinian's Flea..." 189-190.

⁸⁷ Ole Benedictow, *The Black Death*, 57-58.

⁸⁸ *Ibid.* 58.

threshold and spurred the first great plague pandemic, Justinian's Plague (541-542).

There is a narrow range of temperature that is optimal for the bacterium carrying rat flea (*X. cheopsis*) and that is between fifty-nine to sixty-eight degrees F. If the temperature rises above seventy-five degrees F. the rate at which *Y. pestis* multiplies within the flea falls precipitously. A drop in temperatures due to a dust veil circling the earth and the subsequent cooling temperatures might have allowed the fleas to temporarily move out of their tropical realms.

Studies of tree ring growth between 536 and 551 A.D. show that these rings were very small in parts of Europe, China and New Zealand for this period.

Contemporary writers in southern Europe described what modern climate scientists call a "dust veil event" which sharply reduced solar radiation reaching the earth's surface. This depressed temperatures, disrupted weather patterns, reduced biological productivity, including food crops, and resulted in famine and social disruption during the sixth century...In Britain, the period 535-555 A.D. experienced the worst weather of the sixth century. In Mesopotamia, there were heavy snowfalls and in Arabia there was flooding followed by famine. In China, in 536, there was drought and famine and yellow dust rained down like snow. In Korea, 535 and 536 were the worst years of that century in climatic terms with massive storms and flooding, followed by drought. It has also been suggested that the occurrence of the Justinian Plague... is linked to the climatic events five years earlier.⁸⁹

Rosen notes that dendrochronology, measuring the number and size of tree rings in determining historical weather patterns, can be used to effectively calculate the temperature of a known date. Irish dendrochronologists have measured a drop in temperature in the mid- to late 530's that may have been "enough to remove the roadblock keeping fleas confined to tropics." Ice core samples and dendrochronology samples from Iceland and Greenland show evidence of a massive volcanic eruption in 535-536. David Keys and climatologist Richard Stothers from Goddard Institute for

⁸⁹ Environmental History Resource, Volcanic Eruptions and European History, accessed March 29, 2013, <http://www.eh-resources.org/volcanoes.html>.

Space Studies argue that the volcanic explosion of Krakatoa in Sumatra is the most likely culprit for a dust veil⁹⁰ and the subsequent global cooling during this period.⁹¹ Following this cataclysmic event, devastating global weather events were recorded. Roman historian Procopius noted that the sun was dim for eighteen months, heavy snow fell in Mesopotamia, drought and famine struck China, and starvation ran rampant in Japan. Dendrochronological data show that South America witnessed a thirty-two-year drought, and for the years 536 and 542-543, trees in North America stopped growing altogether.⁹²

Once sulfur dioxide from volcanic eruptions transform into sulfuric acid when combined with water and the gas, this mixture then creates a barrier that blocks the sun's radiation from reaching the earth. As the sulfuric acid enters the jet stream, this lethal mixture can spread around the globe in a matter of days. Ice samples from Greenland and Iceland show significant traces of sulfuric acid for this period. During the time period preceding Justinian's Plague, it appears that there was a drop in temperature in the mid-to late 530s, a drop of at least three degrees F. in Scandinavia.⁹³

This drop in temperature may have been sufficient to remove the temperature barrier that generally confines the fleas to their normal reservoirs and spurred the migration of rats, fleas and bacteria from East Africa to Alexandria and the Egyptian port of Pelusium.⁹⁴ Global cooling some time before the outbreak of plague in Justinian's

⁹⁰ Keys maintains that this event, based on his research, was most likely a huge volcanic eruption in 535. This eruption occurred in the narrow section of water that currently separates the islands of Java and Sumatra. For a detailed reconstruction of this eruption, and two other possible scenarios see pp. 249-266 in *Catastrophe*, (New York: Ballantine): 1999.

⁹¹ *Ibid.* Other authors, like Larsen, argue that the volcanic event took place in South or Central America. L. B. Larsen et al., "New Ice Core Evidence for a Volcanic Cause of the A.D. 536 Dust Veil," *Geophysical Research Letters* 35 (2008): L04708, accessed April 1, 2013, <http://www.agu.org/journals/gl/g10804/2007GL032450/>.

⁹² *Ibid.* 4-5.

⁹³ William Rosen, *Justinian's Flea*, 201.

⁹⁴ *Ibid.* 201-203.

time might be related to the unusual speed and span of this earlier epidemic's dissemination.⁹⁵ The Center for Disease Control in the United States has determined that sudden climatic change directly influences most outbreaks of plague. Sudden heavy rain following a period of drought is the most likely scenario for fleas to abandon their favored host, the rat, and move into the human population.⁹⁶

More recent accounts of volcanic activity and the after effects appear to validate the link between huge volcanic eruptions, catastrophic weather events and biological upheavals. When Krakatoa erupted in 1883, the island of Krakatoa was blown apart, huge tsunamis wiped out settlements nearby, and the surrounding area turned dark with only brief hours of faint sunlight. As the winds moved the dust around the world sailors noted that sunsets were green, and in the United States, blood red sunsets became the norm.⁹⁷ The even larger eruption of Mount Tambor in 1815 may have resulted in what was labeled the "Year Without a Summer." The sky appeared continuously overcast, temperatures did not warm in the spring, and crop failures were reported in Ireland, England, France, and the United States. Hard frosts and drought were reported in the summer months in Boston and New York, while Switzerland and Ireland reported a cold and rainy summer of 1816.⁹⁸

Keys' and Rosen's exploration of climatic events that might have spurred the plague epidemic of Justinian now begs a similar exploration of the classical Black Death. Were any catastrophic climatic events evident preceding the outbreak of the disease? If

⁹⁵ Ibid.

⁹⁶ David Keys. *Catastrophe: An Investigation into the Origins of the Modern World*. (New York: Ballantine, 1999): 19-21.

⁹⁷ Nineteenth Century History, About.com, Krakatoa Volcano Eruption in 1883 Was a Worldwide Weather and Media Event, accessed March 29, 2013, <http://history1800s.about.com/od/thegildedage/a/krakatoa.htm>.

⁹⁸ Nineteenth Century History. About.com, The Year Without a Summer Was a Bizarre Weather Disaster in 1816, accessed March 29, 2013, <http://history1800s.about.com/od/crimesanddisasters/a/The-Year-Without-A-Summer.htm>.

so, what role could these events have played in propelling endemic plague in the historic plague reservoirs out into Asia, Africa and Europe? Accounts of the fourteenth-century Black Death, like the Plague of Justinian, tell of massive flooding, famine and earthquakes before and during the epidemic. These environmental upheavals could have forced the rodents in the Asiatic Steppe out of their burrows, destroying food supplies, and forcing them to seek shelter and sustenance in human and other rodent populations, spreading the epizootic. In 1346, at least in the major Mediterranean seaports, rumors of an unprecedented pestilence sweeping the Orient were already circulating.⁹⁹

Severe climate variability and the beginning of what is called “The Little Ice Age” characterize the period from 1300 onwards. Although The Little Ice Age is generally assumed to have been from 1550-1850, severe weather patterns and cooling temperatures actually began in the early fourteenth century. Temperatures were on average 1.8- 3.6 degrees Fahrenheit lower than average and weather patterns were more violent and unpredictable. In particular, the first two decades of the fourteenth century were wetter, and windier than the norm, and the global weather patterns were increasingly unstable. Written records of the years 1314-1317 provide accounts of erratic weather patterns, severe drought and famine. An event similar to the dust veil of 535 may have been responsible for this erratic weather that may then have lead to malnutrition and lower immunity levels in populations hit by the Black Death.¹⁰⁰

Dr. Bruce Campbell, in his Tawney Lecture, “Nature as a Protagonist,” maintains his doubt that the classical Black Death was caused by *Y. pestis*, noting that the disease apparently reached Iceland in 1350, where there is no archeological evidence of rat

⁹⁹ Dols, *The Black Death*, 37-40.

¹⁰⁰ Environmental History Resources, 500-1500, accessed on November 9, 2012, http://www.eh-resources.org/timeline/timeline_me.html.

populations.¹⁰¹ He explores the possibility that whatever this massive pandemic actually was, a bacterial infection spread by rodents or a viral infection spread by human beings, it operated in concert with environmental hazards and volatile weather patterns of that period.

These weather patterns are striking similar to the dust veil preceding the Plague of Justinian, and recently evidence has been discovered in a mass grave in London that suggest an enormous volcanic eruption may have spurred the classical period's inclement weather. In 2012, a fourteenth century mass grave in London was discovered containing more than 10,000 skeletons. The initial findings suggested that the victims had died from the Great Famine of 1315-1317 or the Black Death. However, radiocarbon dating has determined that the people were victims of a gigantic volcanic eruption in the mid-thirteenth century. Accounts for the period 1257-58 describe heavy rains, famine, crop failure and several diseases related to malnutrition such as typhoid fever and dysentery.¹⁰²

Surprisingly, perhaps, the volcano's exact location has yet to be established. Mexico, Ecuador and Indonesia are the most likely areas, according to volcanologists, who found evidence in ice cores from the northern hemisphere and Antarctic and within a thick layer of ash from Lake Malawi sediments. The ice core sulphate concentration shows that it was up to eight times higher than Indonesia's Krakatoa eruption of 1883, one of the most catastrophic in history... Volcanologist Bill McGuire, author of *Waking the Giant*, notes "This was the biggest eruption in historic times. It may have brought the temperatures down by 4°C (7.2 F.) a huge amount. Because it was somewhere in the tropics it meant that the winds of both hemispheres were able to carry these gases right across the planet... if you have an equatorial or tropical eruption that's big enough, then the sulphur gases can spread into both hemispheres and really encircle the whole

¹⁰¹ His argument is in line with Duncan and Scott. Richard Streeter et al. would argue otherwise, these authors insist that Iceland escaped the Black Death only to witness two devastating epidemics in 1402-1404 and 1494-1495, both of which are estimated to have killed half the population. "Plague and Landscape Resilience in Premodern Iceland," *Proceedings of the National Academy of Sciences of the U.S.* (Nov. 28, 2011) Gordon Research Conferences, accessed December 11, 2012, <http://www.pnas.org/content/109/10/3664.full>.

¹⁰² *The Guardian/Observer*, "Mass Grave in London Reveals How Volcano caused Global catastrophe," accessed March 20, 2013, <http://www.guardian.co.uk/uk/2012/aug/05/classical-volcano-disaster-london-graves>.

planet in a sulphurous veil."¹⁰³

Bruce Campbell notes that scientific evidence taken from ice core samples in Greenland and Iceland show evidence of a gigantic volcanic eruption in 1258; this was probably the largest volcanic eruption in the last 2,000 years. Using research on ice core samples and dendrochronology, Campbell demonstrates huge disparities in old and new world tree growth in the years 1314-1317 indicating a global, and not regional, weather incident during the Great Famine years in Europe. He notes, however, that the greatest fall in net grain yield per seed actually occurred between 1348-1350 during the Black Death. This decrease in yield was between forty-fifty percent of net grain yield per seed and worse than yields in the Great Famine years.¹⁰⁴

He also explores huge fluctuations in the North Atlantic sea surface temperatures between 1300-1353, which led to massive summer and fall storms and had profound effects on weather conditions in Northern Europe. He notes that between 1270 and 1420 increased economic instability paralleled the erratic weather patterns. A cataclysmic volcanic eruption may have spurred these instabilities. He maintains that further research is necessary to investigate these physical shocks that occurred alongside the increased human and animal infections of the period.¹⁰⁵

Classical accounts of plague epidemics in Egypt and Syria often include descriptions of strange climatic events or severe weather accompanying or preceding plague epidemics. Heavy rains, severe drought and famine figure prominently in many classical accounts from Mamluk Egypt and Syria. Ibn Kathīr notes that in Damascus

¹⁰³ Ibid.

¹⁰⁴ Bruce Campbell, "Nature as a Protagonist," 2008 Tawney Lecture, accessed November 12 201, <http://www.yada-yada.co.uk/podcasts/Blackwell/video/Tawney2008/index.html>.

¹⁰⁵ Ibid.

Rajab 749/October 1348) and surrounding areas, in the afternoon, “there was a strong wind with a large yellow dust cloud which turned black and covered the world.”¹⁰⁶

Asqalānī mentions an epidemic (*waba'*) in Ramaḍān 775/Feb 1374 that coincided with the Nile's failure to rise. There were prayers and processions with many prayers for rain, but many died.¹⁰⁷ Maqrīzī also mentions that in an earlier epidemic in 644/1246 there was starvation and people “who traveled from the mountains smelled a malodorous wind of the dead.” Also in 694/1295 there was a great epidemic all over Egypt accompanied by famine and drought.¹⁰⁸

In Maqrīzī's initial description of the Black Death, he notes that the pestilence began in the lands of the Great Khan. He describes the weather associated with the devastation.

And then the wind carried the smell of their malodorous bodies to (other) lands... and at the time the people smelled it or the animals, they died at that hour. In the lands of the Khitai¹⁰⁹ there occurred a rain unlike any seen before, and their cattle and their livestock died afterwards and then the rain ceased and the people and birds and beasts of the land died until the lands of the Khitai were empty and the epidemic spread to the Faranj and it began in their livestock and then the infants and the young and then death disgraced all the people of Jerusalem. In the evening there was a great earthquake and a strong wind blew and the sea spread from the port about 100 Qassabah¹¹⁰ and sank many ships. And some boats were passing the islands of the Franks, and they did not find any passengers, and many of those (on the boats) died and they were thrown into the sea. The reason for their death was a wind that blew from the sea and at the moment a person smelled it, he fell, and continuously struck his head upon the ground until he died.¹¹¹

He mentions a strong wind blowing and a violent stand storm and intense heat

¹⁰⁶ Ibn Kathir, *al-Bidāyah wa al-nihāyah*, 1932-39, 228.

¹⁰⁷ Ibn Hajar, *Inba' al-ghumr*, 1, 76.

¹⁰⁸ Maqrizi, *al-Suluk*, 2, 261.

¹⁰⁹ Michael Dols suggests that the Khitai in this description were probably a branch of the northern Mongol race, the Qara-Khitai who built an empire in eastern Turkestan in the twelfth and thirteenth centuries. They were conquered by the later Mongol invasion of Ghengis Khan in the fourteenth century; they were part of the Khanate of Jagatai. *The Black Death*, 38. Also see René Grousset, “The Empire of the Steppes: A History of Central Asia, trans. By N. Walford (New Brunswick: N.J., 1970).

¹¹⁰ A linear measurement approximately a shinbone length.

¹¹¹ Maqrizi, *al-Suluk*, 4, 81-84.

during the plague of Ramadan 806/April 1404. He describes dense fog and thunder and rain; boats sank in the sea, and then these events were followed by a cold, humid wind with fog. In May a hot wind blew and there was high humidity, and when spring ended, the plague was finally lifted.¹¹² In the epidemic of Jumada II 833/March, 1430, he notes “in this year and before there was a great drought and a very great epidemic.”¹¹³ There was also a strong wind blowing in Tripoli for days.¹¹⁴ In the month of Shawwal in Beirut and Sham, (March 1438) there was such intense cold that the trees were covered in ice. “There was no greenery that remained upon them, only blackened leaves.” Crops failed and there was a great flood in the Maghreb on the celebratory evening of Eid al-Fitr.¹¹⁵

Plague Foci and Dissemination Patterns

Determining the origination point, or plague reservoir, for these epidemics is critical in any attempt to understand exactly where and when the epidemic began spreading to and among the human population. Rosen, in his exploration of possible plague reservoirs for Justinian’s Plague, notes that there are currently dozens of plague reservoirs worldwide, but “only three are more than a century old.”¹¹⁶ Plague evolution probably occurred in either the Himalayan foothills, the Great Steppe reaching west from China, or the Great Lakes region of east and central Africa encompassing the Great Rift Valley. J.C. Russell advocates Justinian’s Plague originating in the Great Steppe, but there is no real evidence of plague in the grasslands running from Mongolia to Ukraine

¹¹² Ibid. v. 6, 107.

¹¹³ Ibid. v. 7, 214.

¹¹⁴ Ibid. 347.

¹¹⁵ Ibid. v. 7, 352-353.

¹¹⁶ Rosen, *Justinian’s Flea*, 195.

until the year 610, sixty-eight years after the Plague of Justinian.¹¹⁷ East Africa is the most likely culprit for the origination of Justinian's Plague; the Mediterranean was infected half a century before the disease made a visit to China, and Persia was hit after the plague had already infected Rome. The rodents in these plague reservoirs, where the disease is generally endemic, were most likely struck by an increased susceptibility to the disease while simultaneously experiencing a population explosion.

Even modest increases in rodent populations over the 6,000 per square km obstacle, in addition to an increased susceptibility to the disease, can exert enormous epidemiological pressure and turn an endemic disease into an epidemic.¹¹⁸ When there is a massive die-off of the host population, the hungry flea will bite anything it can, numerous times, in order to quell its increasing hunger. Severe climate change is one possible explanation for plague breaking out of its historic animal reservoirs and spreading into urban areas.

Benedictow explores three possible points of origination for plague in the fourteenth century, all of which are old enough to be suspect. These three foci include: a plague focus running from the north-western Kazakh and Russian shores of the Caspian Sea into southern Russia, one spreading from the eastern shores of the Caspian Sea into the steppes of Central Asia as far as eastern Kazakhstan, and a plague focus covering Russian Siberia bordering Mongolia, outer Mongolia and Manchuria.¹¹⁹ Eva Panagiotakopulu argues that there was actually a fourth historic focus of bubonic plague in the wild rodent populations of Egypt and East Africa during the Pharaonic period. She maintains that the Nile rat was the primary host for the rat flea, *X. cheopis*, but

¹¹⁷ Ibid.

¹¹⁸ Ibid. 193.

¹¹⁹ Benedictow, *The Black Death*, 45.

urbanization, and Nile flooding brought humans into close contact with these rats, with *X. cheopis* jumping to the black rat, which preferred close contact with humans.

The existence of large numbers of human fleas and squalid conditions from the workmen's village at Amarna, evidence for Nile rats and black rats from Pharaonic sites and descriptions of an epidemic disease in the Amarna letters, the Hittitic archives and the Ebers papyrus with references to swelling buboes, present a new scenario for the origins of the disease. Most modern researchers have regarded the origins of bubonic plague as a disease of Central Asiatic rodents...evidence... suggests that the bacillus *Y. pestis* was primarily a disease of the Nile rat, *Arvicanthis niloticus*, which only achieved epidemic proportions when its vector, the tropical rat flea, *X. cheopis*, was able to make the jump to a new host, the black or ship rat, *Rattus rattus*, introduced from India or indirectly via Mesopotamia during the Pharaonic period. Synanthropy and a high death rate in the new host lead to frequent transfer to human populations and stochastic waves of pandemics.¹²⁰

With regard to the geographic spread of the Black Death, William McNeill was the first to propose a theory on diffusion patterns in 1976. He noted that the epidemic probably invaded China in 1331 from one of two historic plague foci, either Yunnan-Burma or from a newer focus in the steppes of Manchuria and Mongolia. From there it followed the caravan routes in Asia, probably reaching China in 1346. "Whereupon the bacillus took ship and proceeded to penetrate almost all of Europe and the Near East...(where) the far-flung networks of caravanserais extending throughout central Asia and Eastern Europe offered a ready-made pathway for (its) propagation..." He also cites evidence that a Nestorian trader community was struck by plague near Issyk Kul (modern day Kirgizstan) in 1338-39 based on evidence of tombstone markings noting death by plague.¹²¹ In response, Benedictow argues that based on more recent studies of the Nestorian cemeteries in question, plague is not the most likely culprit. Out of 330

¹²⁰ Eva Panagiotakopulu, "Pharaonic Egypt and the Origins of Plague," *Journal of Biogeography* 31, No. 2 (Feb., 2004): 269, accessed May 6, 2013, <http://www.jstor.org/stable/3554655>.

¹²¹ William H. McNeill. *Plagues and People*, (New York: Archer Press/Doubleday, 1976): 164. *The Black Death*, 48. This mirrors similar problems with the Arabic terms waba' and ta'un in classical Islamic texts.

headstones with the names of 650 persons who had died, only 106 of them had died in the years 1338-39. The word originally translated by Russian archaeologist Chowlsen as “plague” has the more general meaning of “epidemic” or “pestilence.”

Michael Dols notes there can be little doubt that the epidemic originated in the Asiatic Steppe, a region that Wu Lien Teh has termed “one huge endemic area.”¹²² It moved south and west to China, accompanied by “flooding, famines and earthquakes,” and then struck India and the lands of the Mongol Kھیтай.¹²³ From there the pestilence spread to “the Uzbeks, Transoxiana and Persia and then (moved) on to the Crimea and the entire Mediterranean.”¹²⁴

Benedictow advocates an initial upsurge of plague in south Russia in 1346 that continued south to Mongolia and then west to the Black Sea, Constantinople, the Aegean, and the lands of the Mediterranean. According to a Russian chronicler, in late 1346, early 1347 the pestilence had moved south and southwest through the Golden Horde in southern Russia, across the Caucasus and Trans-Caucasian territories and in the same years a serious plague epidemic was noted in Azerbaijan. Benedictow likens the epidemic’s movements to that of a military pincer movement – one finger spread over land and along commercial waterways while another finger struck urban coastal centers in the Middle East and Asia Minor, eventually engulfing the entire area.¹²⁵

Towards the end of 1347 tentacles of virulence had struck the commercial crossroads of the Mediterranean, Sicily. Plague probably attacked Constantinople in early

¹²² Wu Lien Teh, “The Original Home of the Plague,” *Japan Medical World* 4, no. 1 (Jan. 15, 1924): 12 as cited in Michael Dols, *The Black Death*, 38.

¹²³ According to Dols this is the Mongol dynasty in eastern Turkestan of the twelfth and thirteenth century that was later conquered by Genghis Khan. *Ibid.* 38-39.

¹²⁴ *Ibid.* 38

¹²⁵ Benedictow, *The Black Death*, 60.

May 1347, but was not recognized as an epidemic until months later in July of that year. Its momentum grew and it “gained a foothold on the European side of the straits” moving approximately one hundred km inland in 1347, to the Anatolian plateau and mountain regions by 1349. Commercial ties between the Golden Horde and the Mamluk Empire in Egypt probably facilitated the plague’s arrival in Alexandria in autumn of 1347. In early 1348 the lower Nile Valley was infected; the epidemic took one and a half years to spread from Alexandria in northern Egypt and engulf Upper Egypt.¹²⁶

In the summer of 1348 the plague had settled in Gaza and Palestine; the famous traveler Ibn Battutah wrote that upon his arrival in Damascus in July plague was raging and in 1348, plague arrived in Mecca, carried by Muslim pilgrims. In the late summer of 1348, the entire Mediterranean had been infected; the pestilence traveled through Western Europe and by 1349 it had reached England and the northern Iberian Peninsula. In 1350 Scotland, Sweden, Germany, and as far north as Norway and Iceland were infected. By 1351 Poland and the eastern Baltic region was infected as the epidemic then returned in full circle to Russia in 1352 and died out.¹²⁷

Ancient DNA and the Continuing Uncertainty

Adding to debates regarding point of origination, and concerns of plague linked to environmental upheavals and odd weather events, in 1998 Drancourt et al. and Raoult added another piece to the puzzle with the use of paleopathology, research using ancient DNA (aDNA). These authors published research in which the ground dental pulp of twelve individuals believed to have died from plague in sixteenth-eighteenth century

¹²⁶ Ibid. 60-64.

¹²⁷ Campbell, “Nature as a Protagonist,” accessed November 12, 2012), <http://www.yada-yada.co.uk/podcasts/Blackwell/video/Tawney2008/index.html>. Also for detailed descriptions by region see Benedictow, *The Black Death*, 60-65.

France was analyzed for the presence of *Y. pestis*. Both studies concluded that the presence of *Y. pestis* in six samples confirmed the presence of plague in sixteenth century France.¹²⁸ In 2004 Gilbert et al. responded that attempts by his group to duplicate Drancourt and Raoult's 1998 findings were unsuccessful. They extended the study to five other thirteenth-seventeenth century European gravesites suspected of housing plague victims. No evidence of *Y. pestis* was found despite the large number of samples used, which included two well-documented plague pits.¹²⁹

Gilbert et al. conclude all victims included in the study had not died of the Black Death (unlikely), or the individuals did die of the plague but the teeth were not seeded by *Y. pestis*. This is possible as there is no direct relationship between *Y. pestis* in the blood and its presence in dental pulp. The third conclusion, the Black Death and subsequent plagues were not caused by *Y. pestis* is also a possibility due to the aforementioned discrepancies between classical descriptions and modern clinical descriptions of plague. Gilbert et al. conclude, "...we believe that until an independently replicated, successful study on *Y. pestis* aDNA is undertaken in a suitable, controlled environment...it is premature to claim that aDNA studies have unequivocally proved *Y. pestis* to be the cause of the Black Death and subsequent historical plagues."¹³⁰

Drancourt responded in February 2012 with twin papers disputing Gilbert's criticisms "reporting recovery of the complete genome sequence of *Y. pestis* in skeletons

¹²⁸ M. Drancourt et al. "Detection of 400-year-old *Yersinia pestis* DNA in Human Dental Pulp: An Approach to the Diagnosis of Ancient Septicemia," *Proceedings of the National Academy of Sciences of the USA* 95 (October 1998): 12637-2640. Raoult, Didier et al. "Molecular Identification by 'Suicide PCR' of *Yersinia pestis* as the Agent of Classical Black Death," *Proceedings of the National Academy of Sciences of the USA* 97, No. 23 (Nov. 7, 2000): 12800-12803.

¹²⁹ M. Thomas P. Gilbert et al. "Absence of *Yersinia pestis*-Specific DNA in Human Teeth from Five European Excavations of Putative Plague Victims," *Microbiology* 150 (2004): 349-50, 352, accessed January 2, 2013, <http://mic.sgmjournals.org.ezproxy.lib.utah.edu/content/150/2/341>.

¹³⁰ Ibid. 351-52.

buried during the 1348 epidemics in London... These data leave no doubt that these individuals died of plague... Somewhat disappointing was the observation that the classical *Y. pestis* complete genome lacked any unique virulence trait that might have explained the unique epidemiological features of the Black Death, ...that occurred in the absence of a known rat reservoir.”¹³¹ Therefore, the coauthors proposed that the classical *Y. pestis* strain was not particularly virulent, but rather it had adapted to an additional vector, probably the human louse.¹³²

In 2010, Stephanie Haensch et al. released the results of a study on groups of skeletons from mass graves throughout Europe known to date from the Black Death and subsequent epidemic waves: “We combined analyses of aDNA with detection of the *Y. pestis* F1 antigen. Our results show that historical plague was caused by *Y. pestis* throughout Europe. We also genotyped the causative agent for these mass fatalities... and show that the strains causing mass deaths were unrelated to either *Medievalis* or *Orientalis* biovars.” Haensch et al. propose that “*Y. pestis* spread over Europe during the second pandemic... and that two variants evolved ... may no longer exist.” The discovery that fleas can continuously transmit infection as they feed, with no blockage necessary as previously believed, might also help explain the rapid infection and mortality during the Black Death.¹³³

Paralleling this ongoing dispute, in 2006 Eisen et al. discovered that the Montana

¹³¹ M. Drancourt, “Finally, Plague is Plague.” *Clinical Microbiology and Infection* 18, no. 2 (February, 2012): 105-106, accessed February 1, 2013, <http://onlinelibrary.wiley.com/doi/10.1111/j.1469-0691.2011.03745.x/full>.

¹³² Ibid.

¹³³ Stephanie Haensch et al. “Distinct Clones of *Yersinia pestis* Caused the Black Death,” *PLOS Pathogens* 6, no. 10 (October, 2010): 1-2, accessed February 24, 2014, <http://www.plospathogens.org/article/info%3Adoi%2F10.1371%2Fjournal.ppat.1001134#abstract1>. See also Wynn Parry, “Molecular Clues Hint at What Really Caused the Black Death,” *Livescience*, (September 7, 2011), accessed February 24, 2014, <http://www.livescience.com/15937-black-death-plague-debate.html>.

flea, *Oropsylla Montana*, which also carries bubonic plague, was an effective transmission mechanism for plague. This flea, in contrast to *X. cheopsis* which prefers rats, is immediately infectious, transmits for at least four days postinfection and may remain infectious for a longer period of time because it does not become blocked and die. These criteria fit the requirements of mathematical models created to demonstrate rapidly spreading epizootics and epidemics.¹³⁴ Eisen argues that the human flea, *Pulex irritans* rather than the *X. cheopsis*, is a better candidate for spreading plague because there is no need for a rodent as flea carrier. Adding weight to this theory, in 1998, numerous human fleas, but no rat fleas, were found in the homes of Ecuadorian plague victims.¹³⁵

Body lice have also been presented as viable vectors for the lightning spread of the disease in classical times. Paleomicrobiology has recently demonstrated that most historical cases of plague in Europe resulted from the *Orientalis* strain, the only strain of plague transmitted through body lice. In 2010, a study found that body lice effectively transmitted the plague bacteria in the absence of any other parasite. The study's conclusion is particularly relevant to plague outbreaks in cold climates and the absence of large rat populations. The Black Death struck Russia and Scandinavia in 1350-1351, regions with extremely cold climates, and the transmission of plague to and within these regions is not compatible with current bubonic plague transmission models involving temperature sensitive fleas.

Y. pestis loves cold weather; plague can persist in the environment with no living rodents in burrows, carcasses, soils, grains, dry sputum, flea feces, and buried human bodies. At near-freezing temperatures, it can live for years. Animals

¹³⁴ Rebecca J. Eisen et al. "Early-Phase Transmission of *Yersinia pestis* by Unblocked Fleas as a Mechanism Explaining Rapidly Spreading Plague Epizootics." *Proceedings of the National Academy of Sciences of the U.S.A.* 103, no. 42 (Oct. 17, 2006): 15380, accessed December 12, 2012, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1592641/>.

¹³⁵ Theillmann and Cate, "Plague of Plagues..." 387.

digging through contaminated soil can become infected, initiating new enzootic cycles.¹³⁶

Studies on bacterial survival in animal and human remains show that cold temperatures increase bacterial persistence. Plague was recovered from exhumed human bodies in Southeast Russia and Manchuria after 180 days in winter and thirty days in summer.¹³⁷ More recently, a study in the southwest United States in relation to prairie dog populations appears to validate the argument that plague is a cold weather disease. T. Snall et al. demonstrated that increased precipitation spurs the rate of plague infection among a (rodent) population, while high temperatures appear to lower it. “The mean annual dispersal distance of plague is about ten km... larger colonies are more likely to become infected, but colony area does not affect the infectiousness of colonies.”¹³⁸

Finally, issues of evolving virulence have been identified with *Y. pestis*. Temperature, humidity, the presence of a host and the transmission of the bacillus are all factors involved in determining level of virulence. Some hosts might be able to develop short- or long-term immunity; a person contracting salmonella might develop some immunity to bubonic plague, contracting *Y. pseudotuberculosis* or *Y. enterocolitica* confers similar immunity. There are currently seventy-six strains of three biotypes (local variants) of *Y. pestis*. “Different biovars (biotypes) can lead to epidemics of differing

¹³⁶ “Plague is thought to persist for long periods of time at low to very low levels of prevalence in so-called enzootic cycles that cause little host mortality and involve partially resistant rodents (often called enzootic or maintenance hosts). These long periods are punctuated by occasional outbursts or epizootics (spreading die-offs) among the hosts or epidemics, when the incidence among humans increases. Tamara Ben Ari et al. PLOS, Plague and Climate: Scales Matter, accessed April 1, 2013, www.ncbi.nlm.nih.gov/pmc/articles/PMC317245.

¹³⁷ Elizabeth Casman and Baruch Fischhoff, “Risk Communication Planning for the Aftermath of a Plague Bioattack,” *Risk Analysis*, Carnegie Mellon University 28, no. 5, (2008): 1329, accessed January 9, 2013, <http://www.hss.cmu.edu/departments/sds/media/pdfs/fischhoff/riskcommplanbioattack.pdf>.

¹³⁸ T. Snall et al. “Climate-Driven Spatial Dynamics of Plague Among Prairie Dog Colonies,” *The American Naturalist*, 171, no. 2 (Feb. 2008): 238, accessed May 7, 2013, <http://www.jstor.org/stable/pdfplus/10.1086/525051.pdf>.

virulence and even differing symptoms. The existence of multiple plague biovars increases the difficulty in understanding the relationship between plague epidemics at different times and in places.”¹³⁹

Does It Matter?

Does it matter if the Black Death was bubonic plague, different clinical manifestations of plague or some other disease altogether? Theilmann and Cate note that in one sense this question, from the biomedical viewpoint, is moot: “Only laboratory testing can provide conclusive evidence for a clinical diagnosis.” With only fragmentary chronicles and treatises, vague descriptions, and scant DNA evidence, it is not possible to diagnose the Black Death as a pathological reality in classical times, but its “impact on classical society and its potential impact today”¹⁴⁰ are of vital importance.

Campbell, as a classical economic historian, maintains the critical value of discovering the interconnectivity between adverse weather patterns, epidemic outbreaks among people and animals, and the socioeconomic effects of these crises. “To the pre-enlightenment mind, humans were not omnipotent and nature was not invariably benign...we may live in a more scientific and theoretically informed age, but on the power of humans relative to nature, our more superstitious classical and early modern forbearers may have been wiser than ourselves. Moreover, they inhabited the world we seek to understand so their view of it needs to be taken seriously.”¹⁴¹

More accurate information on the Black Death and subsequent epidemics might provide critical information on “the manner in which epidemic diseases can spread in

¹³⁹ Theilmann and Cate, “A Plague of Plagues...” 381

¹⁴⁰ Ibid. 372.

¹⁴¹ Bruce Campbell, Nature as a Protagonist, accessed November 12, 2012, <http://www.yada-yada.co.uk/podcasts/Blackwell/video/Tawney2008/index.html#>.

different times and places.”¹⁴² Hays maintains that understanding past epidemics is valuable because it helps modern society understand the diffusion of an epidemic throughout a society and might provide information on the physical environment at that time, population density, age distribution and climate. Byrne agrees and adds that, “the study of historical phenomena may help students appreciate the potential for disaster; reflection on the futility of that society’s responses may help to contextualize our own bravado in claiming powers over nature we most certainly do not possess.”¹⁴³ Byrne also advocates research that will address the facile generalizations and images of classical societies in times of crisis.

Gilbert et al. agree for public health and historical reasons. Knowledge of plague etiology and associated mortality is important for combating a contemporary disease. With so many manifestations of the disease, varying rates of dissemination, differences in mortality and morbidity rates, and symptomatology, a better understanding of any plague epidemic is critical for contemporary public health issues. Even though protocols have been established by the World Health Organization to identify the disease early on and to prevent further transmission, and several vaccines are in clinical trials, “these resources would be ineffective if a re-emerged Black Death has a different etiology.”¹⁴⁴

Medical training and the ability to identify symptoms of all clinical manifestations of plague are also critical for public health. Contemporary diagnostic mistakes occur, even in areas of the U. S. where plague is endemic. In 2008, in the mountainous region of California, a seventy-nine year old woman was admitted to the community hospital with a high temperature and blood pressure. Despite exhibiting necrosis on her back and

¹⁴² Ibid. 390.

¹⁴³ Byrne, *Encyclopedia*, xix.

¹⁴⁴ Gilbert et al. “Absence of *Y. pestis*,” 341-42.

some of her extremities, known symptoms of septicemic plague, a diagnosis of pneumonia was made by the clinic. The woman eventually died of septicemic plague because of delays in proper treatment. *Y. pestis* in her initial blood test was listed as a contaminant, even though the hospital was located near a known plague reservoir.¹⁴⁵

Panic over one bubonic plague case can also trump medical knowledge with regard to the bacteria. In August 2013 a young shepherd boy named Isakunov died of bubonic plague in Kyrgyzstan after eating barbequed marmot. A young woman and her two children who had been in contact with the boy were hospitalized with symptoms of bubonic plague, and the authorities assumed that they had contracted it from Isakunov. However, because bubonic plague is not contagious, the woman and her children could not have contracted the disease from the boy. Officials announced the quarantine of more than one hundred individuals who had been in contact with the boy; none of the individuals displayed symptoms of bubonic plague.¹⁴⁶

The ability and speed at which the plague can evolve into new strains is exemplified by an incidence in Madagascar in 1997. A man was brought in from the highlands exhibiting symptoms of malaria and was treated with anti-malarial drugs. With no improvement, the doctors only diagnosed bubonic plague when he developed an inguinal bubo. With further study of the bacteria, it was shown that the patient was infected with a new multidrug resistant strain of *Y. pestis*. As plague had only arrived in Madagascar during the third pandemic, this new strain had evolved within one hundred

¹⁴⁵ David Margolis et al., "Case Report: Septicemic Plague in a Community Hospital in California," *American Journal of Tropical Medicine and Hygiene*, 78, no. 6 (2008): 868-870.

¹⁴⁶ Alec Luhn, "Bubonic Plague Outbreak Feared in Central Asia," *The Guardian*, August 27, 2013, accessed March 19, 2013, <http://www.theguardian.com/world/2013/aug/27/bubonic-plague-outbreak-feared-central-asia>.

years.¹⁴⁷

Levels of virulence, within the same geographic region, but originating in different plague rodent reservoirs, can be mild or deadly. In 1877-1889, the final European outbreak of plague occurred near the city of Astrakhan with 200 people being infected. Victims exhibited low-grade fever and painless swellings, and only one individual died from this plague outbreak. However, just one year later a plague epidemic broke out in a neighboring Cossack village, Vetlianka located near a plague reservoir site of small marmots. There was a one hundred percent mortality rate of the 420 people who contracted the disease.¹⁴⁸ Higher levels of *Y. pestis* virulence are directly related to its host's increased level of immunity. In the ancient plague reservoirs of Kazakhstan and southern Russia, marmots have developed greater immunity to plague, and so *Y. pestis* has evolved even greater virulence.¹⁴⁹

Japan used *Y. pestis* as a weapon in China before and during World War II to spread bubonic plague. In 1921, in north Manchuria, thousands of American, Russian and Chinese were...subjected to bacteriological experiments, "thousands of other people, mostly Chinese, were apparently killed in large plague epidemics started by various Japanese field trials, some of which involved the dropping of porcelain bombs filled with

¹⁴⁷ Little, *Plague and the End of Antiquity, the Pandemic of 541-750*. (Cambridge: Cambridge University Press: 2006), 234-5. Also see Mahery Ratsitorahina et al., "Epidemiological and Diagnostic Aspects of the Outbreak of Pneumonic plague in Madagascar," *Lancet* 355, no. 9198, (January 8, 2000): 111-113, accessed February 12, 2014, http://ac.els-cdn.com.ezproxy.lib.utah.edu/S0140673699051636/1-s2.0-S0140673699051636-main.pdf?_tid=bf6efc30-9381-11e3-807900000aacb362&acdnat=1392167302_3d7cb2095c7e3c16d8a6b2001ac60197.

¹⁴⁸ Wendy Orent, *Plague: The Mysterious Past and Terrifying Future of the World's Most Dangerous Disease* (New York: Free Press, 2003), 175. Stefan Reidel, "Plague, From Natural Disaster to Bioterrorism," accessed November 12, 2012, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1200711/>.

¹⁴⁹ *Ibid. Plague*, 5

plague-infected fleas.”¹⁵⁰ There is also speculation, based on Domaradskij’s memoirs,¹⁵¹ that plague epidemics that struck Ning-bo, China in 1940 developed due to infected fleas, grains of wheat and pieces of cotton dropped by the Japanese.¹⁵²

The greatest threat today is if pneumonic plague were aerosolized and used as a bioterror weapon, particularly in densely populated urban areas. “Aerosolized *Y. pestis*, causing primary pneumonic plague, has been recognized by bioterrorism experts as having one of the highest potentials as a bioterrorism agent due to its extremely high mortality, its high uptake into enzootic and epizootic animals as well as humans, and its ability to be spread over a large area. It has been classified as a Category A select agent by the CDC.”¹⁵³

During the Cold War, the United States military focused on transforming anthrax into a bioweapon, due to its lethality and its durability in the environment, rather than weaponizing plague. The United States bioweapons effort did not focus on plague because U.S. scientists were unable to grow it in bulk, and there was an inverse relationship between the quantity of plague bacteria grown and its virulence. Larger amounts of plague lost their power to infect. There was also a problem of limiting the infection to enemy troops without dissemination to U.S. troops and the project was

¹⁵⁰ Ibid. 212-213. See also Center for Disease Control, “History of Bioterrorism: Plague,” accessed November 6, 2012, <http://www2c.cdc.gov/podcasts/player.asp?f=5#transcript>, and Microbiology, Characterization of a Mouse model of plague after Aerosolization of *Yersinia pestis* CO92, accessed April 2, 2013, <http://mic.sgmjournals.org/content/154/7/1939.full>.

¹⁵¹ Igor V. Domaradskij is one of the designers of the former Soviet Union’s bioweapons program and former deputy director of the Interagency Science and Technology Council on Molecular biology and Genetics.

¹⁵² Orent, *Plague*, 214.

¹⁵³ Stacy L. Agar et al. “Characterization of a Mouse model of Plague after Aerosolization of *Yersinia pestis* CO92,” *Microbiology* 154, no.7 (March 26, 2008): 1940, accessed April 2, 2013, <http://mic.sgmjournals.org/content/154/7/1939.full>. See the same for details on concentration levels and virulence levels in aerosolized pneumonic plague in studies with mice.

scraped.¹⁵⁴

The Soviets understood that pneumonic plague, used as a weapon, would have a short life span in the atmosphere, possibly two hours, but its dissemination in a stadium or subway would be devastating. Unlike anthrax, it is not durable in the environment and so after an attack, buildings would not need to be decontaminated. Within hours, hundreds of thousands would be infected with plague, but the infrastructure would be clean.¹⁵⁵ According to Soviet defector Dr. Alibek, the Soviet Union overcame the problem of maintaining plague virulence and had 1,500 metric tons of plague on hand for use in their intercontinental ballistic missiles.¹⁵⁶

The former Soviet Union during the Cold War was allocated a huge amount of resources for research on the creation of a hyper-lethal, vaccine-resistant, antibiotic-resistant plague weapon. In 1992-1993, Russian scientists “integrated the code for diphtheria toxin directly into a natural plasmid,” guaranteeing stability. When this new plague-diphtheria combination was tested on monkeys it was found to be not only “lethal at lower doses than normal weaponized plague, but also vaccine resistant.”¹⁵⁷ The Russian bacteriologists “know it (plague); they fear it; they made it...into a terrifying weapon.”¹⁵⁸

¹⁵⁴ Stefan Reidel, “Plague...” accessed November 12, 2012, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1200711/>

¹⁵⁵ Ibid. 22-224.

¹⁵⁶ Center for Disease Control, “History of Bioterrorism: Plague,” accessed November 6, 2012, <http://www2c.cdc.gov/podcasts/player.asp?f=5#transcript>.

¹⁵⁷ Ibid. 221.

¹⁵⁸ Ibid. 10. Russian and American views on plague differ due to different experiences with the disease and the low rate of infection transmission in the U.S. “There were 60 cases before 1943, 92% of which occurred in California, 86% in three epidemics (San Francisco 1904, Oakland 1919, and Los Angeles 1924). A full 83% of these cases came from documented human contact. After 1943, there have only been 14 cases from southwestern states. Of these, 64% came from animal contact and another 21% from laboratory exposure. None of the post-1943 set obtained the infection from human contact.” Zeigler, *Contagions* (March 23, 2012)

Any examination of plague, past and present, opens a Pandora's box of historical and contemporary worldviews, environmental science, paleopathology, bioterrorism, epidemiology and paleoclimatology. Parallels exist alongside dichotomies that may never be reconciled. Historical descriptions of plague by classical authors often parallel contemporary symptoms of bubonic, pneumonic, and septicemic plague. However, the dissemination of plague as described in classical accounts appears to contradict contemporary knowledge of plague dissemination rates that are exceedingly slow.

Historic accounts of plague epidemics offer glimpses into possible weather events or biological upheavals that occurred before or during an epidemic, and scientists today have demonstrated that such events could have been precursors to catastrophic epidemics. Historical accounts also include descriptions of various animals the authors assume to have died from plague, either because "buboes were found upon the carcasses,"¹⁵⁹ or because animals died during the human plague epidemics. Scientific studies have shown that in the fourteenth century, different rat species lived further north than previously assumed, that *Y. pestis* can survive for long periods in cold conditions, and research on ancient DNA, paleoclimatology, and dendrochronology is only beginning to link environmental upheavals and weather events to epidemics among both animals and humans. This puzzle of information, worldviews, historical narratives and science are vital in determining the speed and dissemination of modern and historical epidemics, possibly preventing future epidemics.

With all of the scientific research, aDNA testing, studies of dendrochronology and ancient weather patterns there is still no definitive answer to the question: was the Black

¹⁵⁹ *al-nūjūm*, v. 18, 72-72. William Popper translation.

Death bubonic plague mixed with other more virulent strains that have since disappeared? Was it a mix of diseases and was there cataclysmic weather events that spurred the movement of fleas and bacteria into new territory, accelerating dissemination of a disease we cannot identify with mortality and symptoms that match many different diseases? The ambiguous picture that emerges from current research on the Black Death mirrors the uncertain atmosphere that people in Mamluk Egypt and Syria experienced during horrific epidemics when medical treatments were sought, but only a person's immunity could save him.

CHAPTER 3

PARALLELS IN THE CLASSICAL MEDICAL ENVIRONMENT:

DIFFERENT MEDIA, SIMILAR TREATMENTS

Hippocrates, Galen, and Islamic Medicine

A modern reader must guard against smugness about primitive medical practices...the limitations of the physician of late antiquity would be shared by their successors well into the twentieth century, for until the discovery of broad spectrum antibiotics the only weapons available to combat deadly infection were those of the body's own immune system¹⁶⁰

The meaning of the Black Death...could be interpreted as a medical event, an astrological misfortune, or a sign of God's displeasure – and these interpretations could be offered all at the same time and without contradiction.¹⁶¹

Classical Islamic¹⁶² medicine from the beginning of the ninth century onwards was varied and diverse, evolving according to the climatic conditions, social strata of the patients and the physicians, diet, hygiene, gender, living conditions of rural versus urban populations, military activities, migration and crop success or failure. This medical practice developed from a multifaceted social history and was based on both formal learned medicine and on regional traditional practices. Thus, classical Islamic medicine

¹⁶⁰ Rosen, *Justinian's Flea*, 213-214.

¹⁶¹ Faye Marie Getz, "Black Death and the Silver Lining..." 270.

¹⁶² This paper will use Manfred Ullman's definition of Islam as a cultural force, "a culture which has absorbed many different currents within itself and integrated and developed them." *Islamic Surveys*, (Edinburgh: Edinburgh University Press, 1978): xi. Pormann and Savage-Smith also note the need to understand that "Islam was the dominant faith and Arabic the *lingua franca* for all educated and official discourse, so the term Islamic culture or medicine in this context should not be interpreted as applying only to the religion of Islam." Peter E. Pormann and Emilie Savage-Smith, *Medieval Islamic Medicine*, (Washington DC: Georgetown University Press, 2007): 3.

was a conglomeration of all medical practices of the time: Greek medical theories, Prophetic Medicine, and magical or mystical practices. Practitioners might reject or embrace, to varying degrees, specific practices; however, the treatments were essentially the same.

The early Greek medical teachings, particularly those of Galen of Pergamum (d. 200), who reformulated and expanded upon the writings of the Greek physician Hippocrates (d. 377 BC), were adopted and assimilated into an evolving medical practice by Islamic medical practitioners and theoreticians. Hippocrates was the first physician who eschewed the belief that angry gods were responsible for a patient's illness.¹⁶³ His approach was holistic, when treating a patient he maintained that the availability and type of water, mode of life, exercise, diet and work were critical to making a successful diagnosis. He was the first to introduce the temperature, the air, hot and cold winds, and humidity as primary factors in determining which diseases were particular to each season.¹⁶⁴

Hippocrates wrote at length on a physician's need to examine symptoms, find environmental causes, and keep detailed records on the progression and observable traits of a disease. By distinguishing medicine from natural philosophy, superstition and religion he set the very early foundations for medicine to develop as a systematic science.¹⁶⁵ He developed the humoral system of medicine in which a bad mixture (*dyscrasia*) of bodily fluids or humors needed to be rebalanced for wellness (*eucrasia*).

¹⁶³ The idea of an angry God sending epidemics as a punishment down upon his people continued to exist until well into the nineteenth century though.

¹⁶⁴ A.Z. al-Hassan, *Science and Technology in Islam* (Beirut: UNESCO Publishing, 2001): 327.

¹⁶⁵ Mathew Falagas et al. "Science in Greece: From the age of Hippocrates to age of the Genome," *The FASEB Journal* 20, no. 12 (October, 2006): 1946, accessed February 10, 2014, <http://www.fasebj.org/content/20/12/1946.full>.

These four humors, not visible to the human eye but based on visible substances, according to Hippocrates, included air (blood), fire (yellow bile), earth (black bile) and water (phlegm).

Galen, a Greek physiologist, philosopher and writer, took Hippocrates's humoral theory further and proposed a more comprehensive model. He believed that a disease-causing imbalance within the body could be pinpointed to one organ, not diffused throughout the entire body, as Hippocrates believed. He maintained that neither the rationalist nor the empiricist school¹⁶⁶ alone held the answer to successfully treat disease, and he "silenced most competing voices by developing and further refining the all-encompassing system of humoral pathology to take account of new material and ideas."¹⁶⁷

Galen's theory of the four basic elements that he inherited from Aristotle, suggested that all substances are composed of the basic elements of fire, water, air and earth. Each of these elements has its own attribute: fire is hot, water is cold, air is dry and earth is wet. Food and drink also have their own properties and after digestion, the four humors or fluids originally proposed by Hippocrates, result. Galen then associated personality types and physical traits with these humors, elements and attributes. He also introduced the idea of six nonnaturals external to the body that an individual can control and adjust to rebalance the humors. A patient can control the hours he sleeps and wakes, his exercise and rest, retention and evacuation, and mental states such as anger and joy

¹⁶⁶ At this time the two major philosophical schools influencing medicine and science were the empiricists and the rationalists. The empiricist school believed a competent physician could use only his own experience to successfully treat a patient. The rationalists believed that experience in addition to the study and application of medical theories was the best approach. Galen of Pergamum, University of Dayton, accessed November 13, 2012, <http://www.campus.udayton.edu/~hume/Galen/galen.htm>.

¹⁶⁷ Peter E. Pormann et al., *Medieval Islamic Medicine*, 9-10.

through his environment.¹⁶⁸ Galen believed that clean water, certain types of food and drink, and fumigants for the air all played a role in an individual's well being.

One humor dominates within an individual depending on external factors such as climate, elevation, occupation, gender and the weather. These could vary according to the seasons and the rise and fall of temperatures. Phlegm usually increases in winter but falls in the summer. Blood intensifies in the spring and summer, and both yellow and black bile increase in the autumn. The effect of the seasonal factors on the humors result in four temperaments: sanguine, phlegmatic, choleric, and melancholic. This combination of elements, humors, properties and temperaments was the foundation of Galen's contrary system of therapy for sickness. A wet and hot illness is treated with nutrients or compounds that possess the opposite properties of dry and cold.¹⁶⁹ Aside from correcting humoral balance through a counter-balanced diet, an excess of one of the humors, such as blood, could be rebalanced through venesection (also called phlebotomy) or cupping, placing a heated cup onto lightly lacerated skin. The cups would draw the blood to the heated area of skin; it was believed that the toxins or corrupted matter in the patient's body were then drawn out. Cupping was recommended more often on men than women as it was believed that women suffered less than men from ailments such as gout, arthritis, epilepsy and apoplexy because they rid themselves naturally of excess blood every month during menstruation.¹⁷⁰

Galen addressed one of the major problems of the miasma theory: the uneven transmission of disease during epidemics. Miasma theory maintained poisonous air with

¹⁶⁸ Ibid. 44.

¹⁶⁹ Michael Dols, *Medieval Islamic Medicine, Ibn Riḍwān's Treatise "On the Prevention of Bodily Ills in Egypt."* (Berkeley and Los Angeles: University of California Press, 1984): 9-16. Galen used Dioscoride's *Materia Medica (On Medicinal Substances)*, noting the difference between simple and compound drugs.

¹⁷⁰ Pormann et. al, *Medieval Islamic Medicine*, 43-44.

decaying matter suspended in it, usually associated with unhealthy places and people, decomposing bodies or vegetation, marshes, rotting fruits or vegetables, spread disease. However, if the air was unhealthy throughout a region there was no satisfactory explanation for the irregularity of infection among people during an epidemic. Why did one household become infected and filled with death while another escaped entirely? Galen posited that an individual's humoral makeup determined one's predisposition towards infection and this predisposition, in conjunction with the pestilential elements, explained why some were infected during an epidemic and others were not.¹⁷¹

This all inclusive and complex theory of illness and treatment, created by Hippocrates and expanded upon by Galen, was probably transferred to Arab and Muslim culture via Christians in Nisibis (now Nusaybin in southeastern Turkey), Seleucia and Ctesiphon (near modern Baghdad) and Gundishapur (western Iran).¹⁷² These groups brought Greek scientific and medical knowledge regarding disease, the humors, diet and simple and compound medical treatments with them. By the mid-sixth century they had settled in what had become the Persian cultural and academic capital of Gondeshapur. The Arabs conquered this great city in 638 and later under the fifth 'Abbasid Caliph Harūn al-Rashīd (763-809), Hellenistic art, architecture, philosophy and science were assimilated into the expanding Islamic Arab culture.¹⁷³ Persians, Indians, Arabs, Greeks, Jews and Christians worked side-by-side translating Sanskrit and Greek into Arabic, Syriac and Pahlavi, and this process of translation and assimilation opened the Islamic

¹⁷¹ A.Z. al-Hassan, *Science and Technology*, 328-329.

¹⁷² Pormann et al., *Medieval Islamic Medicine*, 16-17.

¹⁷³ Dols, "Prevention of Bodily Ills..." 3-4.

world to the classical cultures of both Greek and India.¹⁷⁴ “This theoretical framework for medical practice was not linked to a specific faith; Muslims, Jews and Christians could all accept and partake in a secular scientific discourse.”¹⁷⁵

In 750-762 the ‘Abbasid rulers replaced the Umayyads and the Islamic capital was transferred from Damascus to Baghdad. The ‘Abbasids, particularly Harun al-Rashid and his second son, Ma’mun (r. 813-833), and other ‘Abbasid princes sponsored the transcription and translation of a rich body of Greek works from Greek and Syro-Aramaic into Arabic. “By the end of the ninth century most of the important works of the ‘Hippocratic Corpus,’ the writings of Dioscorides, Galen and others in the Greco-Roman period up to the Byzantine physician Paul of Aegina (Būluṣ al-Ajānīṭī) of Alexandria (fl. 640) had been translated.”¹⁷⁶ Jews and Christians moved into and advanced through the medical and legal professions that developed around the new courts of the ‘Abbasid rulers.

However, classical Islamic physicians did not simply transcribe and translate the Greek medical works, they explored and expanded upon drug and diet therapy and man’s relation with the environment. Their emphasis was on preventative treatment through exercise, diet, and the appropriate use of Galen’s contrary system of medicine based on many natural components. Second best treatment involved the use of simple drugs, and the final and least desirable treatment was the use of compounded medicines.¹⁷⁷ Much of this medical and scientific material was translated by Ḥunan ibn Ishāq (809-873), a

¹⁷⁴ Noga Arikha, *Passions and Tempers, A History of the Humors* (New York: Harper Collins, 2007), 45-49.

¹⁷⁵ Tensions still existed, for example, the anti-Semite al-Jawbarī (fl. 1240s) and women, who practiced magic, were particularly vilified. Peter E. Pormann et al., *Medieval Islamic Medicine*, 103-104

¹⁷⁶ Sam Hamarneh, “Ecology and Therapeutics in Classical Arabic Medicine,” *Sudhoff’s Archive*; Bd. 58, no. 2, (1974 Quartal): 166, 169.

¹⁷⁷ *Ibid.* 166.

celebrated Persian physician fluent in Arabic, Greek, Syriac and Persian. In addition to scientific literature, he transcribed and translated astrological and alchemical material into Arabic.¹⁷⁸

The medical environment of the time was fluid and encompassed numerous theories and treatments taken from earlier Greek medicine. This was the time of many great polymaths including al-Rāzī (860-925), a Persian polymath responsible for more than 200 works on medicine, chemistry, alchemy, and philosophy. He was director of the hospital in Baghdad, and he wrote the twenty-five-volume *Kitāb al- ḥāwī fī al-ṭibb* (*The Comprehensive Book on Medicine*) that was translated into Latin in 1249.¹⁷⁹ In al-Razi's multifaceted approach to research and writing, which prevailed in this period, he relied not only on Hippocrates and Galen, but also on Greek physician Rufus of Ephesus (80-150), Oribasius,¹⁸⁰ Paulus of Aegina and many Indian sources. Al-Razi also explored the idea of infectious disease, was the first to notice that in the springtime, when roses were in bloom, many were afflicted with upper respiratory symptoms, and he is famous for a *Kitāb fī al-jadarī wa al-ḥaṣḣa* (*A Monograph on Small Pox and Measles*).¹⁸¹ This treatise was one of the earliest and most influential on the subject. It was translated into Latin in the early eighteenth century when the practice of variolation, an early form of inoculation, was common in the Ottoman Empire. This practice, used for at least two

¹⁷⁸ Ibid. 49-56.

¹⁷⁹ The Jewish Virtual Library, "Rhazes," accessed November 15, 2012, <http://www.jewishvirtuallibrary.org/jsource/biography/Razi.html>. This enormous manual, consisting of twenty volumes was translated into Latin in the fifteenth century. It is a collection of extracts from every medical book al-Rāzī studied and notes on his medical experiences. The work was so enormous that he died before its completion and his students finished the manual and gave it final form. Thomas Arnold and Alfred Guillaume, *The Legacy of Islam* (London: Oxford University Press, 1960), 325.

¹⁸⁰ Oribasius was a leader among the physicians in Alexandria in the mid-fourth century and the most comprehensive of the medical encyclopedists. Owsei Temkin, (JHU Press, 1991), 214.

¹⁸¹ U.S. National Library of Medicine, NIH, "Al-Razi, the Clinician," accessed November 16, 2012, http://www.nlm.nih.gov/exhibition/islamic_medical/islamic_06.html.

centuries in China, had traveled west with Circassians who introduced it to Georgia, Persia, the Levant and Egypt. Despite experiencing repeated smallpox outbreaks, Europe was the last holdout to adopt the practice from the Ottomans in the early eighteenth century.¹⁸² He also emphasized the need to preserve health, and explored the effects of drugs and diet on bodily organs and “(what we now term) their side effects.”¹⁸³

With regard to plague, Al-Razi was the first to quote the work of Aaron the Priest (possibly Harun ibn al-A’yan al-Qass), a seventh century Alexandrian doctor who wrote *The Medical Pandects*.¹⁸⁴ Al-Razi quotes Ahrun’s description of the spitting of blood, possibly referring to the infamous pneumonic plague symptoms observed in the earlier Plague of Justinian and after cycles.¹⁸⁵ He also describes the plague in his *Kitāb fī al-ṭibb* (*Book of Medicine*), but it is unknown if “his description was the product of personal observation or copied from an earlier work

Another great physician, Al-Majūsī (d. 994), known as Haly Abbas in Europe, was born into a Zoroastrian family and worked for the Buyid Amir of Baghdad, ‘Aḍud al-Dawla (949-983). He surveyed all the great medical works including Hippocrates, Galen and al-Razi and criticized al-Razi’s *Book on Medicine* as being disorganized, excessive in length, and prohibitively expensive. Al-Majūsī wrote his monumental *al-Kitāb al-malakī* (*The Royal Book*), a concise and systematic encyclopedia divided into two sections on medical theory and practice, to counter what he believed was al-Razi’s excessively long

¹⁸² Basil Aboul-Enein et al. “Smallpox Inoculation and the Ottoman Contribution: A Brief Historiography,” *TPHA Journal* 64, no.1 (Winter, 2012):12-13, accessed February 12, 2014, https://www.academia.edu/1546580/Smallpox_inoculation_and_the_Ottoman_contribution_A_brief_historiography.

¹⁸³ Sam Hamarneh, “Ecology and Therapeutics...” (1974): 169-170.

¹⁸⁴ Cyril Elgood, *A Medical History of Persia and the Eastern Caliphate* (Cambridge: University Press, 1951), 99-100.

¹⁸⁵ Dols, *The Black Death*, 29-30.

work.”¹⁸⁶

Al-Majusi further explored certain diseases, including leprosy, scabies, consumption and epidemic fever; he argued that epidemic fever appears to be transmitted to others if an individual sits in a closed room or house with an infected person, or down wind from one who is ill. For every illness involving corruption of the air, a healthy person should sit up wind or distance himself from the afflicted. He further expanded upon the idea of epidemic illness; those having a humoral predisposition (*ist ‘dād*) to illness exposed to unhealthy air will most certainly become ill.

Extremes in seasonal weather could intensify the effects of the miasma; excessive heat, cold, rain or dryness can affect those with corrupt humors and these individuals will succumb during an epidemic.¹⁸⁷ Local pestilential vapors and exhalations (*bukhārāt*) rising up from stagnant waters, garbage, masses of dead soldiers, and dead animals that died from a pestilence ensure massive sickness and death for those who inhale these vapors. Scattering myrtle or roses in homes or fumigating them with camphor and sandalwood would help prevent plague.¹⁸⁸

Plague treatments included the use of various simple and compound substances, the most relied upon compound mixture was theriac, a complicated recipe composed of up to “eighty simples including cinnamon, saffron, rhubarb, pepper, ginger, and significantly – opium; together with wine and honey, these were mixed into a pulp to

¹⁸⁶ U.S. National Library of Medicine, National Institute of Health, “Islamic Culture and the Medical Arts, the Great Sytematizers,” accessed on November 16, 2012, http://www.nlm.nih.gov/exhibition/islamic_medical/islamic_07.html.

¹⁸⁷ A.Z. al-Hassan, *Science and Technology*, 328-329.

¹⁸⁸ Manfred Ullman, *Islamic Surveys* (Edinburgh: Edinburgh University Press, 1978), 90.

form a thick, syrupy, theriac electuary.”¹⁸⁹ Sorrel, sour pomegranate, and citrus fruits, were believed to be effective in preventing and curing plague while Armenian earth, a reddish clay, is often cited for preventing and treating plague boils. Galen initially wrote of its efficacy in treating wounds and ulcers, and then advised using it for plague boils. Ibn al-Wardi, noted with the disdain the futile curative efforts of the nobles of Aleppo and sums up the most popular treatments of that period:

Oh, if you could see the nobles of Aleppo studying their inscrutable books of medicine.¹⁹⁰ They multiply its remedies by eating dried and sour foods. The buboes that disturb men’s healthy lives are smeared with Armenian clay¹⁹¹. Each man treated his humors and made life more comfortable. They perfumed their homes with ambergris and camphor, cyperus and sandal. They wore ruby rings and put onions, vinegar, and sardines together with the daily meal. They ate less broth and fruit but ate the citron and similar things.¹⁹²

Ibn Sīnā (Avicenna) (980-1037), one of the greatest polymaths of his time, wrote more than 450 treatises covering astronomy, metaphysics, medicine, theology and poetry. His interpretation of Aristotelian thinking on logic, metaphysics and psychology became established in Europe, and he believed, like Aristotle, that the seat of the rational soul was the heart. His most famous work, the medical encyclopedia *al-Qanūn fī ṭibb* (*The Canon of Medicine*) was the primary textbook on medicine in the east and west for seven centuries. It covered “general medicine, simple drugs, diseases affecting all parts of the

¹⁸⁹ Christiane Nockels Fabbri, “Treating Classical Plague: The Wonderful Virtues of Theriac,” *Early Science and Medicine* 12, No. 3 (2007), 252, accessed March 6, 2013, <http://www.jstor.org/stable/pdfplus/20617676.pdf>.

¹⁹⁰ Michael Dols notes that Ibn al-Wardi is probably referring to Ibn Sina’s *Canon*, which was the primary source for plague treatment in the late classical period.

¹⁹¹ Armenian clay is found in Armenia; it is a deep red mineral medicament containing large amounts of iron oxide. It was used to treat ulcers, reduce swellings and as an astringent for wounds. Galen advised its use on plague boils and it was often mixed with water and vinegar and drunk as a plague preventative. Dickran Kouyjian, *Near Eastern Numismatics*...453. Maqrizi may be referring to Armenia clay when he noted that during the Black Death in Cairo, “some people devoted themselves to coating their bodies with clay.” Dols, *The Black Death*, 102-103.

¹⁹² In Dickran K. Kouymjian, ed. *Near Eastern Numismatics*... 452-453.

body from the head to the feet, special pathology and pharmacopoeia.”¹⁹³ Gerard of Cremona translated the five volumes of this monumental work into Latin in the late twelfth century, and it became the basis of all medical instruction in European universities.¹⁹⁴

In Ibn Sina’s *Canon*, his explanations of epidemics show that he was able to accurately “relate the plague symptoms in Arabic to their Greek terminology and to give relevant medical treatment and remedies.”¹⁹⁵ With regard to outbreaks of plague, Ibn Sina was the first to note that a plague epidemic was imminent when rats and “subterranean animals flee to the surface of the earth, behave as if they were intoxicated, and die.”¹⁹⁶ In the classical period under discussion, it was believed that many animals, but particularly those living underground, perceived evil miasmas before they became apparent to men. As treatment for plague, Ibn Sina recommended smearing Armenian clay on plague buboes and he advocated bloodletting that was believed to reduce fevers caused by excess blood in the body.¹⁹⁷ In addition, homes needed to be perfumed with ambergris, camphor, sandal and Cyprus to purify the pestilential air that might be within. Diets needed to include vinegar, onions, sardines and citron and the wearing of ruby rings was also considered an effective plague repellent.¹⁹⁸

The complexity and the interrelationship between the humors, the nonnaturals and

¹⁹³ Arnold and Guillaume, *The Legacy of Islam*, 329.

¹⁹⁴ Ibid. “Avicenna,” accessed November 15, 2012, <http://www.jewishvirtuallibrary.org/jsource/biography/Avicenna.html>.

¹⁹⁵ Dols, *Black Death*, 87.

¹⁹⁶ Ibid. 89. Dols is a bit disdainful when he notes that despite Ibn Sina’s description of rats fleeing before a plague epidemic, behavior that matches that of a modern plague epizootic, Ibn Sina did not recognize the “causal relationship between rats and plague.” An unfair criticism when the identification and causal relationship between the plague bacillus, rats and humans was not identified until the late nineteenth century with the advent of medical bacteriology.

¹⁹⁷ Dols, *Black Death*... 103, 105.

¹⁹⁸ Dickran Kouyjian, *Near Eastern Numismatics*, 452-453.

an individual's predisposition to unbalanced humors and thus, illness or disease, was expressed by Egyptian physician and scientist Ibn Riḍwān (d. ca. 1068) in his *Risālah fī daf' mudirr al-abdān bī-arḍ miṣr* (*On the Prevention of Bodily Ills in Egypt*). He defined an epidemic illness as follows: "The meaning of an epidemic illness is that it encompasses many people in one land at one time. One type is called *al-mawtan* (death) in which the mortality rate is high." He continued to group the causes of epidemic into four categories: a change in the quality of the air, the water, food or psychic events. Psychic events could include anxiety "of possible famine, ...passing a battlefield of dead bodies, polluted swamps or stagnant water."¹⁹⁹ If several of these things occurred at one time, for example, dirty or odiferous water in conjunction with anxiety over starvation, than there would be a higher mortality rate.

Ibn Ridwan also explored the interconnectedness of various natural disasters coinciding with pestilence in Egypt in the years between 1055 and 1062. Ibn Ridwan linked the prevalence of dead bodies from wars and subsequent famines to the contamination of the air and the water. Although he did not link weather and environmental oddities of this period to pestilential outbreaks he noted the inundation of the Nile during these years was either too low or too high, wreaking havoc on agriculture.²⁰⁰

Ibn Rushd, (1126-1198), known as Averroes in the west, was born in Andalusia and was a philosopher particularly interested in Aristotle. He was a jurist and a physician who effectively used Galen's theory of miasma and an individual's humoral predisposition to disease to explain the concept of disease transmission (*i'dā'*) in Egypt.

¹⁹⁹ Pormann et al., *Medieval Islamic Medicine*, 58-59.

²⁰⁰ Ibid. 58-59, and Dols, "Medieval Islamic Medicine, Ibn Riwwan's Treatise," 112-114.

He believed that because of Egypt's geographic position as the crossroads of pilgrimage, commercial trade and empire, and due to its excessive heat and humidity in the summer and autumn months, along with the annual inundation of the Nile, the "general temperament of people in Egypt is poor, and promotes a weak nature and a predisposition to corruption and to illness in human beings."²⁰¹ He suspected that in general, the land was susceptible to decay, and so overall it was an unhealthy region, with spring being the most optimal season for balanced humors in most people.

Ibn al-Nafis (1213-1288), an Arab physician born in Damascus and famous for his studies on pulmonary circulation wrote a commentary on Ibn Sina's *Canon*, *Sharḥ tashrīḥ al-qānūn*. In this work he linked the distinctive plague buboes with plague infections and told of plague occurring often in Ethiopia, where it was called *jaghalah*.²⁰² He noted the importance of astrological signs, weather and contaminated soil and water as the cause of plague miasma:

The pestilence resulted from a corruption occurring in the substance of the air due to heavenly and terrestrial causes. In the earth the causes are brackish water and the many cadavers found in places of battle when the dead are not buried, and land which is water logged and stagnant from rottenness, vermin, and frogs. As regards the heavenly air, the causes are the many shooting stars and meteorites at the end of summer and in the autumn, the strong south and east winds in December and January, and when the signs of rain increase in the winter but it does not rain.²⁰³

Though contagion as a principle was not emphasized by Greek physicians or by most classical physicians, two Muslim physicians in Spain in the fourteenth century are known for their clinical observations of symptoms during the Black Death and their doubts that miasmatic air conveyed epidemics from place to place. Historian and

²⁰¹ Arikha Noga. *Passions and Tempers*, 53, 69.

²⁰² Dols, *Black Death*...15.

²⁰³ *Ibid.* 88-89.

physician Ibn al-Khaṭīb (1313-1374) wrote his treatise on the plague, *Muqni‘at al-sā‘il ‘an al-maraḍ al-hā‘il* (*The Satisfaction of the Questioner on the Appalling Illness*) following the outbreak of the Black Death in Granada. He maintained that once the “illness enters the body of a man – depending upon the lunar and spherical conditions, and depending on the nature of the person, it drives the illness deep within or expels it. The *Pneuma*, the vital spirit, is either extinguished or improved.”²⁰⁴

Ibn al-Khatib also argued that contagion was evident during plague outbreaks and the hadith prohibiting flight from a plague epidemic actually contradicted one of the underlying principles of the Shariah,²⁰⁵ that of maintaining the safety of the Islamic community. “For Ibn al- Khatib, any Prophetic traditions and prior legal arguments that denied contagion had to yield before the empirical evidence that supported the contagious nature of the plague. To think otherwise would be to expose the Muslim community to needless danger (of contracting plague) and to go against the underlying principles of the sharī‘a.”²⁰⁶

The existence of contagion is established by experience, study, and the evidence of the senses, by trustworthy reports on transmission by garments, vessels, ear-rings; by the spread of it by persons from one house, by infection of a healthy seaport by an arrival from an infected land...by the immunity of isolated individuals and ...nomadic Bedouin tribes of Africa...It must be a principle that a proof taken from the Traditions has to undergo modification when in manifest contradiction with the evidence of the perception of the senses.²⁰⁷

Muḥammad ibn ‘Aī al-Shaqūrī, a student of ibn al-Khatib and also a physician in

²⁰⁴ Ullman, *Islamic Surveys*, 93.

²⁰⁵ The divine law of Islam is based on the Quran and the Sunnah. The Sunnah is the life examples of the Prophet as contained in the hadith, which are his reported sayings and actions. Islamic Tradition (hadith, Sunnah) and the Quran evolved together between 700-900, and Islamic Tradition is a theological elaboration of the Quran, fashioned according to cultural practices in the ‘Abbasid period.

²⁰⁶ Justin Stearns, “Contagion in Theology and Law: Ethical Considerations in the Writings of Two Fourteenth Century Scholars of Naṣrid Granada,” *Islamic Law and Society* 14, No. 1 (2007), 111, accessed April 16, 2013, <http://www.jstor.org/stable/pdfplus/40377927.pdf?acceptTC=true>.

²⁰⁷ Arnold and Guillaume, *The Legacy of Islam*, 340.

Granada during the Black Death wrote a small book in line with the theologians stressing the importance of patience and prayers to God. In addition to the appropriate medical treatments, he discusses the impurity of the air during plague epidemics and the negative influence this has on people suffering from respiratory problems in particular. The most important action people can take is to improve the air in their homes; he suggests using sandarac (juniper resin), incense, styrax, myrrh, and opening windows to allow sufficient sunlight into the dwelling. During plague outbreaks people should avoid public baths, and use bloodletting only with the advice of a doctor. With regard to magical treatments, Al-Shāqurī advises adults to carry a hyacinth can to ward off plague. For children, a piece of elephant tusk should be hung around his/her neck.²⁰⁸

Ibn al-Khātima (d 1369), wrote a treatise specifically on the Black Death that struck Almeria in Spain (1348-49). His clinical observations and descriptions of symptoms were detailed with notes on patient contact and transmission, but no explicit mention of contagion.

The result of my long experience is that if a person comes into contact with a patient, he is immediately attacked by the disease with the same symptoms. If the first patient expectorated blood, the second will do so...if the first developed buboes, they will appear on the other in the same places. If the first had an ulcer, the second will get the same; and the second patient likewise transmits the disease.²⁰⁹

Ibn al-Khatimah also recommended bloodletting for plague victims because it was believed that pestilential air “increased the mass of blood that the heart could not control.” He also recommended cupping and venesection as a plague treatment and a preventative measure. Initially the patient must be given “two ounces of both vinegar syrup and rose syrup and then be bled where the pain was most severe, but if the illness

²⁰⁸ Ullman, *Islamic Surveys*, 92-93.

²⁰⁹ *Ibid.* 341.

recurred or the patient had been in contact with the sick, there was little chance of curing him.”²¹⁰

Prophetic Medicine and Hadith

Classical Islamic medicine, a conduit and a venue for the transcription and innovation of the Greek medical theories, mirrors “Prophetic Medicine” (*al-Ṭibb al-Nabawī*). Prophetic Medicine, a special branch of Islamic Tradition, utilizes the Greek medical theories available during the evolution of medicine in the classical period. It flourished alongside Greek-based medicine and different authors, mainly theologians, presented various views on Greek treatments, most of which were acceptable within the realm of Prophetic Medicine. While it is based upon religious authority, and the belief that God “will provide a cure for every illness, this did not mean that people should remain passive, they still needed to discover and employ that remedy.”²¹¹ Islamic Tradition as related to medicine was often based on the humoral theory of Galen, and Muhammad did not counsel passivity in the face of illness. Prophetic Medicine is “medicine whose basic paradigms, concepts, values, and procedures conform to or do not contradict the Qur’an and Sunnah.”²¹²

It is not specific medical procedures or therapeutic agents used in a particular place or a particular time. Islamic medicine is universal, all-embracing, flexible, and allows for growth and development of various methods of investigating and treating diseases within the frame-work described above.²¹³

Prophetic Medicine was based on Greek humoral theory in addition to various

²¹⁰ Dols, *Black Death*...105-106.

²¹¹ Ibid.

²¹² The hadith is the life practices of the Prophet as contained in the hadith, with various interpretations depending upon the author.

²¹³ Michael Monette, “The Medicine of the Prophet,” *CMAJ* 184, no. 12 (August 7, 2012), accessed Dec. 18, 2012, <http://www.cmaj.ca/content/184/12/E649>.

authors' perceptions of what Islamic Tradition advocated regarding health practices. Because the Quran and Islamic Tradition evolved together ca. 700-900 and incorporated moral principles, legal formulations, and popular wisdom, the resulting conglomeration in Prophetic Medicine was all embracing. Treatments often mirrored those of Greek medicine or earlier regional medical treatments and were collected, recorded and then divided by subject with the most famous collections being those of al-Bukharī (194/810-256/870), al-Muslim (201/817-260/874), and al-Tirmidhī (208/824-278/892).²¹⁴ Just as Greek medicine made recommendations and restrictions on diet, health and hygiene, first aid, and treating minor ailments, so did Prophetic Medicine.

Religious scholars developed this system of medicine as a guide for a healthy medical routine and therapy that they believed acceptable to pious Muslims. The underlying premise of this system was that a “diagnosis based on physical causes producing disease suggests the notion of causality which would limit the omnipotence of God.”²¹⁵ However, Prophetic Medical practitioners were not in competition with classical Islamic physicians, both were from the same source (the science of late antiquity) expressed in different media and the use of magic was accepted in both practices. Prophetic Medicine, like its Greek counterpart, focused on appropriate foods and simple medicines as preventative or curative measures, and also on bloodletting and cupping.²¹⁶ Prophetic Medical practitioners advocated proper Islamic conduct and invocations to God in addition to the use of Greek medical theories and treatments (even if not explicitly

²¹⁴In descending order of reliability, additional hadith compilations include al-Nasā'ī (829-915), Abu Dawud (817-889) who collected 50,000 hadith, but included only 4,800 as reliable in his collection, and Ibn Mājah (824 – 887). Husain F. Nagamia “Prophetic Medicine, A Holistic Approach to Medicine,” *The International Institute of Islamic Medicine*, accessed November 19, 2012, <http://www.iiim.org/Files/Articles/Prophetic%20Medicine%20Final.pdf>.

²¹⁵Pormann, *Medieval Islamic Medicine*, 72.

²¹⁶Ibid. 72-73.

calling them by name) in order to retain or regain ones health.

Penelope Johnstone notes that the “‘medicine of the Prophet’ became an integral part of the life of the Islamic community, not only complementing the ‘scientific’ medical tradition, but in a sense providing the framework and affecting the very human element for that medical tradition.”²¹⁷ The Prophetic approach to medicine, just like Greek humoral theory, aimed at treating the body, mind, and spirit simultaneously because all three were integral components of health. Prophetic Medicine employed the same treatments, in a different guise, as Greek medicine and Hippocrates’ earlier holistic approach of treating the entire body and searching out environmental culprits.

Religious scholars produced Prophetic Medical treatises for different reasons and most accepted what they believed to be the distinct practices of the Greek tradition, some more than others. Ibn Taymīyah (1263-1318), a student of the Hanbālī School of *fiqh* (Islamic jurisprudence),²¹⁸ eschewed Greek logic and theory and yet like many medical practitioners of the time, he was pragmatic with regard to the sick. He saw the benefit in using any means necessary to alleviate a patient’s discomfort. He maintained an attitude of ambivalence towards humoral theory because he observed that people often regained their health with or without medical treatment. Ibn Taymiyah “did not consider medical treatment as religiously necessary but only permissible on the grounds of the uncertainty of its medical efficacy; not only do people get well without medicine, but often they do not get well with medical treatment either.”²¹⁹

Prophetic Medical tracts on the health practices attributed to Muhammad mirrored

²¹⁷ Ibn Qayyim al-Jawziyya (translated by Penelope Johnstone), *Medicine of the Prophet*, (Cambridge, UK: Islamic Texts Society, 1998), xviii.

²¹⁸ This school of thought is based exclusively on the Quran and Sunnah, with no room for *ijmā’* (consensus), or *qiyas* (analogy).

²¹⁹ *Ibid.* 51

the practice advocated in Greek medicine. The only difference between the two guises of classical and Prophetic Medicine was the issue of God's power and providence. This conglomeration is reflected in the work of Al-Dhahabī (672/1274-748/1348), a follower of the Shāfi'ī School of fiqh²²⁰ who used many sources on hadith in addition to the works of Hippocrates, Aristotle, Plato, Dioscorides,²²¹ Galen, al-Razi, Ibn Sina and others. He discussed humoral theory in detail, praised Hippocrates and Galen as “the two greatest physicians,” and concluded, like many Prophetic practitioners, that it is God who reveals and inspires medical knowledge. Al-Dhahabī also argued against the use of what he considered magical treatments such as cupping, magical invocations and talismans against the Evil Eye.²²² However, like Hippocrates and Galen, he accepted food remedies as simple medicines, or used as talismans, “whoever eats seven dates between dawn and dusk will have no harm come to him between dawn and dusk,” and “whoever eats honey three times a month will not meet with any great disaster.”²²³

Jalāl al-dīn al-Suyūṭī (d. 908/1505), polymath and Shāfi'ī scholar, took a different approach in his *al-Manhaj al-sawī wa manhal al-rawī fī al-ṭibb al-nabawī* (*The Correct Method and Refreshing Source for the Medicine of the Prophet*). He based his work primarily on Syrian physician Ibn al-Nafīs' (d. 686/1288)²²⁴ popular commentary on Ibn Sīnā's *Canon*. Al-Suyuti explored such topics as simple medicines (honey, pomegranate,

²²⁰ This school of thought stipulated religious authority to four sources which include, in descending order of validity, the Quran, the Sunnah, consensus and analogy.

²²¹ Dioscorides was a Greek physician, botanist and pharmacologist who wrote the five-volume *De Materia Medica* on herbal medicinal substances. See Dioscorides: *De Materia Medica*, accessed February 27, 2014, http://penelope.uchicago.edu/~grout/encyclopaedia_romana/aconite/materia medica.html.

²²² Pormann et al. *Medieval Islamic Medicine*, 72-73.

²²³ Ibid. 144. There are several hadith with regard to the Prophet's belief in honey as a curative, see 5356-5360, SunniPath, *The Book of Medicine, The Sahih Collection of Al-Bukhari*, accessed Dec. 20, 2012, <http://www.sunnipath.com/library/Hadith/H0002P0079.aspx>.

²²⁴ Ibn Nafīs identified plague buboes and linked them to plague infection in his commentary on Ibn Sīnā's *Canon*. Dols, *Black Death in the Middle East*, 15.

etc.), anatomy, bloodletting, and certain ailments such as headaches and melancholy, and he expressed doubt as to the effectiveness of amulets or magic.

One of Ibn Taymiyah's students, Ibn Qayyim al-Jawzīyyah, a practicing physician well versed in Quranic commentaries (*tafsīr*), hadith, Islamic jurisprudence, and the Sunnah, wrote extensively on acceptable uses for cupping, magical invocations and talismans to guard against the Evil Eye. In one of the most popular manuals on Prophetic Medicine, *al-Ṭibb al-nabawī (Medicine of the Prophet)*, Ibn Qayyim focuses on the use of honey, cupping, cauterization, poison, magic, emesis, and he addresses treatment and incantations for the Evil Eye. In addition to citing physicians from Muslim Spain, Ibn Qayyim mentions more Muslim and Jewish physicians trained in humoral theory than al-Dhahabi, and he explores the works of al-Razi and Ibn Sina in particular.²²⁵ Despite his acceptance of many magical practices, Ibn Qayyim was opposed to the use of astrology, augury, and alchemy. He believed the increasing popularity of the occult, particularly astronomy, undermined the traditions of Islam. He noted the history of court astrologers making incorrect predictions and the arbitrary contradictions of the principles of astrology in order to refute the practice's validity.²²⁶

Ibn Qayyim demonstrated the confluence of Prophetic Medicine and humoral theory by describing sickness as being either simple or compound. If simple, it is hot, cold, moist or dry and if compound, it can be hot and moist, hot and dry, cold and moist

²²⁵ Ibid. Also see Ibn Qayyim Al-Jawziyya, *Medicine of the Prophet*, Ch. 8 (37-41) and 25 (94-98).

²²⁶ John Livingston, "Science and the Occult in the Thinking of Ibn Qayyim al-Jawziyya," *Journal of the American Oriental Society*, 112, no. 4 (Oct. – Dec. 1992), 598, accessed February 13, 2014, <http://www.jstor.org/stable/604475>.

See the article for a full description of al-Jawziyya's arguments and Donald Little's analysis of the Hanbali scholar's moderation in all aspects of his arguments due to his advocacy of the middle road, neither accepting nor rejecting, for example, cause and effect, and his maintenance that Islam is the middle road between the two extremes of Judaism and Christianity.

or cold and dry.²²⁷ Corresponding to Galen and Aristotle's theories of the elements and their attributes, the author expounds on the treatment of temperamental illnesses caused by excessive heat or cold:

The result is that the cause of the temperamental illnesses is largely attributed to the predominance of the qualities of either of the two active humors, heat and cold. The prophetic saying about the underlying principles for the treatment of diseases, caused by excessive heat and cold — i.e. treatment by opposites — is in harmony with this opinion. If the disease is hot, we treat it by drawing out blood, whether by venesection or cupping; this means an evacuation of the 'matter' and a cooling of the temperament. If it is cold we treat it by warming, a property which is present in honey.²²⁸

Ibn Qayyim devotes one chapter of *al-Tibb* to preventing and treating plague; this chapter is a combination of humoral theory and prophetic sayings and effectively reflects the fog in which classical Muslims found themselves when battling plague epidemics. He begins by citing Usāma b. Zayd who quotes the Prophet, "plague is a punishment which was sent upon a group of children of Israel or upon those before them." He then notes the Prophet's prohibitions against entry into or flight from plague infected areas,²²⁹ and plague being a martyrdom for Muslims.²³⁰ He maintains that the prohibition of flight from a plague-infected area is in line with the advice of the greatest classical physicians; during plague epidemics because travel, exercise and bathing must be avoided due to these activities stimulating effects on the humors. Traveling out of a plague-infected land creates anxiety and makes an individual more susceptible to the dangers of pestilential

²²⁷ Ibn Qayyim al-Jawziyya, *Medicine of the Prophet*, 6.

²²⁸ Ibid. 38.

²²⁹ "Usama ibn Zayd related from Sa'd that the Prophet, 'When you hear that the plague is in a land, do not enter it. When it arrives in a land where you are, do not leave it.' I (Ibrahim ibn Sa'd) said, "You heard Sa'd relate it and he did not reject it?" "Yes," he (Usama) answered." 5396, SunniPath, accessed Dec. 20, 2012, <http://www.sunnipath.com/library/Hadith/H0002P0079.aspx>.

²³⁰ Hafsa bint Sirin said, "Anas ibn Malik asked me, 'What did Yahya (ibn Sirin) die of?' 'The plague,' I answered. He said, 'The Messenger of Allah, May Allah bless him and grant him peace, said, 'the plague is martyrdom for every Muslim.'" 5400, SunniPath, accessed Dec. 20, 2012, <http://www.sunnipath.com/library/Hadith/H0002P0079.aspx>.

air.²³¹

Ibn Qayyim provides descriptions of plague symptoms and their toxicity, noting that the inflammations ulcerate and “turn black, green or a dusky color and occur in the armpit, behind the ear and the tip of the nose, and in the soft flesh.” He ranks these colors according to their lethality – the least harmful are the red, then yellow, with the black type always leading to death. The author uses the description from humoral theory for plague, noting that these swellings are caused by “bad blood that tends to putrefaction and corruption, and transforms into a poisonous substance.”²³²

Ibn Qayyim makes an important distinction between the terms epidemic and plague, “*waba*’ and *ta’un* differ, one representing the general, the other the particular; every plague is a pestilence, but not every pestilence is a plague.”²³³ The author cites Hippocrates who said that the worst illnesses always occur in the autumn. He retells the hadith of the second caliph ‘Umar b. al-Khaṭṭāb (d. 644) setting out for Syria, but discovering that a pestilence had broken out there (an aftercycle of Justinian’s Plague); did he expose the Companions of the Prophet and his followers to danger or turn back? After much discussion, ‘Umar turned back stating, “we are fleeing from the Almighty’s decree, to His decree.”²³⁴ ‘Umar was saying that either turning back or proceeding on the journey was dictated by God, so either decision was acceptable because it was preordained by God. The uncertainty and confusion surrounding early plague epidemics and appropriate actions is reflected in this account.

Ibn Qayyim then explores the idea of contagion or transmissibility and notes that

²³¹ Ibn Qayyim al-Jawziyya, trans. Penelope Johnstone, *Medicine of the Prophet*, 30-31

²³² Ibid. 27-28.

²³³ Ibid. 28. The distinction between these terms is explored in Lawrence Conrad’s “Tā‘ūn and Wabā’,” 268-307 and Dols, *The Black Death*, Appendix 2.

²³⁴ Ibid. 32.

only two diseases are contagious: leprosy and plague. The Prophet's reported prohibition of flight from plague-infected areas mirrors that of the Greek school of thought on an individual's humoral predisposition to a disease, only in the guise of the strength of his faith. "The Prophet addressed every individual according to what was appropriate for his condition. If the person is strong in his faith and his trust in God, then the strength of the constitution repels the power of the illness and makes it of no avail. Another person has no such strength, so he counseled him to be careful and take precautions."²³⁵

A final example of the conglomeration that was Greek humoral theory, Prophetic Medicine and magic can be found in al-Ṣanawbarī 's (d. 1412) *Kitāb al-raḥman fī al-ṭibb wa al-ḥikmah* (*The Book of Mercy on Medicine and Wisdom*). The author briefly describes Hippocrates and devotes two paragraphs to the four humors and the temperaments. The majority of his work concentrates on hadith and simple medicines such as honey, and magic and talismans. An example from this work for the treatment of anxiety is to write certain words "in a spiral design" and show it to the ailing person, "upon seeing it" the patient will be cured. For a headache "place your hand on the head of the sufferer and say a specified pious phrase, repeating it three or seven times."²³⁶

Prophetic Medicine and classical Islamic medicine were essentially the same practice using different terminology. There was no "consistent underlying theory in the Prophetic Medical texts, for they combine elements of Greek medical learning (in Arabic dress) and religious elements specific to Islam..."²³⁷ Each author or practitioner was essentially searching for and writing about treatments for little understood diseases that were often untreatable. A patient might or might not survive the plague; his recovery was

²³⁵ Ibid. 113.

²³⁶ Pormann et al. *Medieval / Islamic Medicine*, 74.

²³⁷ Ibid. 74

due to his balanced humors and constitution or his strong faith. If vinegar was given as a curative and the patient survived, then the vinegar as a medicine spurred his recovery, perhaps in conjunction with his faith. This conglomeration of Greek medicine, the use of hadith, and the acceptance of magic to battle disease, demonstrates the pragmatism of the time when facing illness.

Folklore and Mysticism: Magic, Numerology and Astrology

“...Magic was usually a more forceful method of supplication or a supercharged prayer.”²³⁸

Magic was one additional tool that classical man used, in addition to humoral medicine and Islamic Tradition, to combat plague. The use of magic in classical medicine was a conglomeration of astrology and mysticism, encouraged and diffused through all levels of Islamic society. While classical Islamic authors attempted to separate rationality and magic, they had no criteria to definitively make this division. Belief in jinn, angels, the Evil Eye, the use of magical amulets, and prayer rituals demonstrate the difficulties classical medical authors and practitioners faced during epidemics. Glen Cooper effectively describes how this separation was attempted in the use of astrology.

Most pre-modern thinkers seem to have admitted the idea of celestial influences of a general nature, such as would affect the weather or the environment of a patient, and thus his chances of healing. This kind of astrology might be termed natural astrology. Part of the Hippocratic worldview, via the influence of stars on atmospheric conditions, and thought to be significant in the patient’s recovery, natural astrology was accepted by most thinkers until modern times. On the other hand, the practices of casting star charts, determining horoscopes and reading the future therefrom belong to the general category of judicial astrology, and aim to determine the particular effects of the stellar influences on a specific person, with

²³⁸ Michael Dols, “The Theory of Magic in Healing,” in Lawrence Conrad, ed., *Magic and Divination in Early Islam*, v. 42, (Great Britain: Ashgate Publishing Limited, 2004), 87.

a view toward forecasting the future. Many thinkers subscribed to the first perspective, but not the second.²³⁹

An important work with regard to medical healing linked to astrology and numerology is the mysterious *Syriac Book of Medicine* with material dating back to the sixth and seventh centuries. This work, based on Greek thought that found its way into the Syriac traditions and then later into the Islamic medical traditions, is divided into three parts. Part One covers Galen's *On the Affected Parts* and *On the Composition of Drugs according to Places in the Body*. Part Two describes the "relationship of the planets and the signs of the zodiac with human health and disease: certain alignments of stars are more propitious than others. Numerology plays an important role; for instance, the numerical value of the letters in a patient's name is used in calculations to ascertain the best therapy."²⁴⁰ Part Three covers folk and magical remedies.

Magic was not confined to a specific class or group. While men dominated the popular medical discourse, it was women who were considered experts in its practice, particularly in the areas of childbirth, the distribution of herbs for medicinal purposes and the creation of protective amulets.²⁴¹ Often, classical medical practitioners viewed women as healers with disdain. The Christian physician Sā'id ibn al-Hasan (d. 1072) seems incredulous that women were accepted as healers:

How amazing is this [that patients are cured at all], considering that they hand over their lives to senile old women! For most people, at the onset of illness, use as their physicians, either their wives, mothers or aunts, or some [other] member

²³⁹ Glenn M. Cooper, "Galen and Astrology: A Mésalliance?" *Early Science and Medicine* 16 (2011): 123, accessed February 13, 2014, <http://web.b.ebscohost.com.ezproxy.lib.utah.edu/ehost/pdfviewer/pdfviewer?sid=ea8cac08-78a0-4dca-8015-5e27f05e4c03%40sessionmgr114&vid=2&hid=121>.

²⁴⁰ Pormann et al., *Medieval Islamic Medicine*, 19.

²⁴¹ For centuries it was women who practiced the early method of inoculation for smallpox (variolation) and Lady Montagu describes the elderly women she approached to inoculate her children when residing in the Ottoman Empire in the early eighteenth century. See Basil Aboul-Enein et al. "Smallpox Inoculation..."

of their family or one of their neighbors. He [the patient] acquiesces to whatever extravagant measure she might order, consumes whatever she prepares for him, and listens to what she says and obeys her commands more than he obeys the physician.²⁴²

Women healers were viewed with disdain by Islamic physicians, mostly men, because if an initial treatment they proposed did not work, a patient often sought treatment by alternative healers, many of whom were women. These female healers could be powerful competition for the male physicians. Al-Razi apparently complained of “women poaching his patients...someone suffering from bladder stones...received treatment from al-Razi” for an extended period. His condition did not improve and so he sought treatment from a woman and “was cured shortly thereafter.” Al-Razi believed that his treatment had actually worked and that the woman was taking credit for it.²⁴³ The arbitrary success of treatments, some apparently effective and others not, is reflected in this passage.

Magical treatments in early Islam often centered upon asking for God’s protection from, or his intervention against other powers. These included the Evil Eye, various demons and devils (*shayṭāns*), and specifically the “shape-shifting supernatural jinn, whose existence was recognized in the Quran.”²⁴⁴ “Magical and folkloric practices, as well as astrological medicine, formed part of the medical pluralism and reflected ancient beliefs and customs that long predated the advent of Islam.”²⁴⁵ Without explicit religious guidance regarding health and disease, all levels of society made use of the overlapping

²⁴² Pormann et al. “Female Patients and Practitioners in Classical Islam,” *The Lancet* 373, 9675 (May 2009): 1599, Science Direct, <http://www.sciencedirect.com/science/article/pii/S0140673609608953>.

²⁴³ Pormann, *Medieval Islamic Medicine*, 103.

²⁴⁴ Ibid. 145. Sūrah 72, Say, [O Muhammad], “It has been revealed to me that a group of the jinn listened and said, 'Indeed, we have heard an amazing Qur'an.'” The Quran mentions jinn many times including but not limited to Sūrahs 7:179, 7:38, 6:130, 6:100, 6:112 and 27:39.

²⁴⁵ Pormann et al. *Medieval Islamic Medicine*, 144.

treatments available from all available practices and cures that classical medicine encompassed.

Existing for millennia, the practice of using amulets or talismans to cure disease was an important category of magical medical practices. Small pieces of jewelry, inscribed rings or stones, were believed to provide the wearer with protections against evil or danger, give him or her powers and bring good luck. Ibn Ḥanbal (d.240/855) is reported to have approved the use of magical amulets: “I trust that there should be no harm therein.” During epidemics Ibn Hanbal’s son reportedly saw him writing talismans for people with quotations from the Quran on them.²⁴⁶ Quṣṭā ibn Lūqā (d. 299/912), a Syrian Christian physician maintained that the “state of the soul affected that of the body... since talismanic procedures appear to strengthen the mindset of the patient, amulets should be employed when necessary.”²⁴⁷ Al-Razi approved the magical use of amulets or talismans to treat plague boils, “if a man wore a ring made of mixed fresh myrtle on his little finger, his plague boils would be quieted.”²⁴⁸

The majority of authors writing plague tracts recommended prayers or magic squares or magical symbols written on paper, washed off with water, and then the ailing person drank the water to prevent or alleviate plague. Specific designs or pictures etched into rings, or specific stones set in rings could also offer protection. Letter magic, or the “use of the Arabic language against evil,” became increasingly important from the tenth century onwards. Many plague tracts advocated supplication and prayer in addition to the use of cryptograms; an important example is described in sixteenth century *Risālat al-shifā’ al-adwā’ al-wabā’* (*A Healing Message for the Ills of the Epidemic*) by

²⁴⁶ Ibid. 146.

²⁴⁷ Ibid. 146.

²⁴⁸ Ibid. 136.

Ṭāshkōprüzāde (1495-1561). He describes a story by the Persian scholar al-Sābūnī who died of plague in 1057. He wrote that he saw the Prophet in a dream and grumbled over the devastation of the plague. “God gave him a prayer to recite over water placed in a new cup and instructed him to drink the water when the epidemic occurred.”²⁴⁹

Most of the prayers recommended in various plague tracts are in the form of seeking spiritual refuge (*isti'āḍah, iltijā'ah*). Tashkopruzade begins by advocating the use of the divine names of God (*al-asmā' al-ḥusnā'*) that were believed to have magical properties. Two of the most important names, the Giver of Life and Death, (*al-mumīt wa al-muḥyī*) are specifically noted for their power to prevent plague in al-Būnī's (d. 1225) work on the divine names of Allah, *Shams al-ma'ārif al-kubrā (The Light of Great Knowledge)*. These names were to be “recited or written on a square made of gold, silver or parchment.”²⁵⁰

Certain surahs were noted for their healing and preventative properties with regard to plague. The *Sūra al-ikhhlās* (112: the Sincerity) should be read 11 times following any obligatory prayer and then surahs 109 (the Disbelievers), 113 (the Daybreak) and 114 (Mankind) followed by spitting on ones hand and wiping it on the body. Ibn Ḥajar Ibn Hajar ‘Asqalani (773/1372-851/1448) advocated the Throne Verse, being read for three consecutive nights as a plague preventative.²⁵¹ Additionally, six Quranic verses called the healing verses were considered powerful during plague epidemics and also *Sura yūnus* (Jonah-10), *Sura al-an'ām* (the Cattle-6) and the *Fātiḥah* or the opening verse of the Quran.²⁵² Tahkopruzade cites Shihāb al-Dīn ‘Umar al-

²⁴⁹ Dols, *The Black Death*, 127.

²⁵⁰ Ibid. 123-125.

²⁵¹ Ibid. 126.

²⁵² Ibid. 123-126.

Suhrawardī (539/1145-634/1237) who maintained that if one were to read the *sūra al-burūj* (the stars) at noon prayer no plague boils (*damāmīl*) would develop during an epidemic, “whoever recited the salām twenty-eight times every day is safe from the plagues.”²⁵³ He also recommended reading the Quran daily throughout the week, from Friday to the following Thursday.

During the plague of 821/1419 in Cairo, Ibn Taghribirdi (d. 874/1470) describes a prayer and fasting ceremony that included Jews, Christians, Samaritans, the rich and the poor, that took place outside the city. “...a man had come from the mountains of Asia Minor and informed the grand judge of Damascus that when plague had occurred in Asia Minor, he had seen the Prophet in a vision. The man had complained to Muḥammad...who declared: ‘Read the Sūrah of Noah 3,363 times and ask God to raise from you your affliction.’”²⁵⁴

Secret letters and the divine names of Allah were also used in specific patterns and repeated a certain number of times during plague epidemics. One name of Allah, the healer (*al-shāfi*), was written on “parchment of the skin of a gourd, placed in violet ointment, and then hung in the sun for forty days...and the name should be recited every day 391 times over this ointment.”²⁵⁵ The ointment was then smeared on the body to protect the wearer from plague for an entire year. Allah’s divine names could be written on cups, washed away with water and then the water was given to a plague sufferer to save him. Bread could be used as a vehicle for magical symbols, or parchment with a symbol could be burned; inhaling the fumes would help alleviate plague symptoms.²⁵⁶

²⁵³ Ibid. 127.

²⁵⁴ *al-Nujūm*, Popper Trans. Vol. 17, 64-66.

²⁵⁵ Ibid. 129.

²⁵⁶ Ibid. 130-132.

Magic squares were complicated and various forms existed; magic letters or numbers could be used to create the square. The earliest magic square (*wafq*) was a three by three square, with nine total cells, the numbers in each row, column and diagonal total fifteen when added together. Arabic letters of the alphabet, each assigned a specific value, could appear in magic squares. These took on their own name of *budūḥ*, named for each of the letters placed in the four corners, b = two, d = four, ū = six and ḥ = eight. The name *buduh* took on its own occult powers so that anyone not familiar with preparing the square could simply invoke the name of the square for protection. Often the names of the four archangels were associated with the *budūḥ*: *ḍubrā'īl*, *mikā'īl*, *sarāfa'īl*, and *'uzrā'īl*.²⁵⁷

Magic medicinal bowls were increasingly used from the twelfth century onwards. The early bowls were made of clay and are probably related to pre-Islamic Aramaic bowls with “spiral inscription invoking demons.” Islamic bowls were made of metal and had Quranic verses and “magical writing” upon them. A subgroup of these bowls called poison cups could be used to prevent illness and many were related to fevers. These cups were a bit of a cure-all and were often filled with water or other mixtures and given to the patient to drink. Similar to the varied and numerous treatments for the plague, one such bowl from twelfth century Damascus reads:

This blessed cup is for every poison. It have been gathered proven uses, and these are for the sting of serpent, scorpion and fever, for a woman in labour, the abdominal pain of a horse caused by eating earth, and the [bites of a] rabid dog, for abdominal pain and colic, for migraine and throbbing pain, for hepatic and splenic fever, for [increased] strength, for [stopping] hemorrhage, for chest pain, for the eye and vision [or Evil Eye], for ophthalmia and catarrh...and for all

²⁵⁷ Ibid. 147 and Lawrence Conrad, *Magic and Divination*, 137. For more detail on magic squares see Michael Dols, *The Black Death...* 128-142, and Cammann Schuyler, “Islamic and Indian Magic Squares. Part I,” *History of Religions* 8, no. 3 (Feb., 1969), 181-209 and Part II, *History of Religions* 8, no. 4 (May, 1969), 271-299.

diseases and afflictions. [If] one drinks water or oil or milk from it, then they will be cured, by the help of God Almighty.²⁵⁸

Since this bowl was for all diseases and afflictions it was probably also used to treat plague although this is not specifically listed in the inscription.

In addition to magic squares and magic medicinal bowls, a separate genre of *khawāṣṣ* (sympathetic affects) literature (from *khaṣṣah* meaning special property) developed from the tenth century onwards. This genre held that everything in nature has hidden or occult properties that could be activated. Corresponding to Galen's treatment of opposites, some plants, animals and stones are compatible in nature and others are opposite in nature. Small and intricate engravings would be made on specific stones to provide protection from disease.²⁵⁹

With regard to plague, sapphires in rings or necklaces are cited as amulets against plague; Ibn al-Wardī, in his *al-Nabā 'an al-wabā'* (*News of the Pestilence*) mentions rubies in warding off plague. An example of stone magic mixed with astrology is from the fourteenth century, Ibn Haydūr cites his teacher who lived through the plague of 763-764/1362-1363. His teacher had a dream of a man telling him to use a book in his own library and recite the names of God that were in the book. He told his friend, Ḥājj Rashīd al-Ḥabishī al-Mashriqī (d. 783/1382) who noted that the names were often engraved on the stones of rings with the letter *hā'*. If the stone were engraved in this way, the person wearing it would be protected from the plague fever. The ring could be submerged in a glass of water and the water drunk. However, it was prohibited to wear the ring on Saturday or Monday due to the coldness of the “the two stars, Saturn and the moon,

²⁵⁸ Pormann et al., *Medieval Islamic Medicine*, 152. See also H. Henry Spoer, “Arabic Magic Medicinal Bowls,” *Journal of the American Oriental Society*, 55, no. 3 (Sep., 1935): 237-256.

²⁵⁹ *Ibid.* 156.

linked to these two days.”²⁶⁰

Astrology was often used alongside Prophetic Medicine and Greek humoral medicine in healing by both the general population and the elite. When Mamluk Sultan al-Nāsīr Muḥammad became ill in 741/1341 he consulted doctors, astrologers and geomancers. Ibn Ridwan and al-Razi often quoted Hippocrates from his *Airs, Waters, and Places* that “the science of the stars is no small part of the science of medicine.” As previously noted, Ibn al-Nafis maintained that the seasons played a role in plague epidemics. “As regards the heavenly air, the causes are the many shooting stars and meteorites at the end of summer and in the autumn, the strong south and east winds in December and January, and when the signs of rain increase in the winter but it does not rain.”²⁶¹ While some physicians like Ibn Sīnā refused to accept the validity of astrology in the treatment of illness, the majority of the elite followed the common sense approach of the general population and pursued treatments from all practices within classical medicine.

The classical Muslim polymaths and physicians used a combination of Greek humoral theory, Islamic Tradition, and magic to battle terrifying diseases such as the plague. There were no hard divisions between the approaches, and practitioners shared the belief that maintaining one’s health and preventing imbalances in the body was of utmost importance. Medicine in this period was fluid and the evolution of the medical practices paralleled and overlapped, despite different naming conventions. The common sense of the people at all levels of society prevailed in the face of devastating epidemics.

²⁶⁰ Dols, *The Black Death...* 133-135.

²⁶¹ Ibid. 89.

All possible effective treatments were utilized in a time when only a person's immunity could actually protect him from plague.

CHAPTER 4

ADMIRATION AND DISDAIN: A TENSE SYMBIOTIC RELATIONSHIP THE ULAMA AND THE RULING ELITE

Introduction

“The Mamluk Regime has been routinely described as paradoxical: a military caste of slave-soldiers who shored up Egypt's stature as a great power in the turbulent milieu of Southwest Asian and Mediterranean politics for more than two centuries.”²⁶² It was during Mamluk rule in Egypt and Syria (1258-1517),²⁶³ that the Black Death and subsequent plague epidemics ravaged Egypt and Syria. The ulama played a critical role in mediating between the ruling Mamluk elite and the general public during crises. They dominated the production of all written material in the Mamluk period including historical narratives, biographies, chronologies, literature, medicine, math and science. This was a multilayered class; Albert Hourani calls them the notables²⁶⁴ while Nasser Rabbat employs the term *literati*,²⁶⁵ a loosely composed class of “judges, jurists, prayer-

²⁶² Carl F. Petry, “Scholastic Stasis in Classical Islam Reconsidered: Mamluk Patronage in Cairo,” *Poetics Today*, 14, No. 2, Cultural Processes in Muslim and Arab Societies: Classical and Early Modern Periods (Summer, 1993), 323.

²⁶³ Mamluk rule is divided into two periods: the Bahri from 1250-1382, mainly Qipchaq Turks from southern Russia with their headquarters on the Nile (*bahr* or of the sea), and the Burji period from 1382 to the Ottoman invasion in 1517, Mamluks of Circassian origin centered in the citadel or tower (*burj*).

²⁶⁴ See *Histories of the Middle East: Studies in Middle Easter Society, Economy, and Law...* ed. Margariti Eleni et al. Leiden (Boston: 2011) 9.

²⁶⁵ Nasser Rabbat, “Representing the Mamluk in Mamluk Historical Writing,” *History of Islamic Egypt (c. 950-1800)*, Brill (Boston: 2001): 60.

leaders, scholars, teachers, readers of the Quran, and reciters of traditions,”²⁶⁶ responsible for the organization and religious leadership of their society.

The ulama recorded political events, religious occasions, economic issues, military battles, famines, floods and epidemics. The immediate circumstances of each scholar’s life during the epidemics and events during the production of these historical narratives dictate the detail and choice of events to record. The author’s social background and network and how intimately he was linked to the ruling elite or the general population also dictated choices on exclusion or inclusion of information. These social networks, identities, and political power varied with historical conditions and a previous strong tie to the ruling elite could deteriorate or disappear with the advent of a new ruler. A brief description of the Mamluk political and military environment will help to understand the context within which the ulama navigated and maintained their tenuous position between the elite and the masses.

Who Were the Mamluks?

The term “Mamluk” is derived from the Arabic trilateral root *m-l-k* meaning owned and the Mamluks were elite military slaves, as opposed to more general slaves, known as ‘abd or khādim. Mamluks were purchased in the slave market or captured in raids into Central Asia; they were then used to provide military manpower for Muslim rulers and their amirs. All ties to a Mamluks’ Turkish origins – his land, religion, and family – were severed when they were sold into slavery, and at a young age, they entered Mamluk military school. This institution was his new home and other Mamluks became

²⁶⁶ Ira M. Lapidus, *Muslim Cities in the Later Middle Ages*. Cambridge University Press (London: 1984), 107.

his new family. “This was a new family which was not based on blood relations, but on relations of slavery and patronage. The patron who had bought the Mamluk became his father, and his comrades... [often from] other races and tribes, became his brothers.”²⁶⁷ Many were given new Turkish names coupled with the term slave or servant of God, Abdullah. In theory, these new recruits owed their loyalty to their new master who provided shelter and food, a basic Islamic education, and extensive training in horsemanship, archery and other military skills.²⁶⁸

The Mamluks retained their elite status and the bonds of loyalty, not only to their master, but also to their regiment or peers (*khushdāshiyya*), remained strong.

In theory a Mamluk’s life prepared him for little else but war and loyalty to his lord. Great emphasis was placed upon the *Furusiyya* – a word made up of the three elements: the science (*‘ulūm*), arts (*funūn*) and literature (*adab*)²⁶⁹ – of cavalry skills. The *Furusiyya* was not dissimilar to the chivalric code of the Christian knight insofar as it included a moral code embracing virtues such as courage, valor, magnanimity and generosity; but it also addressed the management, training and care of the horses that carried the warrior into battle and provided him with leisure time sporting activities. It also included cavalry tactics, riding techniques, armor and mounted archery. Some texts even discussed military tactics: the formation of armies, the use of fire and smoke screens. Even the treatment of wounds was addressed.²⁷⁰

Robert Irwin argues that this loyalty was not particularly strong, especially during the Bahri period. Sultans’ attempts to buy the loyalty of their amirs and Mamluks often failed and “the Mamluk served his master because his master served him and there was

²⁶⁷ David Ayalon, *Outsiders in the Lands of Islam* (London: Variorum Reprints, 1988): 326-27.

²⁶⁸ Carl Petry, *The Cambridge History of Egypt. Volume One, Islamic Egypt, 640-1517*, (NY: Cambridge University Press, 1998), 245 and James Watterson, “The Mamluks,” *History Today*, 56 no. 3 (2006), accessed May 17, 2013, <http://www.historytoday.com/james-watterson/Mamluks>, and Dols, *The Black Death*, 143-145.

²⁶⁹ The term *furūsiyya* (horsemanship) comes from the Arabic root f-r-s meaning horse and in the Mamluk period included all skills related to horsemanship. Exception military skills such as archery from a galloping horse could spur a Mamluk’s rise through the ranks and the acquisition of ‘iqta’s.

²⁷⁰ James Watterson, “The Mamluks...” accessed Feb. 10, 2014.

money involved.”²⁷¹

Mamluks remained in separate garrisons guarded by palace eunuchs and did not mix with the general population in Egypt or Syria. These military slaves, in theory, were prohibited from passing title or property to their sons, *alwād al-nās*. “Mamluk society was a one-generational nobility,” and the sons were eventually absorbed by society as an intermediate class between the military elite and the civilians.²⁷² This one-generational elite status spurred a continuous need for the import of new recruits to continue the cycle, and supplement the military elite. It also spurred cycles of instability, with different Mamluk factions, loyal to their own regiments, battling for power. An example of this instability: in the fifteenth century only eight out of twenty-one sultans ruled more than five years²⁷³ and all were overthrown in bloody upheavals.

David Ayalon notes several factors influencing this system of one-generational nobility that effectively fostered those with the greatest abilities and talents. The most important of these factors was that any Mamluk son was a born Muslim and Muslims, according to Islamic Law, cannot be enslaved. However, the pagan natives of the steppes of Central Asia could be enslaved and then converted to Islam. Boys from this region were renowned for their strength and ability to exist in a harsh environment; only the tough ones survived long enough to be transported to Egypt and participate in intensive military training. The sons of Mamluks could not become members of these elite military regiments because this would spur conflicts of interest between the slave “family” and the real family. The principle of promoting only those of exceptional

²⁷¹ Robert Irwin, “Factions in Classical Egypt,” *Journal of the Royal Asiatic Society of Great Britain and Ireland*, 2, (1986): 237.

²⁷² David Ayalon, *Outsiders...* 328.

²⁷³ Carl Petry, *The Civilian Elite of Cairo in the Later Middle Ages*, (New Jersey: Princeton University Press, 1981) 21.

strength, talent and ability would be threatened; parents in close proximity to their sons would attempt to influence the decision-making process.²⁷⁴

Mamluks retained their Turkish language and most did not learn Arabic. While most were given an Arabic name when converted to Islam, many Mamluks retained their Turkish name as a symbol of superiority to the general population. When they were granted manumission, they were elite trained soldiers who had access to military positions based on battlefield performance, ability and loyalty to their commanders. There were many special privileges available only to the Mamluks. While the general population made use of rulings from the four orthodox Islamic schools of law²⁷⁵ for legal and religious guidance in Egypt and Syria, the Mamluks made use of a parallel judicial system (*siyāsah*) that came into being earlier under the ‘Abbasids and was also known under the name of *mazālim*. The ulama and qadis administered family and contract law, the rulers administered criminal law and punishments (*ḥadd*).²⁷⁶

Once a Mamluk had been granted freedom, he was paid in land grants (*iqṭā’*) and could become an amir. The degree of power wielded by a Mamluk amir was in direct proportion to the number of land titles he held. The Mamluk Sultan’s power was based upon his army composed of senior amirs who, in the early period of Mamluk rule, advanced through the ranks slowly.²⁷⁷ Advancing through the ranks was difficult and

²⁷⁴ Ibid. 329-330.

²⁷⁵ See Joseph H. Escovitz, “The Establishment of Four Chief Judgeships in the Mamluk Empire,” *Journal of the American Oriental Society*, 102, No. 3 (Jul.-Oct., 1982), 529-531 for information on the creation of a system where each of the four orthodox religious schools was granted a chief judge to preside over matters relevant to his school. Escovitz argues that the Shāfi‘ī judge was still able to “exert his preeminence.” Peter Von Sivers notes that the reason for this was that Shafi‘i, the founder of Islamic law as a formal system (that is, *fiqh*) spent his (later) career in Egypt.

²⁷⁶ Peter Von Sivers, University of Utah, February 8, 2014.

²⁷⁷ Problems with this system began to develop with the onset of peace following the Mamluk’s triumph over Louis IX of France in 1250 and then Mamluk success against the Mongols. Nāṣir Muhammad al-Qalāwūn (r. 1285-1341) began the process of rapid promotions based on household ties, alienating those

centered on brutal training, merit and physical and mental prowess. The ranks of the amirs included the Amir of the First possessing a minimum of one hundred white slaves and commanding at least 1,000 troops on the battlefield. He appointed his Mamluks as his officials similar to the Sultan's major-domo, head of the guards, etc... an Amir of the Second Class or Amir of the Drums (*amīr ṭabalkhāna*) was obliged to maintain a minimum of forty Mamluks. Amir of the Third Class or Amir of Ten maintained a minimum of ten Mamluks from his *iqta'* *iqta'* revenues. The final class was Amir of the Fourth Class or Amir of Five who maintained five Mamluks; this title, seldom actually bestowed, was similar to the higher grades of enlisted troops.²⁷⁸

Throughout the Mamluk period, the system of *iqta'* or "land tenure as a system of payment to the army was never abandoned, although there were changes in how it was apportioned."²⁷⁹ In the early Mamluk period only the sultan or powerful amirs could make land grants to a *muqtā'* (*iqta'* holder) and in exchange the *muqtā'* had responsibilities. Supplying troops for battle, supervising and maintaining agricultural land and irrigation systems, paying the *muqtā'*'s troops and providing their equipment and supplies all fell under the *muqtā'*'s responsibilities. The quality and yield of *iqta'*'s varied greatly with the sultan owning the most fertile land and powerful amirs favored by the sultan receiving the parcels of the more fertile land. Sultan al-Nāṣir Muḥammad granted an *iqta'* to amir Yashbak that had an annual yield exceeding the yield of seven other

who had climbed the ranks and were qualified for promotion; this practice led to a lapse in discipline and a deterioration in military skills. Petry, Carl F. Ed. *The Cambridge History of Egypt*, V.1, 262.

²⁷⁸ For details regarding all ranks and titles see William Popper, *Egypt and Syria Under the Circassian Sultans: 1382-1468 A.D., Systematic Notes to Ibn Taghrī Birdī's Chronicles of Egypt*, (Berkeley and LA: University of California Press: 1955), 86.

²⁷⁹ Amalia Levanoni, "The Mamluk Conception of the Sultanate," *IJMES* 26, no. 3 (Aug. 1994), 374, accessed August 15, 2013, <http://www.jstor.org.ezproxy.lib.utah.edu/stable/pdfplus/163694.pdf>.

amirs and seventeen tabalkhana combined.²⁸⁰

Problems developed with the iqta' system because the primary goal for most the higher rank Mamluks was to obtain the maximum revenue from the iqta' in the shortest period of time. The sultan could confiscate iqta's on a whim, and imprisonment or execution on orders of the sultan was a constant threat to the muqta'. This instability, spurred by short ownership periods, did not encourage maintenance of the land and irrigation systems. The muqta' often increased taxes on the peasants to such an extent that many of them fled under the heavy tax burden.

In the early fourteenth century the sultans began to distribute more distant iqta's in Upper and Lower Egypt while the muqta's lived near Cairo. This attempt to distance the muqta' from his land holdings hindered rebellions and the formation of independent factions that might challenge the sultan, but it also had unintended consequences. These iqta's were exposed to constant Bedouin raids and the muqta' was forced to employ clerks to manage the land that he never visited. The cost of salaries for the clerks, in addition to their dishonesty, reduced the iqta' revenue, spurred further neglect, and created an untenable situation. During catastrophes such as drought and plague epidemics, iqta's could be transferred to several muqta's in only a few days, hastening the cycles of neglect.²⁸¹

Despite the problems associated with the iqta' system, exploitation of the privileges attached to land tenure was the primary goal of most Mamluk factions. Only powerful amirs were granted iqta's and Amalia Lavanoni maintains, "Mamluks could

²⁸⁰ Wan Kamal Mujani et al. "Some Notes on the Iqta' System in Mamluk Period," *Middle East Journal of Scientific Research*, 7, (2011): 103, accessed February 11, 2014, http://www.academia.edu/3412997/Some_Notes_on_The_Iqta_System_in_Mamluk_Period.

²⁸¹ Ibid. 103-104.

retain their status only when they belonged to a Mamluk faction that functioned as an effective interest group and was strong enough to impose its will on other factions.

Ambitions could be promoted only within the factional framework.”²⁸² As Michael Dols notes, “...the political machinations of the Mamluks did ensure the rule of a strong leader, but at the expense of political stability and considerable human suffering.”²⁸³

The majority of amirs lived in poverty due to the limited amount of living space within the Citadel that could probably house no more than 5,000 Mamluks. Many Mamluks were sent out into the city to find housing, subsisting on poor rations and inadequate pay. They were forced to mingle with the lower levels of the general population (*al-‘ammah*) and other dissatisfied factions of Mamluks.²⁸⁴ A Mamluk’s chance of becoming a *khaṣṣakiyya* (elite Mamluk) or an Amir of Ten Mamluks with one *iqta’* was extremely small, and without a network of elite contacts, progressing to an Amir of Forty was almost impossible. Amirs could increase their power through their ability to maneuver among Mamluk regiments and create coalitions, possibly creating a group strong enough to overthrow the sultan. The sultan, using his royal Mamluks, manipulated the jealousies and aspirations of the Mamluk factions, in order to prevent being overthrown.

Despite political instability created by the intrigues of Mamluk factions, the military households of amirs and governors played an important role in urban administration. Ira Lapidus notes, with the sultan and central government delegating responsibility for public services, the amirs and governors were responsible for these

²⁸² Amalia Levanoni, “The Mamluk Conception of the Sultanate,” *IJMES* 26, No. 3 (Aug., 1994): 374, accessed August 15, 2013, <http://www.jstor.org.ezproxy.lib.utah.edu/stable/pdfplus/163694.pdf>.

²⁸³ *Ibid.*

²⁸⁴ Robert Irwin, “Factions in Classical Egypt,” 240-241.

services, endowing and maintaining religious and educational institutions, and sanitation and policing. “The substitution of the households of the leading Mamluk officials for bureaucratic machinery was of the greatest importance because the households were not merely branches of the state, but potential sources of private power and influence which could be used for independent ends.”²⁸⁵

The urban population relied on the huge Mamluk households, servants, slaves, scribes, in-laws, and extended family, selling supplies of saddles, harnesses, leather, flags, banners and the services of restaurants and cabarets for their men. Powerful amirs could acquire more wealth than any member of Mamluk society, even the *karimī* merchants who traded in spices, precious jewels, slaves, sugar and textiles.²⁸⁶ Lapidus notes, “...a minor religious functionary might earn two dirhams a day, in the fourteenth century the income of amirs ran up to a half million and a million dirhams a year...”²⁸⁷

Another important economic issue was the structure of the tax system; Mamluks were paid entirely in grain provisions, and essentially became the grain agents of the fourteenth and fifteenth centuries. They sold supplies of wheat, barley and beans to the general urban populations of Cairo, Alexandria and Syria, further increasing the peoples’ dependence on the whims of the ruling amir and his desire to sell his grain supplies. While the Sultan generally kept the greatest provisions of grain, the ruling amirs and governors with the biggest households, could stock in excess of 1.5 million bushels at one

²⁸⁵ Ira Lapidus, *Muslim Cities in the Later Middle Ages*, (Cambridge: Cambridge University Press: 1984), 48. As Dr. Peter Von Sivers notes, “there was a bureaucratic machinery: the fiscal administration, run by non-Mamluks, but it was limited to iqta’, fiscality, and army payroll.” (February 11, 2014)

²⁸⁶ Sato Tsugitaka, “Slave Traders and Karīmī Merchants during the Mamluk Period: A Comparative Study,” *Mamluk Studies Review* X, no.1 (2006): 154, accessed February 11, 2014, http://Mamluk.uchicago.edu/MSR_X-1_2006-Sato-Tsugitaka_2.pdf.

²⁸⁷ Ibid. 50. According to Warren Schultz, the value of the dirham in fourteenth century Egypt was a “quantity of silver-based coins that added up to a value of sixty-six percent alloy silver weighing approximately three grams.” In Stuart James Borsch, *The Black Death in Egypt and England* (Austin: University of Texas Press, 2005) 71.

time.²⁸⁸ During times of drought or poor harvests, the amirs often manipulated the market by hoarding grains, exacerbating disasters such as famine and starvation. True power lay with the senior amirs, their factions and their ability to manipulate the Sultan for their own gain. The overthrow of the sultan was always the ultimate goal for these various factions.

The Mamluk regime is often viewed as paradoxical; a group of foreign military slaves, members of regiments or factions that were often at war with each other, were able to take power in Egypt and Syria and rule for more than 250 years. Successfully battling the Crusaders (1291) and the Mongols (1260-1303), they legitimized their rule and preserved Islamic culture and civilization in Egypt and Syria. Despite the appearance of ruling arbitrarily, “as if their realm were a personal fief... this regime also sponsored a scholastic enterprise in Cairo, Damascus, and Aleppo that was remarkable for the profusion of its output...”²⁸⁹

The Social Classes of the Mamluk Period

Mamluk society was composed of three groups as noted by Nasser Rabbat and David Petry: the Mamluk ruling military elite, the ulama/literati class, and the general population or masses. Ira Lapidus divided the three groups in terms of the ruling elite (*al-khāṣṣa*), the notables (*al-a'yān*) and the common people or general population (*al-āmmah*). At the pinnacle was the Mamluk ruling elite or the al-khassa with its ranks closed to the other social classes. The ruling elite effectively barred the ulama class from prestigious political positions; “the army and through it, all political power and its

²⁸⁸ Ibid. 51.

²⁸⁹ Carl Petry, “Stasis in Classical Islam Reconsidered: Mamluk Patronage in Cairo,” *Poetics Today*, 14, no. 2, Cultural Processes in Muslim and Arab Societies, Classical and Early Modern Periods (Summer 1993): 324.

attendant financial and landholding prerogatives became the exclusive domain of the Mamluk class.”²⁹⁰

The second group was the notable class or al-a’yan composed of leading members of small communities as opposed to the ruling military elite. This group included the literati, the civilian administrative elite primarily composed of ulama responsible for administrative and religious services, and also judges, scholars, teachers, merchants (depending on their services) or doctors with clients from the notable class.²⁹¹ The ulama were a loosely composed group or class that “shared some general ethos, but had little practical sense of group solidarity aside from superficial signs such as dress codes or mannerisms or speech or conduct.”²⁹² The Mamluks barred them from attaining powerful political positions, but the ulama monopolized the production and dissemination of knowledge, and played a critical role as mediators between the Mamluks and the masses. The majority of them did not speak Turkish²⁹³ and were often disdainful towards the Mamluks, whom they considered uneducated or illiterate.

Mediating between the ruling elite and the masses placed the ulama in a tenuous position. “Vacillation between denigration and adoration of the Mamluk governing caste...reflects the profound instability of relations between the firmly corporate Mamluk elite, on the one hand, and the ulama class, on the other.”²⁹⁴ Many ulama held the military rulers in contempt; the ulama considered the rulers uneducated Turks who had

²⁹⁰ Hugh Kennedy, *Representing the Mamluks...* 2001, 65.

²⁹¹ Ira Lapidus, *Muslim Cities...* 1984, 81-82.

²⁹² Ibid.

²⁹³ al-‘Aynī (1361-1451) and Ibn Taghribirdī (1419-1470) are two ulama known for speaking both Turkish and Arabic. However, this was unusual. Hugh Kennedy notes that al-‘Aynī only published his *‘Iqd al-Jumān* in Arabic, even though he was also fluent in Turkish. He probably would have increased his target audience if he had published in two languages. Ibid. 69.

²⁹⁴ Ulrich Haarmann, “Rather the Injustice of the Turks than the Righteousness of the Arabs: Changing ‘Ulama’ Attitudes Towards Mamluk Rule in the Late Fifteenth Century,” *Studia Islamica* 68, 1988, 73, accessed Sept. 13, 2013, <http://www.jstor.org/stable/1595758>.

seized power in Egypt by force. Paradoxically, the ulama were financially dependent upon this ruling class because only the Mamluk sultan, his viceroy, and his senior amirs could manipulate political appointments and distribute the financial rewards desired by many ulama.²⁹⁵ “The sultan and the amirs appointed qadis, muftis, and madrasa teachers from the mass of ulama who were either private persons living from the proceeds of family endowments or from their positions as administrators of pious endowments (waqfs).”²⁹⁶ The Mamluk elite controlled the iqta’s, founded madrasahs and waqfs and made appointments to the judiciary, thus exercising extensive control over the religious establishment.²⁹⁷

The Mamluks relied on the services of the ulama due to the ulama’s expertise in maintaining the religious, social and fiscal systems for the governing elite. The ulama could never hope to attain political power because the Mamluks ruled through “exclusion and segregation,”²⁹⁸ resulting in a tense, interdependent relationship.

Urban society in the Mamluk period was characterized by a web of patronage that bound the ulama as a group to a military elite. In exchange for protection from external enemies and income from bureaucratic and legal appointments, the educated elite legitimized the Mamluk regime by enjoining obedience on the local population, mediating the government’s need for tax revenues, and performing a host of tangible and intangible services to the state.²⁹⁹

The ulama were responsible for management of pious endowments (awqāf, s. waqf) and from Sultan Barsbay’s reign (1422-1438) onwards these endowments were increasingly manipulated for personal gain, by sultans who set up family waqfs for personal gain, and also by the ulama. Although the ulama were compensated as managers

²⁹⁵ Hugh Kennedy, *Representing the Mamluks...* 2001, 67.

²⁹⁶ Dr. Peter Von Sivers, personal comment (February 8, 2014).

²⁹⁷ Petry, Carl F. Ed. *The Cambridge History of Egypt, V.1, Islamic Egypt*, 264.

²⁹⁸ *Ibid.* 65.

²⁹⁹ Jonathon Berkey, *The Transmission of Knowledge in Classical Cairo*, Princeton University Press (New Jersey: 1992), 101.

from the funds, many of them embezzled great fortunes on the side. When ulama were dismissed from positions, their wealth often far exceeded what they could possibly have earned as compensation for managing a waqf. The sultans used the endowments to transfer increasing amounts of iqta' lands into their personal family waqfs and distribute income to their families.³⁰⁰

The ulama belonged to one of four religious schools and during Ayyubid rule (566/1171-649/1252) and the early years of Mamluk rule, the Shafi'i School of law was the only school with a chief qadi or judge. In 653/1265, under Sultan Baybars, all four schools of law were allowed to appoint chief judges responsible for deciding matters within their own schools. The incumbent Shafi'i chief judge retained exclusive authority over the treasury and later, all appointments of deputies in areas outside of Cairo.³⁰¹ Despite the Shafi'i School maintaining a few exclusive areas of decision-making, Sultan Baybar's move weakened the Shafi'i School's prestige. In historical narratives and chronologies, the Shafi'i ulama tend to be the most critical of the Mamluk regime.

The ulama class, while theoretically open to all social classes, was in practice limited to ulama family members and sons of Mamluks; religious appointments were often jealously guarded.³⁰² Petry notes that the most powerful and prestigious ulama often took over professorships and then subsequently resigned and appointed their family

³⁰⁰ Koby Yosef, and Annemarie Schimmel Kolleg, "Mamluks and Their Relatives in the Period of the Mamluk Sultanate (1250-1517)," *Mamluk Studies Review* XVI, 2012, 80, accessed August 2, 2013, http://Mamluk.uchicago.edu/MSR_XVI_2012_Yosef_pp55-69.pdf.

³⁰¹ Rapoport, Yossef. "Legal Diversity in the Age of Taqlid: The Four Chief Qādīs under the Mamluks," *Islamic Law and Society* 10, no. 2, 2003, 210, accessed September 17, 2013, <http://www.jstor.org/stable/3399252>.

³⁰² Ibid. 61. Irmeli Perho notes that Ibn Hajar 'Asqalani's biographical dictionary *al-Durar al-kāminah fī a'yān al-mī'ah al-thāminah* only has a few commoners listed who broke into the ulama ranks. They were noted mainly as muhaddiths, transmitters of traditions with basic literacy and memorization as their primary skills. "Climbing the Ladder: Social Mobility in the Mamluk Period," *Mamluk Studies Review* XV, 2011, 19, Accessed August 16, 2013, http://Mamluk.uchicago.edu/MSR_XV_2011_Perho_pp19-35.pdf.

members (most often sons) or their friends to the position.³⁰³ The transmission of knowledge from ulama to student in the madrasahs (schools) was often used as a means to regulate access to ulama status.³⁰⁴ Many of the *awlād al-nās* (sons of Mamluks) should be “intellectually, socially or ideologically classified with the ulama...despite their Mamluk lineage, privileges, and knowledge of the Turkish language.”³⁰⁵ However, despite having wealth and time to focus on learning, the awlad al-nas were held in disdain due to their Turkish lineage by the ulama. The ulama were prevented from accessing the benefits of the military elite and guarded the power and influence they wielded through their education. Many ulama believed that military prowess and a scholarly education were mutually exclusive. Ibn Hajar ‘Asqalani commented, “although he (his Mamluk son-in-law) copied in his own hand *al-Shifā’*, a popular treatise on the life and attributes of the Prophet, and ...an early book of law, it was worth less than the paper, and he did not benefit from it.”³⁰⁶

The ulama were not only prejudiced towards the awlad al-nas, but also towards subgroups within the general population that the religious class suspected of questionable morality. The general population, alternately called *al-nās*, *ahl al-balad*, or *al-‘ammah*, encompassed many different subgroups in the classical historical narratives. Lapidus notes that this class included any group the ulama suspected of questionable morality: tanners, butchers, criminals, prostitutes, dancers, wine sellers, etc... doctors, occultists and merchants might also fall into this category, but according to the ulama, their status

³⁰³ Jonathon Berkey, *The Transmission of Knowledge in Classical Cairo* (New Jersey: Princeton University Press, 1992): 107.

³⁰⁴ Eleni Margariti et al. *Histories of the Middle East*, 13.

³⁰⁵ Many of the awlād al-nās were well educated and encouraged to take on religious and administrative duties. They were not recruited by the military or allowed to attain the position of amir until the third reign of al-Nāṣir Muḥammad (1309-1341). Nasser Rabbat, in Hugh Kennedy, *Representing the Mamluks*...62

³⁰⁶ Jonathon Berkey, *The Transmission of Knowledge*... 151.

depended upon their clientele or the products they traded. Spice traders were generally grouped within the al-a‘yan class while leather traders would be considered part of al-‘ammah. The Sultan’s doctor would be part of the al-a‘yan class, but a rural doctor would be part of the al-‘ammah.³⁰⁷

The Ulama and the Textual Environment

In early fifteenth century Egypt and Syria, more annals, historical narratives, biographical compendia, manuals for chancery, geographical treatises (*masālik*), and topographical tracts (*khiṭaṭ*) were produced than in any other period. The focus was most generally local events, and intense scholarly competition could erupt due to authors’ different perspectives and commentary on the same events. Bitter factionalism and competition for positions in the judiciary and schools often developed between ulama and their disciples and supporters and other ulama and their followers.³⁰⁸

The textual environment did not promote individuality or authorship; a scholar’s religious and scholarly links within society and his good reputation within those circles were more critical.³⁰⁹ These social links were important due to both the informality and formality associated with education in classical madrasahs. Links between individuals, ulama to ulama, ulama to student, and ulama to elite court circles, were critical in determining the degree to which ulama could exert their agency. This was a “dynamic network, loose but comprehensive in its inclusion of various disparate social groups, and

³⁰⁷ Lapidus, *Muslim Cities...* 79-108 for full details of overlapping social classes in Mamluk Egypt and Syria. See also Yossef and Schimmel Kolleg, “Mamluks and Their Relatives,” 20-21 for further details.

³⁰⁸ Amalia Levanoni, “Who Were the ‘Salt of the Earth’ in Fifteenth Century Egypt?” *Mamluk Studies Review* XIV, 2010, 63, accessed July 2, 2013, http://Mamluk.uchicago.edu/MSR_XIV_2010-Levanoni-pp63-83.pdf.

³⁰⁹ Nasser Rabbat, “Who Was Maqrīzī?” *Mamluk Studies Review* VII, no. 2, 2003, 1, accessed September 12, 2013, http://Mamluk.uchicago.edu/MSR_VII_2003-Rabbat-pp1-20.pdf.

effective in transmitting knowledge but also in forging a common Muslim cultural identity.”³¹⁰

Strong links often developed between students and their teachers who worked together for long periods of time. Students often continued or modified their teachers’ earlier works. Because the production of written texts was expensive, learning was predominantly aural; a teacher would give a lecture and the students would take notes. The teacher would transmit texts to his students who would then jot down notes which could include “summarized texts, short excerpts, personal testimonies, comments, and first sketches of small parts to be included in drafts later on...”³¹¹ When a student had mastered a text, he was presented with a license (*ijāzah*) to transmit by his teacher. The number of experts in hadith transmission was small and a family needed access to a strong social network to secure appointments. This process ensured a limited number of transmitters within the line of transmission (*isnād*) for purposes of consistency.³¹² Students could also obtain *samāhs*, certificates of attending a lecture, with no assumptions that the student had actually worked with the ulama giving the lecture.

The ulama produced historical narratives, often divided by yearly coverage with each chapter divided by month, followed by a list of bibliographies at the end of each year. However, person, topic, or geography could also organize narratives with the author focusing on the Mamluk elite, adding comments and information with regard to special events, crises, imperial ceremonies or battles. Some authors, like Maqrizi, might add information regarding the general population while others, like Ibn Taghribirdi,

³¹⁰ Berkey, *The Transmission of Knowledge*...20.

³¹¹ Frédéric Bauden, “Maqriziana II: Discovery of an Autograph Manuscript of al-Maqrīzī: Towards a Better Understanding of His Working Methods,” *Mamluk Studies Review* XII, no. 1, 2008, 84, accessed September 12, 2013, http://Mamluk.uchicago.edu/MSR_XII-1_2008-Bauden-pp51-118.pdf.

³¹² Yosef, and Schimmel Kolleg, “Mamluks and Their Relatives,” 22.

might add information on intimates in his household such as slave and servants, but focus primarily on the Mamluk elite. Often an author's family background, social class and network, and life circumstance during the event and/or during production of the narrative determined his emphasis and inclusion of details regarding catastrophic events. All of these dictated room for maneuver or agency in an author's narratives and his judgment regarding details.

Authors did copy or borrow information from each other, at times with little acknowledgment to the original author. This was the textual environment during the Mamluk period and although the modern concept of plagiarism did not exist, classical Islamic scholars were well aware of authors who claimed something as their own which was actually a copied.³¹³ Bacharach has noted that Ibn al-Furāt (759-828/1357-1424) copied from Ibn Duqmāq (745-809/1349-1407), Maqrizi (765-844/1364-1441) from Ibn al-Furat, and Ibn Hajar 'Asqalanī (773-852/1372-1449) from Maqrizi.³¹⁴ Rosenthal discovered that Ibn al-Kathīr (702-774/1301-1373) copied extensively from Ibn Duqmaq and al-'Aynī (762-855/1361-1451) also copied from Ibn Duqmāq³¹⁵ and Ibn Hajar 'Asqalani.³¹⁶ Goldziher found that Maqrizi copied extensively from the famous Zahiri ibn al-Hazm.³¹⁷

³¹³ See Frédéric Bauden "Maqriziana IX: Should al-Maqrīzī Be Thrown Out With the Bath Water? The Question of His Plagiarism of al-Awḥadī's *Khiṭaṭ* and the Documentary Evidence," *Mamluk Studies Review*, XIV, 2010, 159-232, accessed March 6, 2013, http://Mamluk.uchicago.edu/MSR_XIV_2010-Bauden-pp159-232.pdf.

³¹⁴ Bachman, Jere L. "Circassian Mamluk Historians and their Quantitative Economic Data," *Journal of the American Research Center in Egypt* 12, 1975, 84, accessed September 10, 2013, <http://www.jstor.org/stable/40000010>.

³¹⁵ Franz Rosenthal, *A History of Muslim Historiography*, 356.

³¹⁶ Frédéric Bauden, "Maqriziana IX: Should al-Maqrīzī Be Thrown Out?" 219.

³¹⁷ Ignaz Goldziher, *The Zahiris, Their Doctrine and Their History*, (Leiden, Netherlands: Brill, 1971), 185.

CHAPTER 5

AVOIDING RIGIDIFYING CATEGORIES: MAQRIZI, IBN HAJAR

ASQALANI, AND IBN TAGHRIBIRDI

ON PLAGUE EPIDEMICS

Narrative Identity Approach: Constellations of Relationships, Mamluk Ulama as Active Interpreters of their Society

This dissertation employs a combination of Margaret Somer's narrative identity approach and Conrad Hirschler's network approach to explore three authors' perceptions vis-à-vis major plague epidemics in the first half of the fifteenth century. Somer's recommends that social historians "avoid the rigidifying aspects of identity by incorporating into the core conception of identity the categorically destabilizing dimensions of time, space and relationality."³¹⁸ She advises a focus on a "constellations of relationships" that are not fixed in time or space. Identity is transient, impermanent and dynamic, not monolithic. A single isolated phenomenon cannot be made sense of except in "temporal and spatial relationships to other events."³¹⁹

Narrative Identity Approach emphasizes how we characterize or locate people within a processual and sequential movement of relationships and life-episodes. It assumes people act in a particular way because not to do so would fundamentally violate their sense of being at that particular time and place... the connectivity of parts is precisely why narrativity turns 'events' into episodes, whether the sequence of episodes is presented or experienced in anything resembling chronological order. This is done through 'emplotment' ... that translates events

³¹⁸ Margaret R. Somers, "The Narrative Constitution of Identity: A Relational and Network Approach," *Theory and Society* 23, 1994, 606, 616, accessed September 13, 2013, <http://www.jstor.org/stable/658090>.

³¹⁹ Ibid.

into episodes. As a mode of explanation, causal emplotment is an accounting (however, fantastic or implicit) of why a narrative has the story line it does... In fact it is emplotment that allows us to construct a significant network or configuration of relationships.³²⁰

Somers notes that social scientists “are embedded as contemporary actors in history.” With regard to the Black Death and later epidemics, contemporary historians are embedded in the age of microbiology and broad-spectrum antibiotics while analyzing catastrophic epidemics with mortality rates of forty to one hundred percent. This conundrum, contemporary medical historians’ knowledge of the progression of plague and its many manifestations, vis-à-vis classical Islamic narratives on plague epidemics, can lead to questions over the validity of these historical accounts. For example, questions arise over the dearth of historical mention on rat mortality based on contemporary knowledge that human plague infection first requires the deaths of infected rodents. Data on mortality, symptomology and descriptions of animal infection as noted by classical authors must be viewed within the context of their lives, the classical medical environment, their constellations of relationships, and the authors’ decisions to either include or exclude specific information. Current scientific data with regard to plague is of interest because it forms the environment within which contemporary researchers work, but it does not make the information presented in classical accounts of plague epidemics suspect.

Conrad Hirschler incorporates many of Somer’s suggestions in his exploration of author agency in several historical narratives. Hirschler explores the agency of classical ulama in terms of “the context in which they (the authors) acted, the learned tradition in

³²⁰ Ibid. 616-617, 624.

which they stood, and the textual environment in which they composed their work.”³²¹ His emphasis, like Somers, is on processes and relations, which are transient, impermanent and dynamic. He suggests focusing on the author’s educational background, his specializations, his ties to different members in society, and his personal comments on events to determine if the ulama was simply interested in the Mamluk elite, praising them in hopes of professional rewards, or was he providing social commentary on the general population to drive home his point? Hirschler notes that classical Arabic texts are often viewed in a negative light as jumbles of chaotic stories, antidotes, poetry and quotations often copied from author to author. He advises viewing these works as more “a discourse on multiple texts.”³²² In this way, the modern historian can analyze multiple texts to form a more detailed picture of events and personalities. Focusing on critical events, such as epidemics, presented by several authors helps provide a better understanding of the authors and Mamluk society.

Hirschler advocates the network approach to textual analysis with a focus “on the individual capacity to act independently within a given context. Belonging to a certain group or acting within a specific institution is not seen as a limiting factor in the individual environment...So an author’s position is not only determined by his formal teaching position, but by his belonging to an informal network.”³²³ The author’s independence to act and maneuver within society is reflected in his narratives. Can he criticize the elite Mamluks and other ulama with no subsequent personal or professional setbacks? Is he only concerned with the elite or does his interests include the general population? Is the plight of women or minority groups found in his narration of events?

³²¹ Konrad Hirschler, *Classical Arabic Historiography*...1.

³²² Ibid. 5.

³²³ Ibid. 18-19.

Hirschler suggests moving beyond viewing the formal positions of many ‘ulama as a limiting factor and focusing on components of informal networks. He suggests asking the following questions in analyzing any classical Islamic historical narrative, while advising that some of the relevant information will be unavailable.

- What is the family history of the ‘alim? Was his father or grandfather important and were these links retained? Were there important marriage links to important individuals?
- Is he forced to leave from a professional position, if so was he able to return?
- Did he build a mosque or madrasa, did he perform the Hajj to Mecca with anyone, and was he a guest at anyone’s home.
- If his primary patron dies or is killed, does the ‘alim still retain his position?
- Does the death of a sultan and the advent of another effect the course of his life?
- Does he hold any iqta’ (as possible sign of financial independence).
- Is the ‘alim closer to his teacher or the ruler?
- To which legal school does he belong?
- Does he criticize others and are these criticisms aimed exclusively at the elites or also at other ulama and those employed in the madrasas?
- What type of benefits does he receive while teaching?
- How many ijazahs (licenses to teach) does he hold and how many samāhs (certificates of attending a lecture)?
- Did he lead any funeral prayers for the elites?
- How did he die and did any well-known ‘alim lead his funeral procession?
- Does he have a primary and secondary field of learning?

- Did the author write or revise, possibly another ‘alim’s text, to include information that might have been lost or to present it in a more accessible form? Without new information, can the text be read as a commentary on society at the time?³²⁴

Hirschler advocates an exploration of relational links, or what Somers calls constellations of relationships, to explore classical narratives and discover their subtle complexities.

These authors employed a variety of literary means to endow the moldable material, whether true or false, with specific meanings...the existence of ‘fictional elements’ in a chronicle does not mean the entire [chronicle] is fictional. To identify fictional elements simply adds another perspective...authors were able to display their narrative agency or ‘to innovate upon received cultural categories’...in accordance with their personal and collective ideas, interests and commitments.³²⁵

In line with this view, Richard Evans notes the need for a reappraisal of classical historiography as “a repository of truthful information.” This information is presented by different ulama in different ways and from various points of view, all influenced by the author’s life situation and his network. Evans concludes, “both [historians and classical authors] choose and mirror (their) subject according to the cultural norms governing (their) time.”³²⁶

Three Prominent and Diverse Ulama

This dissertation concentrates on three prominent and diverse fifteenth century ulama and their descriptions of three devastating plague epidemics in Egypt and Syria. Using many of the components in Hirschler’s list, the background, social links and

³²⁴ Ibid. 6-55.

³²⁵ Ibid. 123.

³²⁶ Ulrich Haarmann in Hugh Kennedy, *The Historiography of Islamic Egypt...* 150.

networks of each author will be examined before moving to the next author's accounts of the major plague epidemics that struck Egypt and Syria in 1419, 1429-1430 and 1438-1439. The authors' descriptions of epidemics will provide information on the authors, the diversity of their backgrounds and networks, and their ability to act independently vis-à-vis the ulama monopoly over the production of information. Many of the descriptions of epidemics will be used to establish each author's area of concern during these epidemics. Maqrizi's *Suluk*, Ibn Hajar's *inba'*, Ibn Taghribird's *Nujum* and William Popper's excellent translation of the *Nujum* will be utilized for this scholar's descriptions.³²⁷ The narratives are not compared for validity of data or information within the context of contemporary scientific research on plague, which remains inconclusive. Of interest are the similarities and differences in the authors' descriptions and details of the epidemics and what this information reveals about them. The diversity of three ulama, the commonalities and differences in their lives, and their narrative agency as demonstrated in their accounts of events are of primary interest.

Taqi al-Din al-Maqrizi (765/1364-846/1442)

Maqrizi was born in Cairo in 765/1364 into a scholarly family. His father, Ali, was a Hanbali hadith scholar from Ba'labakk. Upon 'Ali's relocation to Cairo he held a few minor positions in the judiciary before his death in 779-80/1378 at the age of fifty. Maqrizi's ancestry is a bit obscure, but it does appear linked to the Fatamids. One of his ancestors was apparently Abū Tamīm Ma'ad al-Mu'izz al-Dīn Allah (r. 341-364/953-975), the first Fatamid Caliph of Egypt and the founder of Cairo. Ibn Hajar Asqalani,

³²⁷ Only changes to dated terminology have been made when citing Popper's translation. For example, the term *Mohammadens* has been changed to *Muslims*.

Maqrizi's historian friend and student writes in his *al-Durar al-kaminah (Hidden Pearls)* that Maqrizi told him that his father had said he was a descendent of al-Mu'izz al-Din, but he "should not reveal this fact to anyone he could not trust."³²⁸ Questions over Maqrizi's descent from the Fatamids were occasionally raised when other ulama wrote biographies about him. Ibn Taghribirdi, Maqrizi's student, notes that his teacher's ancestry could be traced back to 'Ali via the Fatimid Caliphs and that Maqrizi's nephew al-Naṣir Muhammad had told him this.³²⁹ Rival historian al-Sakhāwī (831-902/1428-1497) uses the derogatory term al-'Ubaydī, to describe Maqrizi's ancestry.³³⁰ This is an unflattering title adopted by Sunni commentators who rejected the Fatimid claim of the Prophetic line. 'Ubayd Allah was the first in the Fatimid line to claim descent from the Prophet's daughter Fāṭimah.³³¹

Maqrizi's maternal grandfather, Ibn al-Ṣā'igh al-Hanafi (709-776/1310-1375), was one of the most famous Hanafī Faqihs (experts in Islamic jurisprudence) of his time; he held many high-level judiciary posts and produced several Arabic grammar books. His paternal grandfather, Abd al-Aqdir ibn Muhammad (d. 731/1331) died before Maqrizi's birth. Abd al-Aqdir was a celebrated Hanbali scholar in Syria, and a well-known muhaddith. On both the maternal and paternal sides of his family, Maqrizi came from a long line of intellectuals.³³²

Maqrizi was only thirteen years old at the time of his father's death and he was raised in his maternal grandfather's home. Upon his father's death, Maqrizi unexpectedly

³²⁸ Paul Walker, "Maqrizi and the Fatimids," *Mamluk Studies Review* VII, 2, 2003, 86, accessed September 17, 2013, http://Mamluk.uchicago.edu/MSR_VII-2_2003-Walker_pp83-97.pdf.

³²⁹ Ibid. 87.

³³⁰ Sakhawi is well known for this criticisms directed towards many ulama. He was not particularly fond of Ibn Taghribirdi because he was a Turk and disparaged his ability as a scholar. See William Popper, "Sakhawi's Criticism," 371-389.

³³¹ Ibid. 7-8.

³³² Ibid. 10. Yosef and Schimmel Kolleg, "Mamluks and Their Relatives... 72.

switched madrasahs, from his grandfather's Hanafi School of Jurisprudence to the Shafi'i School, the dominant school at the time. Ibn Hajar, a Shafi'i himself, commented on this switch: "when he became aware and competent he switched to Shafi'ism."³³³ Abū Maḥsin notes that Maqrizi's disdain for the Hanafi School was due to its members' approval of the "government's confiscation and secularization of many old buildings in Cairo."³³⁴ Anyone could say an aging building was a danger to people in the neighborhood, and the government confiscated it and then sold it. Even stately old mosques were included in this practice of selling off old buildings. However, Maqrizi's switch to the Shafi'i School could also have been a pragmatic move since the Shafi'i School continued to retain a dominant position over the other three schools in the Mamluk period.

Maqrizi studied hadith, fiqh, grammar, adab (literature), history and qirā'āt (recitation of the Quran) and was quite accomplished in all subjects he pursued. He studied with several illustrious teachers including the austere muhaddith, al-ʿImad al-Hanbali (780/1378-855/1451) and Imam al-Sirāj ibn al-Mulaqqin al-Shafi'ī, known as al-Nahwī (723/1323-804/1401) and Ibn Khaldun (732/1332-808/1406).³³⁵ Al-Nahwī was an expert in fiqh, hadith and Arabic grammar and is known for his extensive commentary on Bukhari's *Sahih*.³³⁶ Ibn Khaldun, one of the most famous historians and philosophers of the classical period, wrote the *Muqaddimah* and was an expert in historiography, sociology and economics.

Eventually Maqrizi focused primarily on history and as noted by his former

³³³ Nasser Rabbat, "Who Was Maqrīzī?" 12.

³³⁴ Ignaz Goldziher, *The Zahiris*, 182.

³³⁵ Nasser Rabat, "Who Was Maqrizi?" 11.

³³⁶ Al-Nahwi's commentary has recently been published in a thirty-six volume set by the State of Qatar.

student and rival historian, Ibn Taghribirdi, “Maqrizi was hands down the dean of historians.”³³⁷ Sakhawi cites Maqrizi himself saying that he produced over a hundred volumes on history and contemporary events, “relying on first-hand evidence and earlier compilations.”³³⁸ In his narratives, Maqrizi focused as a historian on economic issues, currency problems, price instability, famines, epidemics and popular discontent. The organization of his narratives begins with the year divided into months and details of the events that transpired each month. Each chapter is followed by a biographical list of those who had died that year.

Maqrizi began his professional life as a scribe in the chancellery, was elevated to deputy qadi, then the imam of the al-Hakim Mosque and the khatib of the ‘Amr ibn al-‘Āṣ Mosque.³³⁹ At this point it appears that Maqrizi was successfully navigating the elite Mamluk circles and receiving prominent appointments through his network. However, it is not clear exactly what relational connections helped to spur his success. It is possible that his ties to Ibn Khaldun, whom Sultan Barquq (784/1382-791/1389, 791/1389-802/1399) appointed as Chief Mālikī Qadi in 786/1384 may have helped Maqrizi navigate the inner elite circles. Maqrizi studied time keeping (*mīqāt*) with Ibn Khaldun and later wrote his biography, but Ibn Khaldun never mentioned Maqrizi in his writings. In some way Maqrizi was tied into the hierarchy of Mamluk patronage, possibly through his friendship with Yashbak al-Sha’bānī, the sultan’s executive secretary and tutor for Sultan Barquq’s son Faraj, or through Maqrizi’s relationship with Sultan Barquq. “Al-

³³⁷ Rabbat, “Who Was Maqrizi? 5.

³³⁸ Anne F. Broadbridge, “Academic Rivalry and the Patronage System in Fifteenth Century Egypt: al-‘Aynī, al-Maqrīzī, and Ibn Ḥajar al-‘Asqalānī,” *Mamluk Studies Review* III, 1999, 87, accessed Sept. 1, 2013, http://Mamluk.uchicago.edu/MSR_III_1999-Broadbridge.pdf.

³³⁹ *Ibid.* The imam is the community leader and leader of the prayers at the mosque, while the khatib usually gives the Friday prayer, but can also hold wider responsibilities in the community.

Sakhāwī reports that al-Maqrīzī was on good terms with the sultan, while Ibn Taghribirdi describes al-Maqrīzī as ...a companion (*nadīm*).³⁴⁰

Despite these statements that Maqrizi was close to Sultan Barquq, he is well known for his criticism of Barquq's first reign (1382-1389), and the Circassian Mamluks in general.³⁴¹ Maqrizi did not mince words when he accused the sultan of various weaknesses including drinking, cowardly actions, deceit and cunning. Maqrizi also held Barquq responsible for infringing on the upper classes and allowing the lower classes, the 'ammah, to rise up. He was critical of the senior amirs under Sultan Barquq because they were simple soldiers who had bribed their way to the top, and were not promoted based on their abilities. Maqrizi is more forgiving in his assessment of Sultan Barquq's second period of rule (1390-1399).³⁴² The scholar did not limit his censure to members of the military elite; he also accused other ulama of taking bribes for appointments and using the intercession of powerful patrons to acquire prominent positions. These accusations were not empty; often ulama paid for high level appointments or embezzled funds from pious endowments.

Sultan Barquq was not the only sultan to be the target of Maqrizi's disapproval. Maqrizi also described Sultan Barsbay in a negative manner and held him and his unruly Mamluks responsible for the poverty of the general population.³⁴³

There were tales about him, [tales] of avarice, stinginess, and greed, cowardice, tyranny, distrust, and aversion to the people, as well as...capriciousness of events, and a lack of stability, of the likes of which we had never heard. Ruin prevailed in Egypt and Syria, as well as a scarcity of money; people became poor, and the

³⁴⁰ Ibid. 87-88.

³⁴¹ See Sami G. Massoud, "Maqrizi as a Historian..."

³⁴² Ibid. 122-133.

³⁴³ It is interesting that Maqrizi appears concerned with the welfare of the 'ammah in his criticism of Sultan Barsbay when he was earlier critical of Sultan Barquq for allowing the 'ammah to rise up. The fluid attitudes of these authors depend on their life circumstances at specific times.

behavior of the rulers and governors worsened, despite the attainment of (Barsbay's) hopes and goals, the subjugation of his enemies, and their death at the hands of others, [therefore] know that God has mastery of all things.³⁴⁴

In Jumada II 801/March 1399, Maqrizi was appointed to the prestigious position (*manṣib*) of market inspector (*muḥtasib*) with close ties to the sultan. The muhtasib was responsible for many things including “regulation of weights, money, prices, public morals, and the cleanliness of public places... supervision of schools, instruction, teachers and students, public baths, general public safety and the circulation of traffic.”³⁴⁵ Despite the prestige often associated being appointed muhtasib, exercising the functions of the position could be dangerous because the muhtasib was often the most convenient target for mass discontent. The position was tenuous and not only the Sultan, but also powerful amirs and other ulama, could use their ties to the Sultan to influence his decisions on muhtasib appointments and dismissals.

The precarious nature of this position is apparent in the competition between Maqrizi and rival historian al-Ayni that began with Maqrizi's appointment as muhtasib in March 1399 by Sultan Barquq. Only two months later, Maqrizi was dismissed and al-Ayni was appointed through the intervention of a powerful amir, Jakm min 'Awaḍ. Al-Ayni was dismissed one month later, but then reappointed from November 1399 to February 1400. In February 1400, Maqrizi once again replaced al-Ayni and retained the post for almost one year. With Amir Jakm's re-intervention, al-Ayni was once again

³⁴⁴ Anne Broadbridge, “Academic Rivalry,” 93-94.

³⁴⁵ Ibid. 89. Carl Petry notes that “the muhtasib ideally should act as impersonal agents of equity, enforcing standards of weights and measures and fair business practice...But (he) increasingly became tangled in the web of price controls, and forced purchasing that the imperial monopolies necessitated. He was virtually helpless in the face of marauding out-of-service Mamluks who terrorized the markets of Cairo sporadically.” *The Civilian Elite of Cairo*, 223. Kristen Stilt notes that the muhtasib functioned within a framework of scholarly jurisprudence (fiqh) and the sultan's siyāsiyah, or the legal authority of the sultan. See Kristen Stilt, *Islamic Law in Action: Authority, Discretion, and Everyday Experiences in Mamluk Egypt*, (Oxford University Press: Oxford), 2011.

reappointed in October 1400, but for a brief four months.³⁴⁶ The turbulence of muhtasib appointments and the interference of Mamluk elites perhaps soured Maqrizi on accepting other appointments later in his life.

Although Maqrizi was a Shafi' he does not appear to have been particularly loyal or enamored with any of the four schools of jurisprudence. He eventually threw his support to the uncommon Zahiri School of Law; the Zahiris' focus was the literal or manifest meaning of the Quran and hadith and the school "had a strict literalist approach to interpretation and to legal speculation and opposed all other madhābs (schools), especially the Malikis and Hanafis on basic interpretive issues."³⁴⁷ Maqrizi praised them for their "fervent struggle for justice and truth, chastity and self-restraint."³⁴⁸ The Zahiris were viewed with suspicion by the four Sunni madhābs because its followers rejected individual opinions and qiyās (analogical reasoning) and thus "the Sunnis felt threatened...because the Zahiri notion of law undermined their authority as legal scholars."³⁴⁹

Maqrizi leanings towards the Zahiris later in life may indicate his belief that the four orthodox schools were superfluous and denied the mission of the Prophet and God's plan for mankind. Because he believed that the early Muslims did not interpret the

³⁴⁶ Ibid 90, 87. Ibn Khaldun was also a victim of this instability. He was appointed in 1384 as Chief Maliki Qadi by Sultan Barquq, forced out by his enemies in 1385, and only reappointed in 1399. Amir Jakm was one of Barquq's elite or special Mamluks (*khāṣṣakīyah*) and eventually the private secretary of the court (*dawādār*). He rebelled against Sultan Faraj, and set up his own rule in northern Anatolia and southern Syria (809/1406-7), and was killed by the Ak Kuyunlu Turkmen. Anne Broadbridge, "Academic Rivalry," 89.

³⁴⁷ Nasser Rabat, "Who Was Maqrizi?" 12.

³⁴⁸ Ibid. 13.

³⁴⁹ Lutz Wiederhold, "Legal-Religious Elite, Temporal Authority, and the Caliphate in Mamluk Society: Conclusions Drawn from the Examination of a 'Zahiri Revolt' in Damascus in 1386," *JMES*, 31, no. 2 (May, 1999), 204-205, accessed Nov. 18, 2013, <http://www.jstor.org/stable/176293>. The author notes the difficulty in determining a scholar's alliance to the Zahiri School. Ibn Taghribirdi's father was called al-Zahir, not because he was part of the school, but because he was owned by the first Circassian Sultan al-Zahir Barquq.

Traditions, he maintained that Muslims of his time should emulate their ancestors. His interpretation of early Islamic history probably alienated him from the other ulama competing for and even paying for professional appointments. It was probably difficult for most of Maqrizi's peers to live up to his exacting standards of behavior and morality. His connection to the general population, and his exasperation with what he viewed as deviations from Islamic Tradition are evident in the following statement.

The truth that cannot be doubted is that the religion of God is a conspicuous matter containing nothing hidden, it is a public matter that hides no secret; its totality is obligatory for everyone without exception. The Prophet has not hidden a single word of the law; everything which he told to his most intimate circle, be it wife or relations, he would have also told to any white or black man, or any ordinary herdsman. He had no great secret, no mystic allusion (*ramz*), nothing esoteric (*batin*); he summoned all of mankind to his teachings. If he had kept anything secret, he would not have completed the mission with which he was charged. Whoever makes such claims in spite of it is a *kāfir* (unbeliever) according to the concurrent teaching of the whole community. The origin of every heresy is the departure from the words of the forefathers and deviation from the conviction of the first Muslim generation.³⁵⁰

Maqrizi appears to hold all the orthodox schools in disdain due to their deviation from the ways of the Muslim ancestors. He was critical of the ulama's competing for judgeships, the pursuit of money and possessions, and the practice of passing a professional appointment on to a relative or friend, many of whom Maqrizi considered unqualified. In his *khiṭāṭ*, Maqrizi's disdain for the position of chief qadi in general, but that of the Maliki qadi in particular, is obvious.

The office of the judge has remained now for some time the domain of the companions of Saḥnūn.³⁵¹ They fell upon the secular advantages (contending with each other from them) just as stallions fall upon female camels until the office of judge became hereditary in the family of Banū Hāshim. They inherited

³⁵⁰ Ignaz Goldziher, *The Zahiris*, 185.

³⁵¹ Saḥnūn was a Maliki scholar, see Jonathon Brockopp, "Contradictory Evidence and the Exemplary Scholar: The Lives of Saḥnūn b. Sa'īd (d. 854), *IJMES* 43 (2011), 115-132, accessed November 17, 2013, <http://dx.doi.org/10.1017/S0020743810001224>.

the judgeship from one another just as property is bequeathed in a family.³⁵²

The fluid nature of Maqrizi's beliefs system allowed him to embrace a literal approach to the Quran and hadith, while simultaneously acknowledging dreams as predictors of the future and the importance of the zodiac signs. He believed the Egyptian people were particularly adept at predicting the future because the sign of Gemini³⁵³ governed them. Maqrizi apparently predicted the rise of Barquq as sultan after an acquaintance described a dream in which Barquq appeared as an ape "preaching from a minbar and unsuccessfully attempting to lead the people in prayer."³⁵⁴ Maqrizi took this to mean that Barquq would become sultan because he considered the Circassian to be niggardly and corrupt, qualities he attributed to apes. With regard to his criticism of the Mamluks, Maqrizi often cited the Sufi Dhū al-Nūn al-Miṣrī,³⁵⁵ who had successfully decoded a Pharaonic inscription in the lost temple of Ikhmīm that warned, "beware of freed slaves, young men, military men that become slaves, and Nabataeans who claim that they are Arabs."³⁵⁶

Sakhawi was very critical of Maqrizi and accused him of using his notebooks and cards to rewrite large sections from other authors with no acknowledgement to original sources. Sakhawi suspected Maqrizi of taking his friend and colleague al-Awḥadī's (d. 810/1408) *khiṭaṭ* manuscript after his death, and using most of the information to produce

³⁵² Ignaz Goldziher, *The Zahiris*, 184.

³⁵³ The sign of Gemini is usually associated with quick thinking, friendliness, adaptability and curiosity. I was unable to find any sources linking the sign to predicting the future.

³⁵⁴ Robert Irwin, "Maqrīzī and Ibn Khaldūn, Historians of the Unseen," 225.

³⁵⁵ Much of the occult material attributed to this eighth-century Sufi is pseudepigrapha. Ibid. 228.

³⁵⁶ Robert Irwin, "Maqrīzī and Ibn Khaldūn, Historians of the Unseen," 228. I was unable to find this quote in the original Arabic text as cited by Robert Irwin.

his own *Khiṭaṭ* without mention of al-Awḥadī.³⁵⁷ During the classical period there were professional rivalries among ulama; Sakhawī, and al-Jawhārī were rivals of Maqrizī; Ibn Taghribirdī was a former student and friendly rival while Ibn Hajar ‘Asqalānī considered himself a friend.³⁵⁸ Historians of this period recorded the same events and vied for the same administrative positions. Bitter competition was evident in one alim’s comments with regard to another ulama or his work. Professional jealousy was often veiled in criticisms with regard to morality and religious virtues.

Described as solitary, kind, proud and competitive, Maqrizī’s religious virtue and mild asceticism (*zuhd*) is often stressed. Sakhawī accused him of practicing divination and numerology and he also raised questions over Maqrizī’s suspect Fatimid lineage. In all of his works, Maqrizī displays a sense of justice and comments on how daily crises, often spurred by the Mamluk elite, affected the common people. He had a noted animosity towards Turkish and Persian Sufis who had not mastered Arabic, and the Mamluks, particularly the Circassians, and the Hanafī School of Law in general.³⁵⁹ His criticisms encompassed all social groups; he was not afraid to lash out at the elite, other ulama or the masses. His insults towards Sultan Barquq during the sultan’s first reign spurred Ibn Taghribirdī to note that after Maqrizī’s continued verbal attacks on the Sultan, “he had no success with the rulers who came after him (Barquq); they kept him away without showing him any favor, so he on his part took to registering their inequities

³⁵⁷ According to Frédéric Bauden, al-Sakhawī accused Maqrizī of copying al-Awhadī’s work on several occasions. “Al-Maqrīzī had supposedly laid hands on his colleague’s drafts upon his death (811/1408) and clean-copied the whole lot, adding some data, but publishing it in his own name under the title *Kitāb al-Mawā’iz wa-al-i’tibār fī dhikr al-khiṭaṭ wa-al-āthār*.” See “Maqriziana IX: Should al-Maqrizī be Thrown Out...” 160.

³⁵⁸ Rabat, “Who Was Maqrizī?” 4.

³⁵⁹ Levanoni, “Who Were the ‘Salt of the Earth...’” 81.

and infamies.”³⁶⁰

Ibn Taghribirdi noted that Maqrizi was a bit isolated while his chief rival al-Ayni continued to enjoy close relationships with several sultans.³⁶¹ However, Maqrizi appeared to retain a favorable relationship with Sultan Faraj and in 1408 accompanied the sultan to Damascus. Sultan Faraj appointed him instructor of hadith at the Ashrafiyah and the Iqbaliyah madrasahs and also waqf supervisor at the Nuri (al-Zangi) Hospital.³⁶² Maqrizi was also offered the prestigious position of Chief Shafi'i Qadi in Damascus, but he refused the appointment. There is only speculation regarding Maqrizi's refusal of this appointment. Anne Broadbridge suggests disillusionment with the corruption and hypocrisy of government or possibly Maqrizi simply wanted to focus his attention on writing history.³⁶³ The idea of a corrupt government tainting his work is suggested when he told a friend in Damascus “to quit seeking favors (from) the amirs if he was really sincere about the renunciation of worldly gains.”³⁶⁴

His gradual withdrawal from the courtly circles began after he was offered the Shafi'i Chief Judgeship. With the death of Sultan Faraj in 1412 and the advent of Sultan al-Mu'ayyad Shaykh (r. 814/1412-824/1421), Maqrizi's ties to the governing elite appear weakened. During al-Mu'ayyad's reign, Maqrizi withdrew entirely to focus on writing and teaching, and there are few details of his life in this period. Only Sakhawi mentions that Maqrizi had a teaching position at the prestigious Mu'ayyadiyah Mosque which was

³⁶⁰ Ibn Taghribirdi, trans. William Popper, *The History of Egypt*, 18, 143

³⁶¹ Sami G. Massoud, “Maqrizi as a Historian of the Reign of Barquq,” *Mamluk Studies Review* VII, 2, 2003, 77, accessed August 2, 2013, http://Mamluk.uchicago.edu/MSR_VII-2_2003-Massoud_pp119-136.pdf.

³⁶² Al-Birmaristan al-Nuri al-Kabir was built in 1154 by Nur al-Din Zangi in Damascus. This was a fully operational hospital and also a teaching hospital where ibn al-Nafis studied. *Shining History*, accessed November 14, 2013, <http://www.shininghistory.com/2009/06/al-nuri-hospitaldamascus-in-1154.html>.

³⁶³ Broadbridge, “Academic Rivalry...” 91.

³⁶⁴ Rabat, “Who Was Maqrizi?” 17.

a huge complex containing a madrasah, mausoleum and khānqāh³⁶⁵. If Maqrizi did hold a prominent position at this complex, he never mentions it in his writings. Ibn Taghribirdi never mentions that Maqrizi taught at Mu'ayyadiyah in his biography of Maqrizi.³⁶⁶

Maqrizi's further isolation may have been spurred by Sultan al-Mu'ayyad's dismissal and killing of the scholar's last patron and friend of twenty years, Faḥ Allah, the sultanic secretary, in Rabi' I 816/June 1413.³⁶⁷ In this period Maqrizi's favorite concubine died and then in 1423 the last of his offspring, Fatimah, predeceased him. In 1429 both Maqrizi and his rival al-Ayni were removed as qadis due to incessant arguing over different interpretations of the *Ṣaḥīḥ al-bukhāri*.

Maqrizi spent his final years visiting with ulama and students and making pilgrimages to Mecca between 1430 and 1435 with his family. He died on January twenty-eight, 1442 after a long illness and he was quietly buried at Maqābir al-Ṣufiyah in Cairo. Al-Ayni, despite having been friendly with Maqrizi on occasion, wrote only five lines in Maqrizi's death notice, incorrectly stating that he died on January twelfth.³⁶⁸ Al-Ayni also noted that while Maqrizi was preoccupied with history he was "also obsessed with darb al-ramal, or geomancy. Sakhawi described Maqrizi as an expert on ... the astrolabe, geomancy (earth divination) and mīqāt (time-keeping)."³⁶⁹ Maqrizi's former student and friend, Ibn Hajar, wrote twenty-five lines about his mentor and praised him for his pleasant personality and his expertise in history.³⁷⁰ Ibn Taghribirdi described Maqrizi as "an excellent, versatile, thorough, and conscientious scholar, religious,

³⁶⁵ A building designed for gatherings of a sufi brotherhood (*tariqa*).

³⁶⁶ Broadbridge, "Academic Rivalry..." 92.

³⁶⁷ Rabat, "Who Was Maqrizi?" 16-17.

³⁶⁸ Broadbridge, "Academic Rivalry..." 105.

³⁶⁹ Irwin, "Al-Maqrīzī and Ibn Khaldūn, Historians of the Unseen," 225.

³⁷⁰ Broadbridge, "Academic Rivalry," 105-106.

beneficent, caring for the people of the Sunnah; he was greatly inclined towards tradition which he observed in his everyday life...³⁷¹

Ibn Hajar ‘Asqalani (773/1372-852/1448)

Ibn Hajar was one of the greatest scholars of the Mamluk period; he was a judge and prolific writer whose expertise in hadith or prophetic traditions exceeded other ulama’s knowledge. Ibn Hajar was born in 773/1372 in Cairo to a famous scholar, Nūr al-Dīn ‘Alī, who died when Ibn Hajar and his sister were young. Their guardian, al-Zakī al-Khurūbī (d. 787/1385) was a member of a famous and wealthy merchant family³⁷² who took the young Ibn Hajar to Mecca.³⁷³ While in Mecca, Ibn Hajar at the age of twelve was capable of giving the Tarawīḥ prayers during Ramadan. Later, the boy made several trips to further his studies, traveling to Yemen, the Hijaz and Syria, returning to Cairo in 805/1403-1404.³⁷⁴

Ibn Hajar had the financial means to receive instruction from some of the best scholars in Egypt, Syria and the Hijaz and he had many illustrious teachers. In addition to Maqrizi, Ibn Khaldun, al-Awḥādī, and Ibn Duqmāq,³⁷⁵ he studied Shafī’i fiqh with al-Bulqīnī (d. 806/1403) and Ibn Al-Mulaqqin (d. 804/1401). He studied hadith via dictation for ten consecutive years with Zayn al-Din al-Iraqī (d. 800/1397) and later in Damascus and Jerusalem with Shams al-Din al-Qalqashandi (d. 809/1406), Badr al-Dīn al-Bilisī (d.

³⁷¹ Goldziher, *The Zahiris*, 180.

³⁷² For detailed information on the wealth of the members of the Khurubi family see Sabri Khalid Kawash, “Ibn Hajar al-‘Asqalanī (1372-1449): A Study of the Background, Education, and Career of an ‘Alim in Egypt,” (Ph.D. diss., Princeton University, 1969), 25-29

³⁷³ Sabri Khalid Kawash notes that one year before the death of Ibn Hajar’s father, he took the young Ibn Hajar to Mecca when he was only three years old. “Ibn Hajar al-‘Asqalanī (1372-1449) A Study of the Background, Education and Career of an ‘Ālim in Cairo,” (Ph.D. Dissertation, Princeton University, 1969), 43.

³⁷⁴ Broadbridge, “Academic Rivalry...” 86, 90.

³⁷⁵ Abdul Hakim Murad, Imam Ibn Hajar al-Asqalani, *Sunnah Path*, accessed November 11, 2013, http://www.Sunnah.org/history/Scholars/imam_ibn_hajar_al-asqalani.htm.

803/1400) and Fatimah bint al-Manja al-Tunukhiyya (d. 803/1400)³⁷⁶. Ibn Hajar traveled as a student to Qūṣ (793/1391), Alexandria (798/1395), Damascus (802/1400) and twice to Yemen (800/1397 and 806/1403) with stops in Mecca. Through his studies he became an expert in hadith and fiqh. Ibn Hajar's teachers included a Mamluk amir, Jamāl al-Dīn al-Māradānī, who taught him arithmetic and time keeping.³⁷⁷

Despite indications that Ibn Hajar disliked the game of competing for prestigious appointments such as Chief Qadi, he did practice bribery to replace officials in positions he coveted. He taught hadith at the khanqah of Shaykūnīyah³⁷⁸ in 808/1406, and then two years later he paid the instructor of shafi'i fiqh and took over that position. During this period he also taught fiqh at the Sharīfīyah School. He was a transmitter of hadith at the al-Maḥmūdīyah School, hadith instructor at the Mausoleum of Baybars, and the Jamīliyah School. In 821/1419 he was appointed to teach Shafi'i fiqh at the Mu'ayyadīyah complex, and in 828/1425 at the request of Ibn Hajar, he and his young son were hired at the al-Ḥaṣan School to teach hadith and commentary (tafsīr). As Ibn Hajar's son was too young to teach, Ibn Hajar taught both tafsīr and hadith for an enormous sum of 300 silver dirhams per class.³⁷⁹

Ibn Hajar had several close friends from the a'yan class, both merchant and ulama. Among these were a wealthy cotton trader, Ibn Qaṭṭan (d. 813/1410), and famous scholar and Sufi leader al-Ibnāsī (d. 802/1399), who when offered the appointment as

³⁷⁶ Muhammad Akaram Nadwī lists her as Fatimah bint al-Munajjā who heard the *Nuzhat al-ḥuffaḥ* of Abū Mūsā al-Madīnī from Taqī al-dīn ṣulaymān ibn ḥamzah (taken from al-Dhahabī, *Siyar a'lām al-nubalā'*, xxiii. 88.) *al-muḥaddithāt: The Women Scholars in Islam* (Oxford: Interface, 2007), 135.

³⁷⁷ Levanoni, "Who were the 'Salt...'" 71.

³⁷⁸ See Andi Muhammad Ali Amiruddin, "Ibn Hajar al-'Asqalani on Tarjih and Ta'dil of Hadith Transmitters: A study of his Tahdhib al-Tahdhib," (Thesis, McGill University, 1999), 11-12.

³⁷⁹ Ibn Hajar's combined salary was quite high compared to the other salaries at the school. For example, a student reading the hadith received forty silver dirhams/month, the thirty students at the school received thirty silver dirhams/month and students who called the roll or acted as adjutant (*naqīb*) received an additional ten dirhams/months.

Chief Shafi'i Qadi in 782/1380, refused. With the imprisonment of the Chief Qadi al-Safa'i, Ibn Hajar was appointed Chief Shafi'i Qadi in 827/1423 after initially refusing the appointment.³⁸⁰ Apparently Ibn Hajar regretted this decision his entire life and he was unhappy with the apparent lack of respect shown to ulama, the Mamluk elites' interference in many of the scholars' decisions and the Mamluks constantly demanding flattery in exchange for appointments or in order to retain an appointment.³⁸¹

In addition to Ibn Hajar's ties to other wealthy merchant families, he established ties to the elite early in life when he married Anas Khātūn in 1396. Her father was the nazir al-jaysh (controller of the army) and her mother was a descendant of the nā'ib al-ṣaltānah (viceroy). Anas Khatun was an expert in hadith at eighteen, held several ijazahs from al-Iraqi and Ibn Hajar's wife gave many public lectures in her home to audiences of ulama including Sakhawi.³⁸² Ibn Hajar lived in her family house in central Cairo that the viceroy had built and which carried his name. A school was attached to the house, named after the viceroy, Mankūtumūr, and this was convenient for Ibn Hajar, who often taught classes to visiting students. Ibn Hajar's wife brought great financial and intellectual resources to the relationship. She sponsored an annual reading of the *Ṣaḥīḥ al-Bukharī* and gave generous gifts to family and friends, in addition to sponsoring a waqf in the name of her grandson.³⁸³

Ibn Hajar established himself within the elite circles of Sultan Faraj, holding a number of different positions, some for extensive periods of time. He taught at the Khanqah (sufi lodge) of Baybars and remained there for twenty years and he was an

³⁸⁰ Petry, *The Civilian Elite of Cairo*...235.

³⁸¹ Levanoni, "Who were the Salt." 82.

³⁸² Murad, "Imam Ibn Hajar al-Asqalani," *Sunnah Path*.

³⁸³ Kawash, "Ibn Hajar..." 49 and 51. There were other marriages, most of them brief. See 52-58.

instructor at the Hadith College of al-Kamiliyya.³⁸⁴ He was appointed as Mufti of Dār al-‘Adl in 1408-1419, a position he held until his death in 1448.³⁸⁵ He was appointed khatib of al-Azhar in 819/1416 and in 821/1419 Sultan Mu’ayyad appointed him as mufti of Dar al-Adl to judge the case of accused embezzler Chief Shafi’i Qadi al-Harawi. Ibn Hajar was then appointed instructor in Shafi’i fiqh at the Mu’ayyadi Mosque.

With the death of Sultan al-Muyyad Shaykh (r. 814/1412-824/1421) and the eventual succession of Sultan Barsbāy 825/1422, Ibn Hajar remained in favor. Although Sultan Barsbāy appointed Ibn Hajar to the most prestigious administrative position in Cairo in 827/1423,³⁸⁶ that of Chief Shafi’i Qadi, the two do not appear to have been very close. Ibn Hajar’s inability to speak Turkish and his open disdain for the Turkish language perhaps played a role in this cool relationship between the two. Ibn Hajar was instructor to other well-known classical historians, al-Ayni and Ibn Taghribird. Ibn Hajar and Al-Ayni had a contentious professional relationship, possibly due to Sultan Barsbay’s preferential treatment of al-Ayni. However, this animosity was not a constant state; in 1433 when both men accompanied Sultan Barsbay on a trip to Āmid,³⁸⁷ Ibn Hajar was al-

³⁸⁴ Murad, “Ibn Hajar Asqalani,” *Sunnah Path*.

³⁸⁵ Ibid. 91.

³⁸⁶ According to Amalia Levanoni Ibn Hajar refused this appointment several times before relenting in 1423. He then held the position off and on for the next twenty-one years. “Who Are the ‘Salt of the Earth’?” 72. Carl Petry notes that Ibn Hajar received the appointment at the end of his life in 851/1447-1448 when the current Chief Shafi’i Qadi al-Safaṭī al-Qāhīrī was arrested as an arch criminal (*arbāb al-jarā’im*) by Sultan Jaqmaq, and fined 60,000 dinars. Al-Safaṭi had an illustrious career as a deputy judge under al-Bulqini, Chief Shafi’i Judge and controller of the waqfs and apparently acquired the wealth necessary to pay such an exorbitant fine. He spent his final years in seclusion, another example of a Mamluk sultan’s whims negatively affecting an ‘alim’s professional life. Carl Petry, *The Civilian Elite of Cairo*... 217. It is interesting that Ibn Hajar, Maqrizi and Ibn Hajar’s Sufi teacher, al-Ibnāsī, initially refused the appointment as Chief Shafi’i Qadi, often several times, before relenting and accepting the position. Only al-Ibnāsī never accepted the appointment. Perhaps there was some status in remaining aloof when offered what was arguably the most powerful position in the Mamluk administration, or perhaps the position was similar to that of the muhtasib, attractive in theory but not so in reality.

³⁸⁷ Located in the upper basin of the Tigris River, south east of Arkanīn and south of Ḥiṣm al-Ḥamma,

Ayni's houseguest for the Eid al-Fitr.³⁸⁸

Ibn Hajar, like Maqrizi, appears at times to be conflicted by his interactions with the Mamluk elite, while trying to remain true to his religious beliefs while pursuing professional appointments.³⁸⁹ Ibn Hajar suffered the same instability of appointments that Maqrizi experienced, but to a lesser extent and he appears to have bounced back professionally. A detailed description of Ibn Hajar's career as Chief Shafi'i Judge is enlightening. In December 1423 Ibn Hajar was appointed Chief Shafi'i Qadi, replacing Ṣalīḥ al-Bulqīnī. He held the position for less than one year; in October 1424 he was dismissed and replaced by Shams al-Dīn al-Harawī, who was very unpopular in scholarly circles due to his arrogance towards other ulama. Almost immediately after his dismissal, Ibn Hajar was contacted by the executive secretary of the court (*dawādār*) Janibak, who told the 'alim that if Ibn Hajar paid a sum of money to the sultan, he would be reinstated. In May 1425, Ibn Hajar was again appointed as Chief Shafi'i Judge; it is likely that he paid the money for his reappointment. Ibn Hajar made his feelings known with regard to former Chief Shafi'i al-Harawī and the practice of bribery in general when he said, "he who pays money for the position of grand qadi so that so-and-so is dismissed should be rewarded, not punished."³⁹⁰ Ibn Hajar was dismissed four years later in 1429 and al-Bulqīnī was reinstated but lasted less than a year and in 1431 Ibn Hajar was again reappointed. The cycle continued with al-Bulqīnī being reinstated in 1437 after paying a sum of money to the sultan.³⁹¹

In 1438 Sultan Barsbay was ill and plague struck Egypt; the sultan believed these

³⁸⁸ Broadbridge, "Academic Rivalry..." 99.

³⁸⁹ Ibid. 97.

³⁹⁰ Kawash, "Ibn Hajar Asqalani..." 161-162. This statement comes from Sakhawi and no justification is given for Ibn Hajar's statement.

³⁹¹ Ibid.

events occurred due to his demanding bribes from the ulama for religious appointments. The sultan reappointed Ibn Hajar as Chief Shafi'i Judge and ironically, the sultan asked Ibn Hajar to pay a sum of money to al-Bulqīnī whom Ibn Hajar had replaced. In 1440 Sultan Barsbay dismissed Ibn Hajar, but the sultan's young son, Muhammad, intervened and Ibn Hajar was reinstated. In 1444 a deputy judge who was a friend of Ibn Hajar was beaten and imprisoned without cause and Ibn Hajar stepped down from the position as chief qadi, but the Sultan Jaqmaq reinstated him immediately and released the deputy judge from prison. At this time Ibn Hajar began criticizing the sultan in public, labeling him a tyrant, and the sultan dismissed him again, also removing his titles of grand shaykh and the controller/supervisor (*nāzir*) of the Khanaqah of Baybars. In 1448 Sultan Jaqmaq reinstated Ibn Hajar as chief judge, but his title of nazir was not restored. The scholar voiced his dissatisfaction and the sultan dismissed him a final time, thus ending Ibn Hajar's rocky career as Chief Shafi'ī Judge.³⁹²

Ibn Hajar held more than a dozen endowed professorships during his lifetime and while ulama could not become wealthy holding one position, they could acquire great wealth holding several positions simultaneously. "Appointments to academic positions became objects for sale,"³⁹³ and this is evident in the payments that Ibn Hajar and al-Bulqini made to the sultan for the position of chief judge. Ibn Hajar appears torn between the acquisition of professional appointments and the moral issue of bribery and interaction with the Mamluks. He sold his professorship at the Jamaliyya madrasah for 50 dirhams to one of his students. He also transferred his professorship in Quranic Exegesis at the Sultan Hasan Madrasah to his disciple al-Sandabīsī and noted that he himself

³⁹² Ibid. 164-169.

³⁹³ Berkey, *The Transmission of Knowledge...* 98.

selected his successors for the professorship of hadith at the Mansūriyya (his thirteen-year old son) and also his position teaching Shafi'i law at Shaykhūniyya. At the same time he is critical of a younger 'alim with mercenary motives who paid to have an elderly scholar removed from a lucrative position that the young 'alim coveted.³⁹⁴

Ibn Hajar's fame extended through the region and various rulers requested copies of one of his well-known works, *Fath al-bari (Victory of the Creator)*. In 833/1429 Timur's son, Shahrukh, requested a copy of the first three volumes from Sultan Jaqmaq who complied with the request. Shahrukh later requested the finished set and the sultan again honored his appeal. In addition, the Sultan of Morocco, Abu Faris 'Abdul 'Aziz, requested a copy before all the volumes were finished. Upon the completion of the *Fath al-Bari* in 842/1438 ulama, judges, and many of the elite gathered in Cairo and Ibn Hajar, sitting on a platform, read the final pages. There was a great celebration with poetry readings and distributions of gold and Ibn Iyas noted that it was, "the greatest celebration of the age in Egypt."³⁹⁵

Ibn Hajar died in January 1449 and news of his illness, which lasted about a month, spread across the region and he had many visitors before his death. He was described as a slender, white bearded man, quick to forgive those who had wronged him. He loved calligraphy and chess and was known for his charitable acts. According to Ibn Taghribirdi, approximately 50,000 people attended this illustrious scholar's funeral. The group of mourners included Sultan Jaqmaq and the 'Abbasid caliph who led the prayers. Ibn Hajar was buried near the tomb of the Shafi'i Imam and "prayers were said for him in

³⁹⁴ Ibid. 97-98.

³⁹⁵ Murad, "Imam Ibn Hajar Asqalani," *Sunnah Path*.

Damascus, Jerusalem, Mecca, Hebron and Aleppo.”³⁹⁶

Ibn Taghribirdi (812/1410-875/1470)

Ibn Taghribirdi was the son of the high-ranking Amir Yusuf ibn Taghribirdi al-Atabakī who was probably from Greece or the Balkans,³⁹⁷ and a mother who was a Turkish slave. Amir Taghribirdi originally purchased as a slave by Sultan Barquq, later became a high-ranking official during the chaotic reign of Sultan al-Nāṣir Faraj (r. 801/1399-814/1411). Amir Taghribirdi was a brother of Shīrīn who was Sultan Barquq’s wife and the mother of the sultan’s son, al-Nāṣir Faraj, who became sultan following the death of Barquq in 1399. During this period, Sultan Barquq had incorporated many of his relatives into the sultanate and Ibn Taghribirdi was related by marriage to Sultans al-Mu’ayyad Sheikh (r. 815/1412-824/1421) and al-Zāhir Jaqmaq (841-2/1438-857/1453). Ibn Taghribirdi’s niece was married to Sultan Jaqmaq’s son, Muhammad, and Ibn Taghribirdi himself was Muhammad’s close friend and advisor.³⁹⁸

At the time of ibn Taghribirdi’s birth, his father had reached the pinnacle of his career as Viceroy of Damascus (*nā’ib al-saltāna*), a position equal in status to the Viceroy of Cairo. Amir Taghribirdi wielded great power and was free to make decisions with regard matters to the security of Syria until his death in 815/1412.³⁹⁹ Sultan Faraj was suspected of poisoning Amir Taghribirdi,⁴⁰⁰ and then confiscating his wealth that the sultan “squandered during his last military campaign against rebel amirs shortly before

³⁹⁶ Ibid. 106, 110, 119.

³⁹⁷ Hani Hamza, “Some Aspects of the Economic and Social Life of Ibn Taghribirdi Based on an Examination of His Waqfiyah,” *Mamluk Studies Review* XII, 1, 2008, 147, accessed Sept. 16, 2013, http://Mamluk.uchicago.edu/MSR_XII-1_2008-Hamza-pp139-172.pdf.

³⁹⁸ Yosef and Schimmel Kolleg, “Mamluks and Their Relatives,” 62-63.

³⁹⁹ Berkey, *The Transmission of Knowledge*...104.

⁴⁰⁰ Ibn Taghribirdi, trans. William Popper, *History of Egypt 1381-1469 A.D., Part I, 1382-1399*, V. 13-14, University of California, Berkeley, 1954, xix.

his murder.” However, Sultan Faraj did promise the dying Amir Taghribirdi that he would care for his children like his own, which was of great benefit for the amir’s son. Sultan Faraj was soon murdered, but his successor, Sultan al-Mu’ayyad Shaykh (r. 815/1412-824/1421), took a liking to the Ibn Taghribirdi and the young boy benefited from this early connection to the military elite.⁴⁰¹

Ibn Taghribirdi did not initially receive any of his father’s estate, however, there are indications that he was wealthy. He owned several houses in Cairo and land in Bulaq, in addition to a share in some farmland and part of an iqta’. “As one of the awlad al-nas he received a monthly salary and stipend of fodder, meat and bread...but this could not have been much.”⁴⁰² He was also appointed an Amir of Five, maintaining five Mamluks in his service and receiving a small income from a land grant that he shared with his brother, Qāsim.⁴⁰³ Sakhawi accused him of acquiring wealth through his connection with Jamāl al-Dīn Ibn Kātib Jakam (d. 841/1437) who was the controller of the sultan’s private bureau (*naẓir al-khaṣṣ*) under Sultan Barsbay.⁴⁰⁴ As there are no records indicating that Ibn Taghribirdi was ever offered professional appointments in his lifetime, some of these accusations may hold some truth.

Ibn Taghribirdi was the youngest of ten children with only one sister sharing the same mother. He was raised by his full-sister, Hājir, who had powerful connections through her first marriage to the Hanafī Chief Qadi, and a later marriage to Shaf’i Chief

⁴⁰¹ Ibid. xvi.

⁴⁰² Hamza, “Some Aspects of the Economic,” 147. See also Ahmad Darag, “La Vie d’Abū’l-Mahāsīn Taghri Bīrdī et son oeuvre,” *Annales Islamologiques* 11, 1972, 167, accessed Sept. 12, 2013, <http://www.ifao.egnet.net/anisl/>.

⁴⁰³ Ibn Taghribirdi, Popper, *History of Egypt*... xvi.

⁴⁰⁴ William Popper, “Sakhawi’s Criticism of Ibn Taghribirdi,” *Studi Orientalistici onore di Giorgio Levi della Vida*, 52, 1956, 381.

Qadi ‘Abd al-Rahmān al-Bulqīnī (d. 823/1420).⁴⁰⁵ Because of his wealth, and connections to the both the military elite and the scholarly elite, Ibn Taghribirdi was exposed to an intellectual environment early in life, and he also participated in military training prohibited to most scholars. He was an experienced horseman, archer, and lance thrower and often participated in military parades. Ibn Taghribirdi was detail-oriented and this was evident in several fields. In astronomy, Ibn Taghribirdi measured the zodiac positions with exactitude; and his casting of a canon for the Sultan Qushqadam in 868/1463 showed a similar attention to the exacting details of gun production.⁴⁰⁶

Although Ibn Taghribirdi never entered the service of the standing army or reserves (*ajnad al-ḥalqa*) where some awlad al-nas then became amirs or sultan’s Mamluks, he moved within the elite Mamluk circles. He attended weekly councils held by the sultan and was friends with Sultan Barsbay’s royal confidential secretary. Ibn Taghribirdi himself notes his close ties to many sultans and amirs and because of his relational connections to members of court and scholars he was consulted on a wide range of issues.⁴⁰⁷ When he was twenty-two, Ibn Taghribirdi traveled to northern Syria under Sultan Barsbay’s command. In 836/1432 he again accompanied the sultan on military campaigns to Edessa and Āmid. He “took part in formulating for the Sultan the verbal offer of peace made by the Turcoman ruler Qārā Yuluk,”⁴⁰⁸ and he sent some of his father’s former chief Mamluks to accompany the entourage.⁴⁰⁹

In 849/1445 Ibn Taghribirdi was charged with escorting the pilgrimage to Mecca.

⁴⁰⁵ Ibid. 149.

⁴⁰⁶ Popper, “Sakhawi’s Criticism..” 384-385.

⁴⁰⁷ Hamza, “Some Aspects of the Economic...” 148.

⁴⁰⁸ Ibn Taghribirdi, Popper, *History of Egypt*...xvii. Qara Yuluk ruled the Aq Qoyunlu region in eastern Turkey and northern Iraq.

⁴⁰⁹ Popper, “Sakhawi’s Criticism of Ibn Taghri Birdi,” 378.

Later in 857/1453 he again acted as the escort and was also nominated to be master (*bāsh*) of “pilgrimage military exercises...but the position was actually given... to the treasurer, Jānibak al-Ashrafī.”⁴¹⁰ This nomination to serve as bash, was with the agreement of four other bash who were all Amirs of Ten. Al-Ashrafī, who was eventually appointed to the position, was an Amir of Forty. Popper notes that Ibn Taghribirdi, although documentation does not state an official appointment, must have been considered equal to the amirs of ten that nominated him.⁴¹¹

In addition to the military arts, Ibn Taghribirdi was interested in music and he studied Hanafī fiqh, but his concentration on history was apparently spurred after hearing al-‘Aynī, lecture at court.⁴¹² Ibn Taghribirdi was an awlad al-nas who successfully straddled the line between the military elite and the scholarly ulama class that included his teacher Ibn Hajar. He was fluent in Arabic and Turkish and his extensive links to Mamluk elite circles and the royal court allowed him to move freely within high-ranking circles. His sister, Fāṭimah, was married to Sultan Faraj and his other sister, ‘Ā’ishah, was married first to the Viceroy of Syria, and then to Sultan Faraj’s son. His oldest sister Bayram, was married to Senior Amir Aqbughā al-Tamrazī (d. 843/1349-40), the Viceroy of Aleppo.⁴¹³ His bilingualism and his close associations with courtly circles gave him an unusual perspective as a historian and he focused many of his narratives on the intrigues and actions of the Mamluk elite. In his lifetime he corrected “errors in the works of Maqrizi, al-Ayni and ibn Hajar Asqalani,”⁴¹⁴ but William Popper notes that

⁴¹⁰ Ibid.

⁴¹¹ Popper, “Sakhawī’s Criticism,” 379.

⁴¹² Irmeli Perho, “Maqrizi and Ibn Taghribirdi as Historians of Contemporary Events,” Hugh Kennedy, (ed.), *The Historiography of Islamic Egypt*, 108-109.

⁴¹³ Hamza, “Aspects of the Economic,” 147-148.

⁴¹⁴ Massoud, “Maqrizi as a Historian,” 80.

these corrections were never vindictive, but related to authors' mistakes regarding Mamluk customs or the Turkish language.⁴¹⁵

An example of Ibn Taghribirdi's commentary on Maqrizi's writing contrasts with Maqrizi's positive portrayal of Ahmad b. Yūsuf, a Zahirī, a prominent Zahiri shaykh and imam who rebelled against the first Mamluk Sultan Barquq. Ibn Taghribird's description of Ahmad b. Yusuf contrasts sharply with Maqrizi's glowing biography of the Zahiri leader. Ibn Taghribirdi's support for the four orthodox schools of law and his satisfaction in the Zahiri leader's poverty immediately before his death are apparent in the following description.

Barquq summoned Ahmad (b. Yusuf) and reproved him in a harsh manner...Afterwards he was imprisoned for some time until he was released in the year 791/1388. From this time until his death on Thursday, the twenty-six Jumada I, he lived in oblivion. Shayk Taqī al-Dīn al-Maqrīzī praises him excessively, for he was a Zahiri himself. Nevertheless, in al-Maqrizi's biographical article some details of his (Ahmad's) oblivion appear; namely, that he was so poor that he lacked his daily bread. Verily, God is unjust toward mankind, but it is typical of these Zahiris to have a loose tongue about the learned imams, the leaders of the orthodox schools. This is the way they are rewarded in this world; in the hereafter, God deals with them.⁴¹⁶

Ibn Taghribirdi reported on events surrounding the Circassian rulers, but did not generally focus on popular discontent during crises. He was quick to note problems with Turkish jurists in general because they were not sufficiently educated in Islamic science and jurisprudence.⁴¹⁷ He criticized officials and institutions of his time including the declining silk spinning industry of Egypt, the poor state of rural agricultural irrigation and

⁴¹⁵ Popper, "Sakhawi's Criticism," 381.

⁴¹⁶ Goldziher, *The Zahiris*, 178-179.

⁴¹⁷ Levanoni, "Who Were the 'Salt of the Earth,'" 76.

the vizierate.⁴¹⁸ Other ulama criticized him for accepting real estate and money from members of the elite to portray them in a positive light in his writing.⁴¹⁹ However, these same ulama, like Sakhawi, note that Ibn Taghribirdi was genial and a good conversationalist, and Sakhawi was happy to be included in social gatherings at Ibn Taghribirdi's beautiful home. Al-Marjī described Ibn Taghribirdi as kind and generous, a man who always maintained a calm persona around his friends and servants.⁴²⁰

His critics were also his rivals so it is difficult to ascertain the validity of criticisms directed towards him. It is unclear how Ibn Taghribirdi acquired his wealth but he did receive a grant of iqta' land revenues from Sultan al-Mu'ayyad Shaykh (r. 815/1412-824/1421) and this became part of his estate.⁴²¹ Apparently following the confiscation of his father's estate, Ibn Taghribirdi was able to reacquire some of the property. Maqrizi notes that the beautiful family palace, Ibn Faḍl Allah, was lost by Amir Taghribirdi, but later regained by his son. Sakhawi mentions Ibn Taghribirdi's connection to the sultan's controller of the sultan's private bureau, Jakam, who later under Sultan Jakmak (after 856/1452) wielded great influence. Following Jakam's death (862/1457-58) Ibn Taghribirdi retained his powerful connections with Jānibak, the viceroy of Jidda who became executive secretary in 865/1461.⁴²²

In 1465 Ibn Taghribirdi drew plans for and then built an elaborate turbah (grave or mausoleum) in the northeast of the city. Hami Hamza noted that the large amounts of money that Ibn Taghribirdi spent on building and then maintaining his turbah indicates

⁴¹⁸ Anne Broadbridge, "Royal Authority, Justice, and Order in Society: The Influence of Ibn Khaldūn on the Writings of al-Maqrīzī and Ibn Taghribirdi," *Mamluk Studies Review*, VII, no. 2, 2003, 241, accessed June 2, 2013, http://Mamluk.uchicago.edu/MSR_VII-2_2003-Broadbridge_pp231-245.pdf.

⁴¹⁹ Two ulama in particular, al-Sakhāwī and al-Jawharī, were critical of his being an awlad al-nas and his connections to the Mamluk elite. Ibid. 148.

⁴²⁰ Ibn Taghribirdi, trans. William Popper, *History of Egypt*, xviii.

⁴²¹ Meri, ed. *Classical Islamic Civilization*, 370.

⁴²² Ibn Taghribirdi, trans. William Popper, *History of Egypt*, xvii-xviii.

that he died a wealthy man.⁴²³ Ibn Taghribirdi's mausoleum included a large library containing his personal collection of manuscripts, and instructions for the upkeep and appointments of personnel. Ibn Taghribirdi might have inherited additional wealth from his other siblings who died before him, in addition to the revenue he received from the iqta' he shared with his brother.⁴²⁴

Ibn Taghribirdi suffered a grave intestinal illness in 872-3/1468 and was bedridden for two years; this illness put an end to his writing. By Ramadan 874/March 1470 he was experiencing intense pain and was quite emaciated, he died two months later.⁴²⁵ Unusual for an *walad al-nas*, he never married and did not have any children, so he divided his revenue equally between his surviving sister, 'Ā'isha, and his niece and the third part was again divided equally between his freed slaves, and his favorite servant, Zayn al-Dīn Muḥammad al-Maghribī, and his brother.⁴²⁶

⁴²³ Hamza, "Aspect of the Economic and..." 139-172. See entire article for detailed descriptions of Ibn Taghribirdi's *turbah* and instructions and assignments for its maintenance.

⁴²⁴ *Ibid.* 149.

⁴²⁵ Ibn Taghribirdi, trans. William Popper, *History of Egypt*...xviii.

⁴²⁶ Again, al-Jawhari criticized Ibn Taghribirdi, claiming he left his entire *turbah* to his valet, Zayn al-Din, in violation of *shari'ah* inheritance rules and at the expense of his family. However, Zayn al-Din actually only received an unimportant job and a small stipend. *Ibid.* 150-151.

CHAPTER 6

THE PRODUCTION AND DISSEMINATION OF INFORMATION: EARLY FIFTEENTH CENTURY PLAGUE EPIDEMICS

For every disease there is medicine to cure it, except for madness, plague, and old age.⁴²⁷

Viewed through their narratives vis-à-vis plague epidemics, Maqrizi, Ibn Taghribirdi and Ibn Hajar reflect the diversity and individuality of the ulama in the later Mamluk period. While often pursuing prestigious appointments within the Mamluk administrative system, each historian produced narratives reflecting his background, interests and ties within society. Despite the membership of all three historians in the dominant Shafī'i School, each scholar included different historic details they believed necessary for the understanding of the impact of the epidemics.

Their historical narratives included descriptions of some of the most devastating epidemics to strike Egypt and Syria in 1419, 1429-1430 and 1437-1438.⁴²⁸ These narratives will be analyzed with regard to descriptive variations and parallels and how their choices reflect the authors' constellation of relations in specific periods of time and their agency. This analysis, allowing a singular focus on significant catastrophic events,

⁴²⁷ Shihāb al-Manṣūrī (d. 1492) trans. Dols, *The Black Death*, 109.

⁴²⁸ All of these authors, except Ibn Taghribirdi during the 1419 epidemic were eyewitnesses to the epidemics and advanced enough in their careers to be producing their work, rather than copying, reworking, or rewriting information from earlier authors. However, borrowing still occurred as is evident in Ibn Taghribirdi's use of Maqrizi on details; Ibn Taghribirdi always begins his quote with, "Maqrizi says..." so there is no confusion over the origination of the material.

uncovers disparities and similarities in the authors' choices to either include or exclude information in their narratives. No judgments are made regarding the possible truth-value of each account and the mortality numbers provided by each author.

The uncertainty of medical history today regarding the Black Death and subsequent plague epidemics raises questions regarding classical accounts of epidemics and mirrors the uncertainty and confusion facing Mamluk society during epidemics. These events, recorded by three ulama, illustrate these authors' views of the elites, other ulama and the 'ammah. Did their agency via their commentary spur any professional or personal repercussions? What details can we glean from the information provided by the three authors for a more comprehensive understanding of this historical period? Do the descriptions reflect the author's relational network and the fluidity of these networks at particular moments in time?

Maqrizi's *Kitāb al-sulūk lī-ma'rifat duwal al-mulūk* (*Threads of Knowledge of the Dynasties of the Kings*) is one of the most famous historical works from the Burji Mamluk period. The *Suluk* was probably written some time upon Maqrizi's return to Cairo from Damascus in 820/1417⁴²⁹ and contains accounts of events in his lifetime including battles, epidemics, famine, drought, the rise and fall of rulers, Mamluk skirmishes, and he offers comments on many of these events. He was in his early fifties when he began writing the *Suluk* and he wrote about the first epidemic several years after it occurred. He was already in the process of writing this epic narrative when he lived through the later two epidemics. His observations and comments regarding the three plague epidemics of the early fifteenth century are very detailed and he often mentions

⁴²⁹ Amalia Levanoni in Hugh Kennedy, *The Historiography of Islamic Egypt*. 96.

the negative affect these events had on the general population and the dhimmi groups. Early volumes of the *Suluk* cover the Bahri period and for this earlier period Maqrizi appears to have used information primarily from Ibn Furat's (d. 807/1405) *Kitāb al-duwal wa-al-mulūk (Book of Dynasties of the Kings)*.⁴³⁰ His colleagues held Maqrizi in high esteem and many of them used his *Suluk* as a resource for their own historical narratives. Some of them, Ibn Taghribirdi for instance, were a bit critical of Maqrizi's open disdain towards Circassian rule in general and Sultan Barquq in particular.⁴³¹ Several times he corrected Maqrizi's mistakes regarding Mamluk customs or plague mortality.

Ibn Hajar's *Inba' al-ghumr bi-abna' al-'umr (Informing the Inexperienced about the Children of [my] Age)* is an annalistic history that covers the years 773/1372-850/1446. The chronological coherence and detailed descriptions found in Maqrizi's *Suluk* and Ibn Taghribird's *Nujum* are not often found in Ibn Hajar's work. However, Ibn Hajar's expertise in hadith studies as opposed to history may have influenced the choices in his narratives. Ibn Hajar's specialization in hadith is evident in his accounts and he produced a collection of hadith dealing solely with the plague, *Badhl al-mā'ūn fī faḍl al-ṭa'ūn (Offering Assistance for the Sake of the Plague)* in this regard.⁴³² Jere Bacharach has found that Ibn Hajar copied or summarized material from both al-'Ayni and Maqrizi, however, in accounts of these three epidemics there are some details unique to Ibn Hajar.

Ibn Taghribirdi's *Nujum al-zāhirah fī mulūk miṣr wa al-qāhirah (The Shining*

⁴³⁰ Amitai, "Maqrizi as a Historian..." 100.

⁴³¹ See Amalia Levanoni, "History in the Service of Faith," in *The Historiography of Islamic Egypt...* ed. Hugh Kennedy, 93-105, where Maqrizi compares Barquq to an ape and accuses him of introducing "homosexuality, bribery and dullness of the markets," during his reign. 101.

⁴³² Dols, *The Black Death in the Middle East*, examines what he calls the three plague principles or precepts as presented by Ibn Hajar in this work.

Stars of the Kings of Egypt and Cairo), as noted by Sami Massoud, reads like a “dynastic history with the events which make up the reign of each individual ruler presented and after his death, obituaries follow...under yearly headings.”⁴³³ This historical work was written expressively for Sultan Jaqmaq’s son, Muhammad, who was Ibn Taghribirdi’s pupil and close friend. The information recorded by Ibn Taghribirdi for the plague of 1419 was probably from al-Ayni or Maqrizi, as Ibn Taghribirdi was born in 1409, making him only ten years old during this epidemic. Of particular interest is Ibn Taghribirdi’s vitriol towards the Christians in his account of this plague. At the age of ten, it is unlikely that Ibn Taghribirdi had personally experienced the Christian arrogance towards Muslims that he describes. Yet his account seems very personal. The *Nujum* was written later in Ibn Taghribirdi’s life so it is possible that his negative perceptions of Christians developed later in life and his attitudes were then projected back to this earlier account of the 1419 plague epidemic.

An exploration of these authors’ varied accounts of the same tragic events can help to determine the authors’ use of exclusion and inclusion of information. An understanding of the epidemics that Muslims of the mid-fifteenth century experienced and the way in which they interpreted them and the general population’s reaction will be explored. The details of each biography (Maqrizi, Ibn Hajar, and Taghribirdi) will be reflected in each author’s account of the plague epidemics. The uncertainty over effective medical treatments for plague and the attempts to identify those culprits behaving in a sinful manner during the spread of the epidemic, according to the ulama and the Mamluk elite, will become evident from the narratives. The parallels between the

⁴³³ Massoud, *An Analysis of the Annalistic...* 87-88.

confusion and uncertainty during fifteenth century plague epidemics, and the ambiguities of modern medical research on the Black Death, despite extensive investigation, will be explored.

1419

Sultan al-Mu'ayyad Shaykh (r. 814/1412-825/1422) ruled the Mamluk Empire during the first great plague epidemic of the fifteenth century in Mamluk Egypt and Syria.⁴³⁴ Throughout his reign he led several successful campaigns into northern Syria and Anatolia. However, rebellious Bedouin tribes and constant currency devaluations afflicted Mu'ayyad's rule and made life increasingly difficult for the general population. After fairly mild attitudes towards Jews and Christians under Sultans Barquq and Faraj, Sultan Mu'ayyad's rule was marked by the imposition of strict limitations on groups, making their lives more difficult. Although Maqrizi does not appear to have been close to the sultan, he does praise him for keeping his promise to convert a prison into a large madrasa at the cost of forty thousand dinars. Apparently Mu'ayyad's predecessor, Sultan Faraj had imprisoned Mu'ayyad as a troublemaker and Mu'ayyad vowed if he ever escaped he would build a "saintly place for the education of scholars."⁴³⁵ Despite this praise, Maqrizi then does an about face and offers harsh criticism with regard to

⁴³⁴ As previously mentioned in footnote 1, only those epidemics described by the term *ta'un* are analyzed here. In the early fifteenth century before the 1419 plague epidemic several general epidemics occurred and a few plague epidemics. In March 1400 there was a "spreading sickness with a fever and cold," and in December 1403 there was a fever, cold and cough "from which no one escaped, but no one died." In May 1406 there was a plague epidemic in Upper Egypt in which 10,000 died in the Asyut area; in February 1407 there was a plague epidemic with death "that came quickly" and daily mortality reached 1,500. In March 1411 and June 1419 plague struck Damascus and the surrounding areas, and in April 1417 plague struck Cairo, Damietta and Alexandria. All of these epidemics are briefly described by Maqrizi and were not as severe as the three epidemics reviewed in this paper. Maqrizi, *al-Suluk* 6, 19-20, 103, 161, 181-183, 232, 279, 290, 387, 431.

⁴³⁵ Archnet, Jami' al-Sultan al-Mu'ayyad Shaykh, accessed Oct. 10, 2013, http://archnet.org/library/sites/one-site.jsp?site_id=3451.

Mu'ayyad's time as viceroy and then sultan.

He was miserly and grasping, stinting even in what he ate; stubborn, cross, envious, with an evil eye, (he) paraded various reprehensible deeds. Vituperative, dissolute, intimidating, he was mindful of his companions without indulging them. . . . He was the biggest reason for the ruin of Egypt and Syria, thanks to the evils and strife he stirred up while viceroy of Tripoli and Damascus and then by corrupt deeds of injustice and plunder while he was ruler, empowering his followers over the people, forcing them into submissiveness, taking what they possessed without impediment of reason or interdiction of religion.⁴³⁶

Maqrizi's interest in history and his disdain for the Mamluk sultan is evident in his account of the 1419 epidemic. During this epidemic Maqrizi was at a point in his life where he had withdrawn from public life, possibly to focus on his writing and to travel to Mecca. Earlier, Sultan Faraj had offered Maqrizi several professional appointments, all of which he refused. There is no indication that Sultan Mu'ayyad, who Maqrizi viewed with both contempt and respect, offered him any appointments. The sultan had imprisoned and then killed one of Maqrizi's last remaining friends within the court circles, and this action may have contributed to the scholar's distancing himself from the Mamluk elite.

Maqrizi often begins his narratives of catastrophic epidemics with mortality numbers as listed in the diwan; the author appears to use general mortality to demonstrate the extent of the devastation and the toll on the general population.⁴³⁷ He begins his account of the plague in Safar 822/February 1419 with a description of death spreading to the east and west and across the entire coastal region. The plague epidemic began in Cairo and Egypt when the "sun was in Aries" and the daily death toll initially reached

⁴³⁶ Little, "A Comparison of al-Maqrizi and..." 213-214.

⁴³⁷ Ibn Taghribirdi often disagrees with Maqrizi's mortality numbers, but offers justification for his reasoning.

twenty to thirty a day.⁴³⁸ He then details the mortality in several Egyptian towns.

(In Rabi' I/March) the number of dead announced by the Diwan in the city of Balbīs (northeast of Cairo) was 1,000 people, and in Bardīn (a village in the east) 500 people (died). And in Dīrūt (north of Asyut) in the west, 3,000 people and as for the rest of the villages, it was a great number (who died).⁴³⁹

Maqrizi includes details of an earthquake that took place, also in Safar/February, at the beginning of this plague epidemic that other two ulama do not mention.⁴⁴⁰

Maqrizi's description of this earthquake is intertwined with other events during this epidemic and his lone description could possibly reflect his view that the two catastrophes were related. In the fifteenth century, earthquakes and epidemics were considered punishments from an angry God, and attempts were often made to identify possible culprits. These twin catastrophes entwined in Maqrizi's account reinforce his assertions that the 'ammah suffered many trials during Mamluk rule.

And in this month (safir): it is agreed that in the afternoon of Tuesday the seventeenth, an earthquake occurred that continued for three days and three nights. No one knows. The walls of the city fell, and everyone left their homes. And no dwelling remained in (the city) except those that had fallen or been destroyed. And a piece the size of half the pyramid of Egypt broke off the mountain (al-jabal)⁴⁴¹ and it fell to the ground. And several springs erupted in the Blue River Valley and several rivers overflowed. And the earthquake came from the west to the east, and it had the sound of horses galloping. And then the earthquake spread after three days for a period of forty days, returning once or twice or three times or four, until the people left for the desert, and this persisted a year.⁴⁴²

In a search for those involved in sinful behavior, in the eyes of the ulama, possible culprits include prostitutes, Jews, Christians, tavern owners and hashish dealers. Maqrizi

⁴³⁸ Maqrizi, *al-Suluk*, 6, 1997, 491.

⁴³⁹ Ibid. 495.

⁴⁴⁰ Ibn Taghribirdi does not mention this earthquake, and Ibn Hajar mentions a great earthquake, but he says it occurred in Constantinople.

⁴⁴¹ This could be a piece of the wall of the citadel, qal'at al-jabal "the citadel of the mountain." For a description of this wall see Popper, *Egypt and Syria...Systematic Notes*, 19.

⁴⁴² Maqrizi, *al-Suluk*, 6, 492.

describes the actions of the muhtasib, Sadr al-Din, who emptied and broke clay jars filled with wine “in the places of corruption.”⁴⁴³ The muhtasib prevented the prostitutes from standing on the street corners and he attacked the hashish dealers. Maqrizi describes the muhtasib’s actions against the Jews and the Christians in these places. They were compelled to narrow their sleeves, wear smaller turbans, and wear bells around their necks so that when they entered the bathhouses other people (Muslims) could hear them. Jewish women were required to wear yellow clothing and Christian women had to wear blue clothing.

Maqrizi notes that some of these things were carried out and others were not and he does mention twice in one paragraph that “there was a state of unease” and “their (the Jews and Christians) anxiety increased because of the situation.”⁴⁴⁴ He is the only author that mentions the unease and distress that the sultan’s proclamations caused the non-Muslims reflecting his personal connection to the ‘ammah, both Muslim and non-Muslim. The details he included reflects Maqrizi’s sense of justice and fairness, and his intent that the plight of the ‘ammah be included in his narratives.

Maqrizi often focuses on the hadith and he maintains in his narratives that all Muslims should attempt to emulate the first generation Muslims. There are several hadiths advocating the protection of Christian and Jewish communities, and Maqrizi’s attention to their plight is unusual for ulama at this time. His attitudes towards the ‘ammah and each sultan are not static, but fluctuate with his life circumstances. Maqrizi’s

⁴⁴³ The spilling of wine most often occurred in the Christian and Jewish quarters. Under Sultan Mu’ayyad the restrictions against Jews and Christians intensified. The two previous ruling sultans, Barquq and his son Faraj, were more lenient towards non-Muslims and harassment and restrictions were limited. See *Encyclopedia Judaica*, accessed October 10, 2013, http://www.geschichteinchronologie.ch/afrika/aegypten/EncJud_juden-in-aegypten03-1260-1517-Mamluken-ENGL.html.

⁴⁴⁴ Maqrizi, *al-Suluk*, 6, 495.

empathy towards non-Muslim communities at this point in his life, when he is not intimately linked to the sultan and his court, contradicts his earlier criticism of Sultan Barquq for “allowing the ‘ammah to rise up.” As Maqrizi distanced himself from the Mamluk elite he shows concern with the ‘ammah, including the dhimmi, and the difficulties in their lives. This empathy is reflected in Maqrizi’s attention to the situation of the dhimmi and his need at this specific point in his life, to record the details of the increasing trials these groups faced.

In the next month, Jumada I/March the muhtasib announced further restrictions towards the Christians and Jews. In Cairo they were not allowed to ride horses or mules in the streets; they had to walk because “they were untrustworthy.” Non-Muslims could only ride donkeys outside of Cairo, and all the previous restrictions announced earlier were now to be enforced. “And they were uneasy with this. They (the non-Muslims) made every effort to thwart them (the proclamations), but they were unsuccessful.” Maqrizi notes that some of the dhimmi were attacked in the bathhouses and a group was beaten for disobeying the sultan’s proclamation; many non-Muslims refused to enter the bathhouses and their women did not appear in the streets.⁴⁴⁵ There is no overt indication of approval or disapproval of the harassment of non-Muslims, but the fact that Maqrizi reports these events in detail is critical. He emphasizes the increased anxieties in an already tense population, demonstrating that he has little sympathy for the sultan and those enforcing his proclamations.

On Thursday, the eighth of Rabi’ II/April, with no abatement of the epidemic, the muhtasib called for all the people to begin a three-day fast that would end on the

⁴⁴⁵ Ibid. 501.

following Thursday, the fifteenth.⁴⁴⁶ Maqrizi writes that many people were fasting and many shopkeepers did not sell their wares, as was typical during Ramadan. On the fifteenth the “ulama and the faqih and the shaykhs and the Sufis and the common people” all went out into the desert and the minister, al-Şāhib Badr al-Dīn Naşr Allah and the Amir al-Istadār (major domo) went and set up the appropriate cooking apparatus.

They brought cattle and sheep and they stayed overnight to prepare food and bread. Then the sultan rode in and said the Morning Prayer, coming down from the citadel of the mountain. He wore the robes of a sufi, and his shoulders were covered like a sufi, and he wore a very small turban...and he was humble and contrite and he wore simple cloth, no gold or silk, and he received the crowds of people.⁴⁴⁷

Maqrizi describes the procession of the ‘Ayan, led by the Chief Qadi, Jilāl al-Dīn al-Balqīnī; some were riding horses and donkeys and some were walking. They arrived in the desert where the sultan sat upon his horse and all the people surrounded him, the qadis, the khalifas, and the scholars. The sultan extended his hands to the sky, crying and calling to Allah and he then rode to the cemetery where he “slaughtered 150 beefy rams...ten fat cows and two buffalo cows and he cried and the tears dripped down his beard.” The minister and other ‘ayan took charge of distributing the meat and dispersing it to the mosques and the sufi religious schools (*zāwīyahs*) and the poor and “he divided the clean bread that day into 28,000 loaves and the poor were given it from the hand of the wazir.” Meat and bread was also distributed among the prisons, and then in the heat of the day the people departed.⁴⁴⁸

Maqrizi draws attention to the subdued appearance and attire of Sultan Mu’ayyad;

⁴⁴⁶ The fast is a replica of the supplication for rain (*istisqā’*) that always began with a three-day fast.

⁴⁴⁷ Ibid. 496.

⁴⁴⁸ Ibid. It was a common practice among the Mamluk sultans to give alms to the poor when there was an epidemic, or when the sultan himself became ill. This practice goes back to Sultan Baybars, and Sultans Barquq and Faraj also practiced this “treating illness with alms.” See Adam Sabra, *Poverty and Charity in Classical Islam* (Cambridge: Cambridge University, 2000), 56.

in contrast to his usual attire that included gold and silk, and often a large black turban embroidered in gold, the sultan appears to be emulating a sufi. Maqrizi is making a subtle point that he disapproves of the sultan's ordinary, every day attire and behavior that is the opposite of the sultan's desert processional attire and appearance of humility. Maqrizi reinforces his disapproval of Sultan Mu'yyad's and the peoples' actions in his comparison of the activities and attitudes he had just witnessed and those of the Muslim ancestors.

It was a memorable day. None had witnessed anything like it, except that it differed from what occurred with our ancestors according to Imam Ahmad, from Shahr Bin Hūshab (d. 100/719), in the Hadith of the Plague of 'Amwas. Abū 'Ubayda Bin al-Jurah (d. 18/639) made a speech and he said, "Oh people, indeed this ache (the plague) is a blessing from your Lord, and a call from your Prophet, and the death of the virtuous of your tribe," and then Abu Ubayda asked God to divide the fortunate among us, and he was struck by the plague and died. And Mu'ādh Bin Jabal was appointed successor, and he gave a speech and said, "Oh people, indeed this ache is a blessing from your Lord and an invitation from your Prophet and the death of the righteous ones before you." Then Mu'adh asked Allah to share his covenant (with him) and Mu'adh's son 'Abd al-Raḥmān was struck by the plague and died. And then he (Mu'adh) called to the Prophet himself and he was struck by the plague in the palm of his hand. His gaze turned to the sky, then he raised his hand and he died. And 'Amrū Bin Al'āṣ succeeded him, and this is mentioned in the hadith. God cherishes the actions of the companions, and the people of our time may try to reverse the issue and ask Allah to lift it (the plague) from them.⁴⁴⁹

Maqrizi's criticism is directed at the sultan, the 'ayan and the ulama leading the processions into the desert. His distance from all four schools can be found in his statement that the people of his time, which includes all the people, can attempt to reverse an accepted tradition, but they will fail. The order for the fasting and processions ultimately came from the sultan who consulted with the ulama, were given to the muhtasib, and then passed along to the 'ammah. The ulama agreeing to such an

⁴⁴⁹ Ibid. 497.

untraditional ritual vis-à-vis plague obviously annoys Maqrizi, with his strongly held belief in the infallibility of the early Muslims' actions and the traditions they established. Maqrizi's inclusion of the hadith of the Plague of 'Amwas from the *History of Tabari* (224/839-319/932) is interesting in its underlying criticism. He wants to remind his readers and reinforce that their ancestors did not practice fasting, supplication or desert processions during plague epidemics. The ancestors, who should be emulated, accepted plague as God's Will and a blessing. The Mamluks, through morally unacceptable negotiations and rituals, are attempting to controvert the Will of God in Maqrizi's narrative.

In his account of the 1419 plague epidemic, Maqrizi excludes an important detail regarding this plague that the other two ulamas, Ibn Hajar and Ibn Taghribirdi, incorporate. They reveal that following the fasting and processions into the desert, the plague disappeared. Maqrizi excludes this information, which leaves the reader with the impression that the Mamluk rituals failed to have any effect on ending the epidemic. The inclusion of information about the plague epidemic ending after these untraditional rituals would appear to invalidate Maqrizi's view of these events, and contradict his moralistic attitude in which the measure of a good Muslim is his emulation of the Prophet and his companions.

Maqrizi often uses specific events to demonstrate the tragedy of the plague and how it affected the people. He describes a man who wanted to have his four sons circumcised together, "before death came for them." The father prepared sugar water for the guests as was customary and then each boy was circumcised, one after the other. All four boys died immediately following the circumcision and the father accused the man

who had performed the operation of poisoning them. The man protested his innocence and the joyous occasion “was turned upside down.” As they were arguing, someone looked in the clay jar that held the sugar water and there was a dead snake inside; according to Maqrizi, this was the cause of the boys’ deaths.⁴⁵⁰ Maqrizi stresses the tensions and the negative effects of the plague on society during common celebrations in which the people were relaxing and socializing.

The total number of dead reported between Safar/April and Rab’ al-Akhar/May in Cairo reached 7,652.⁴⁵¹ Maqrizi notes the number might have been as high as 10 thousand and he also mentions that most of the cattle in the east and west had also died. He does not mention symptoms for the cattle, however, he inserts the information on the cattle mortality immediately after detailing human mortality from the plague. He describes the monopolization of sugar sales by the major domo, and the closing of shops and the people suffering and being forced to economize. People were unable to buy medicine for the sick, and the price increases of grain, especially wheat and barley, created further hardships for the people. “The people were tense and the Nile had fallen prematurely and so crop prices increased. And the sultan is occupied with the sickness.”⁴⁵²

It is interesting that almost one paragraph after providing the mortality rates for May, Maqrizi inserts an account of the ailing sultan’s attempt to select a chief physician. Reflecting the ineffectiveness of medicine in this period, Maqrizi maintains that physicians cannot really heal anyone without a “blessed hand;” only God can heal the sick. Maqrizi describes the sultan gathering several physicians at the palace so that he

⁴⁵⁰ Ibid.

⁴⁵¹ Maqrizi divides this number as follows: 1,065 men, 669 women, 3,069 young, 544 slaves and 1,369 slave girls and sixty-nine Christians, and thirty-two Jews and these numbers actually total 6,817. Maqrizi notes that the total does not include those that died in the hospital (*māristān*). Ibid. 499.

⁴⁵² Ibid. 507.

can select a head doctor. Abu Bakr Muhammad (b. 757/1356), a man born in Baghdad and living in Damascus, was the most qualified. He had “extensive knowledge of medicine and also astronomy,” however, Abu Bakr was unable to address the sultan’s current ailment and so “his hand was not blessed, he treated only patients that died from their illness.” The sultan sent everyone home and did not choose anyone as chief doctor. The confusion and uncertainty inherent in the classical medical practices are reflected in this account. Before the development of broad-spectrum antibiotics, the mortality rate among the sick was high. Both the elite and general population were afflicted with the same diseases and faced the same chance of survival.

How does Ibn Hajar’s account of the 1419 plague differ or concur with Maqrizi’s and what does his inclusion or exclusion of details say about his life when he was forty-seven years old? Sultan Mu’ayyad had appointed Ibn Hajar as mufti of Dar al-Adl to judge the case of accused embezzler al-Harawi, who was the Chief Shafi’i Judge at the time. With his display of knowledge and his relentlessness as an interrogator, Ibn Hajar demonstrated his vast knowledge and impressed the sultan. Ibn Hajar was also appointed as Deputy Qadi of Shafi’i Fiqh under Chief Qadi al-Bulqini in 1419. In the same year, Ibn Hajar was appointed instructor in Shafi’i fiqh at the Mu’ayyadi Mosque⁴⁵³ and he was moving forward professionally with appointments continuing under Sultan Barsbay in 1422. Does Ibn Hajar’s account of the 1419 epidemic hint at his secure position, both professionally and financially? At this point he had been married for twenty-three years and fully incorporated into his wealthy in-laws’ network. Does he have an interest in the common people or the dhimi and their plight, like Maqrizi? Is he critical of the sultan’s

⁴⁵³ Ibn Hajar taught forty students and received 150 silver halves monthly in this position and Sultan al-Mu’ayyad attended his opening teaching session. Sabri Khalid Kawash, “Ibn Hajar Asqalani,” 125-126.

actions and processions into the desert? Does he, like Maqrizi, see a moral issue here as compared to the protocol set by the early Muslims during epidemics?

In Safar/February, the plague spread in the east and west and it began in Cairo and Egypt, and then it grew in Rabi' I (March) and it occurred mostly in the children. And the epidemic spread in the lands of Ifranj (Franks) and it flourished in the canals of Ismailiyya. The money collected from iqta's and agriculture in the lands of Giza at this time was only 5,000 dinars. On the nineteenth of Rabi' I there was a solar eclipse and the people met at the al-Azhar Mosque to pray and they used the Eclipse Prayer as is described with elaborate bowing and standing and no sooner had they finished that when the sun appeared, praise be to God.⁴⁵⁴

Ibn Hajar is not interested in detailing mortality rates like Maqrizi, however, he is interested in the disproportionate number of children that died and the failure to collect sufficient money from agriculture. Maqrizi, despite his interest in astrology, does not mention the solar eclipse. Ibn Hajar describes the proclamations directed towards the dhimmi population, but in much less detail, than Maqrizi's.

In Rabi' I/March the muhtasib and others, on orders of the sultan, rode into places of corruption in Cairo – and they poured out a great deal of wine. And the muhtasib prevented women from wailing for the dead in the markets and reprimanded groups of them. The Jews and Christians were forced to tighten their sleeves and minimize their turbans.⁴⁵⁵

The lack of interest in the plight of the dhimmi is palpable in Ibn Hajar's account. Within his network of wealthy merchants, and high level ulama, Ibn Hajar would not have had direct connections with the 'ammah. This scholar's disinterest in the plight of the general population contrasts with Maqrizi's account detailing the specific hardships faced by the dhimmi and the repeated descriptions of tensions and anxiety among the people. Maqrizi's deeper connection and empathy with the 'ammah is almost palpable in his account.

Ibn Hajar describes in detail similar to Maqrizi's account the three-day fast

⁴⁵⁴ Ibn Hajar, *Inba'*...1967, 3, 347.

⁴⁵⁵ *Ibid.* 357.

beginning on Sunday and the procession into the desert on Thursday.

On Thursday the eighth of Rab'i II the plague spread and the sudden death increased and the people were alarmed. The sultan ordered the muhtasib to call for a fast of three days the first day would be Sunday the eleventh. They fasted three days and they then departed on Thursday the middle of Rabi' II and went into the desert – and the faqihs and the Sheikhs and the 'Ulama and the Qadis and people. The minister directed his companions to the grounds of Zahir Barquq and they erected the Sultan's tents and spent the night preparing food and bread.

The Sultan rode in after the Morning Prayer and he stopped at the Citadel wearing a Sufi robe upon his shoulders and a Sufi apron and a very small turban and he was humble. His horse had a simple unadorned cloth. The people met and all attended walking, and the sultan stopped among them and invoked God. And the Sultan sat on his horse and began to move forward and the qadis and the khalifas and the sheikhs were around him, and he split them into (so many) groups it was difficult to count. And the sultan spread out his hands and called (to God) and wept and the people witnessed this and it lasted a long time.

Then he faced the direction of the turbah (mausoleum) and he rested and he ate and he sacrificed by his own hand 150 fat rams and ten cows and buffalos and camels. And he cried, and he called out and he went down in the presence of the people and he left the blood sacrifice laying as they were and he rode to the citadel, and the minister made the rounds of his associates and then they scattered to the mosques, khawaniq and the zawiyahs. And they did a great thing and they divided the sacrifices among the poor, and split among them 30 thousand flat loaves of bread and some of the loaves and pots of food were sent to the prison. The people continued to be submissive and show their humility until the heat of day and they departed. It was a day to remember that had not been witnessed before except in praying for rain. And this they (people) believed had revealed their hardship and God was happy and as a result he lifted the epidemic.⁴⁵⁶

Ibn Hajar's account mirrors Maqrizi's account in many details, however, with his expertise in hadith studies, Ibn Hajar does not mention how the desert processions and sacrifices contradict the pious ancestors' actions as established during earlier plague

⁴⁵⁶ Ibid. 356-357.

epidemics, Ibn Hajar writes that the people believed that God was happy and then lifted the epidemic but the author appears ambivalent. Unlike Maqrizi, there is no indication of approval or disapproval of the people's actions, he appears to be observing and recording events.

While Maqrizi broke the mortality numbers down by gender, age, etc... Ibn Hajar's mortality numbers are not as detailed as Maqrizi's figures, demonstrating the difficulty of actually determining mortality during fifteenth century epidemics. "The number of those (dead) recorded in the diwan from Safar to the end of Rabi' II in terms of children was 4,000. And in terms of the other people who were mourned it was 4,000, and possibly 1,200 more (not children) listed in the diwan."⁴⁵⁷ The difficulties in determining total mortality in this period are reflected in Ibn Hajar's rather vague description and perhaps his lack of interest in such details.

Ibn Hajar also includes the story of the four boys being circumcised except it is the mother, and not the father, who requests the circumcision before the boys might die.

In Rabi' II it is agreed that in Egypt a strange thing occurred. A man had four children and since death was taking the infants, the mother asked that they be circumcised to make them happy before they died. And the people gathered as is tradition and many attended, and each child was circumcised and then given thawed syrup as was traditional. All four died after the circumcision, and their father accused the man (in charge of the circumcision) of using a poisoned blade and the man proclaimed his innocence and their joy turned to consolation. In the water pot that held the melted syrup a great snake, split open, lay dead. And this was the reason for the destruction (*halāk*) of the children; God commands all.

Ibn Hajar's account provides the same sense that Maqrizi's does; normally happy occasions are being turned upside down by the tense atmosphere of death surrounding the people. The increased tensions lead to hasty actions such as the father accusing the man

⁴⁵⁷ Ibid.

who performed the circumcision of murder, when in fact it is a dead snake, symbolically powerful, ambivalent, vicious and dangerous, that has caused the children's death.⁴⁵⁸ In this description Ibn Hajar notes that God commands all, although the snake is the direct cause of death, it is ultimately God who determines the time and place of each person's end. The term *halak* can mean death or destruction, a powerful word that Ibn Hajar employs to describe the boys' deaths. Maqrizi used the much simpler and less powerful term to describe the death (*maūt*) of the boys.

Ibn Hajar's account of events during this epidemic is much more concise than Maqrizi's and does not encompass the same level of detail. The forty-seven year old scholar appears less concerned than Maqrizi with the events that are unfolding. In his description of the sultan's proclamations against the Jews and Christians, Ibn Hajar's account is very matter-of-fact. There are no comments on anxiety or tensions within these communities. His only comment on anxiety among the people is when he begins his description of the fasting and the desert procession. He offers no specifics. During this time Ibn Hajar was living a very successful professional and personal life. His constellation of relations included wealthy family members, other ulama via his teaching and appointments, and the Mamluk court. Ibn Hajar probably did not interact with the general population, including the dhimmi groups and his rather antiseptic description of events, compared to Maqrizi's, reflects his interests and concerns at this point in his life.

Ibn Taghribirdi was too young to have written his account of the 1419 plague first hand; but he provides a different perspective on some events, particularly the restrictions imposed on the dhimmi. Some of the information he cites directly from Maqrizi,

⁴⁵⁸ Jürgen Wasim Frembgen, "The Scorpion in Muslim Folklore," *Asian Folklore Studies*, 63, no. 1, 2004, 116, accessed November 16, 2013, <http://www.jstor.org/stable/30030314>.

primarily on the mortality rates, but a great deal of his account is from unknown sources. His account of the fasting and the sacrifices in the desert matches Maqrizi's, however, like Ibn Hajar he notes, "from that day the plague began to gradually decrease." There is no criticism of the rituals that the sultan and the 'ayan performed in the desert, and Ibn Taghribirdi's inclusion of information on the plague lessening gives the reader a sense that the Mamluk rituals were successful in lifting the epidemic.

It is important to recall that Ibn Taghribirdi was closely linked with the court circles of the sultan, and with Sultan Mu'ayyad himself. His approval of Sultan al-Mu'ayyad's actions reflects his close relationships and social links within the Mamluk court circles, and his lack of interest and network links with the dhimmi population at this point in his life. A story of an apparently spoiled five-year old Ibn Taghribirdi throwing a temper tantrum in front of the sultan and being rewarded is enlightening and demonstrates the closeness of their relationship.

Brought before Sultan (Mu'ayyad) al-Shaykh he asked him for a "khubz," (literally a piece of bread, but meaning also "an estate" or income from the military bureau); the sultan laughingly had a piece of bread brought to him, which the boy threw on the ground, stating he meant a "khubz" with peasants who would bring him sheep and geese and fowl; the Sultan then gave him 300 dinars and promised him what he demanded. At some period in the author's life this promise was kept, probably in his shared iqta' revenue from Qalīb Abyār.⁴⁵⁹

Regarding the sultan's proclamations issued for the Christians and Jews, Ibn Taghribirdi provides fairly harsh comments that indicate a complete lack of empathy with the plight of the dhimmi, particularly the Christians. He describes the banishment of the Christians from the Mamluk administration (not in the other two accounts) and he writes that the muhtasib had some words for the sultan because the Christians had not followed

⁴⁵⁹ William Popper, "Sakhawi's Criticism," 380.

the previous proclamations with regard to their behavior and clothing. It is worth detailing his account of this event; although he was very young during this epidemic and only recorded events much later in his life, Ibn Taghribirdi's account and his bitterness towards the Christians appears very personal.

All (dhimmi) refrained from riding donkeys, so that the populace when they saw a Christian on a donkey beat him and took away the donkey and what he wore; so they rode donkeys only outside Cairo. The Christians used their utmost endeavors to return to the administration, and promised large sums of money therefor. The Coptic scribes aided them, but the Sultan paid no regard to their words and refused deviation from his decree.

I say: Perhaps God...will forgive for this action all of (Sultan) al-Malik al-Mu'ayyad's sins, for it was one of the greatest measures for the supremacy of Islam, while the administration of these Christians in the bureaus of Egypt is one of the greatest evils from which results in the magnification of Christianity. For most Muslims of necessity have recourse to the doors of officials for conducting their affairs, and whenever their affairs were concerned with [such and such a bureau] head they were forced to be humble and conciliatory toward the one in whose hands the bureau was, be he Christian or Jew or Samaritan; and it has been said in proverbs: "One who needs something is blind; he desires naught but its fulfillment."

So some (Muslim) would remain standing for many hours before such a Christian while the Christian remained sitting, until their business was concluded after they had prayed for him and been deferential towards him to a degree which they did not use in dealing with leading scholars. Some also would kiss the hem of the Christian's garment, and walk at his stirrup to his home until they finished their business.

As far as the peasants of the villages were concerned, the Christian official often would beat and mistreat one of them and put him in chains, asserting that thereby he was securing money belonging to his master; whereas this was not so, but he was seeking only to exercise authority over Muslims, nothing else. Now this is exactly what happens to a (Muslim) captive in Frankish lands, nothing more excepting that his slavery is a result of conquest.

When (Sultan) al-Malik al-Mu'ayyad restrained these Christians from holding office, all this ceased; so that virtually he conquered Egypt a second time, exalted the authority of Islam and debased that of the infidels-- and in God's sight nothing is more meritorious than that.⁴⁶⁰

⁴⁶⁰ Ibn Taghribirdi, trans. William Popper, *The History of Egypt*...67-68. The author continues to write of the arrogance of the Christians in positions of power within the Mamluk administration. In 868/1463 he

Ibn Taghribirdi maintains, “they (the Christians) were arrogant and constantly acting superior to Muslims.”⁴⁶¹ There is a sense of personal experience in Ibn Taghribirdi’s account, as if he himself had experienced this condescending behavior from Christians in the Mamluk administration. Later in his life, Ibn Taghribirdi probably had interactions with Christians in the administration, however, there are no accounts of his being unfairly treated or having contentious relations with Christians. His obvious dislike of the Christians stems from an unknown source. Ibn Taghribirdi notes that some Christians attempted to circumvent the sultan’s restrictions by professing to be Muslim and Ibn Taghribirdi advises the sultan to keep all recently converted Muslims out of the administration because they could not be trusted. Many Christians, in Ibn Taghribirdi’s opinion, would simply pretend to accept Islam for personal gain.

When Ibn Taghribirdi writes that people were “deferential towards him (a Christian) to a degree which they did not use in dealing with leading scholars,” one discerns his dismay. Possibly others have not treated him with the respect he feels he deserves as an ‘alim and this could specifically be related to rival historian Sakhawi’s criticism of Ibn Taghribirdi. Sakhawi is known for his sweeping criticisms of many ulama, including Maqrizi, but he seems particularly vehement towards Ibn Taghribirdi. He accuses Ibn Taghribirdi of sloppiness in recording dates and events and also of writing false and flattering accounts of those in the Mamluk circles due to his close relationship with several sultans and their courts. Sakhawi also maintains that Ibn

comments on new prohibitions regarding Christians in the Mamluk administration: “how fine it would be if it continued; if these recurrent proclamations of prohibitions ceased, and the Copts were not getting into state offices any more.... So it went on for about a year, then everything was again as it had been before (Christians were once again allowed to work in the state offices).” M. Perimann, “Notes on Anti-Christian Propaganda in the Mamluk Empire,” *Bulletin of the School of Oriental and African Studies*, University of London 10, no. 4, 1942, 861, accessed February 21, 2014, <http://www.jstor.org/stable/609129>.

⁴⁶¹Ibid. 64.

Taghribirdi corrected other scholar's narratives out of spite or bias, but Sakhawi does not offer evidence of this. Ibn Taghribirdi, well-schooled in the scholarly disciplines of Arabic and Islamic studies, also excelled in disciplines considered Turkish, horsemanship, javelin throwing and hunting. This dual expertise appears particularly irksome to Sakhawi.

Ibn Taghribirdi obviously feels very secure in his social position within his networks. He demonstrates this by freely criticizing Sultan Mu'ayyad; his comment that the sultan's proclamations against the Christians might negate all of his other sins implies that the sultan was sinful. His advocacy that nothing is more meritorious than the sultan who "exalted the authority of Islam and debased that of the infidels" is another indication of his vitriol towards the Christians. Sultan Mu'ayyad had been dead for almost twenty years at the time Ibn Taghribirdi was writing the *Nujum*; the author had no fear of reprisals from Sultan Mu'ayyad. However, there was always the possibility of other sultans' distancing themselves from him due to his criticisms of previous sultans. Ibn Taghribirdi noted that after Maqrizi's initial condemning accounts of Sultan Barquq, successive sultans gradually distanced themselves from the scholar. Ibn Taghribirdi was obviously aware of possible repercussions stemming from excessive criticism of the Mamluk elite.

1429-1430

During the next two plague epidemics under review (1429-30 and 1437-38), Sultan Barsbay had taken power and instituted new monopolies, particularly on spices and sugar, that allowed him to consolidate his resources and his power. The amirs were excluded from this revenue flow, and with the increased funds the sultan accelerated his

purchase of new Mamluks. The amirs lacked Mamluks and the sultan's new recruits were Circassian, young, lacked sufficient training and discipline, and could not be integrated into the system quickly enough. Often described as unruly and a threat to the people, these young Mamluks often roamed the streets of Cairo harassing and threatening the people. These new recruits, trained for as little as twelve months, and mostly Circassian like Sultan Barsbay, were an untrained group rather than the polished military unit formed with several years of intense Mamluk training. They had little understanding of Mamluk politics; they were eventually integrated into the Mamluk political system, but the process was extremely slow.⁴⁶²

Maqrizi had withdrawn to focus on his writing, or perhaps as suggested by Ibn Taghribirdi, his earlier constant criticisms of Sultan Barquq spurred subsequent sultans to keep him at arms length and not offer further appointments. His harsh criticism of Sultan al-Mu'ayyad could also have played a role in his isolation from the elite circles because he was writing his narrative while Sultan Barsbay was still alive. During the plague of 1429-1430, Sultan Barsbay had removed both Maqrizi and his rival al-Ayni as qadis due to their incessant arguing over the *Sahih al-Bukharī*.

Maqrizi begins his account of the plague that began in Rabi' II/December 833/1429 with a note that it was an odd season for the plague, plague epidemics usually

⁴⁶² Carl F. Petry, ed. *The Cambridge History of Egypt*, 300-301. Karl Stowasser notes that towards the end of the fourteenth century, with Tamarlane's invasions in the east, the supply of slaves began to dry up. The Mamluk sultans began filling positions with adult Mamluks from other areas, "ex-sailors, bakery assistants, and water carriers, who were neither capable or willing to fit into this strict regime. Rules had to be relaxed, the standards of training lowered, and by the time of the second reign of Sultan Faraj (1405-1412), the royal Mamluks, once the elite, had become an impoverished, despicable, ignorant rabble..." "Manners and Customs at the Mamluk Court," *Muqarnas* 2, (1984), accessed February 20, 2014, <http://www.jstor.org/stable/1523052>.

occurred during the spring. This epidemic began in the coastal areas; more than 5,000 died in al-Mahla and many more in Daminhur and Nahraria (footnotes says it may be Naharia). This plague was most likely a continuation of an epidemic that started the previous June in Gaza, Jerusalem and Damascus and continued until December 1429, when it then spread to Egypt. Apparently the plague was so prevalent by the first of the year (January, 1430) that the “children spoke of it in the streets.” In Jumada II/February the Chief Shafi’i Judge ‘Alim al-Din Şāliḥ gathered a large group of people that went out to the desert tomb of Barquq to pray and offer supplications to Allah.

The chief Qadi 'Alim al-din Şāliḥ gathered many and went into the desert outside the Bab al-Naşr, and he sat on the ground beside the Tomb of Barquq and the people were disorderly and the noise of the men and women increased and their crying and their calls and their supplications, and then they dispersed before noon, and the number of the dead increased during this time.⁴⁶³

Maqrizi makes it clear that this untraditional type of behavior did not reduce the number of plague deaths. There is a similar sense of disdain or weariness when he describes the failed attempts of the doctors to save lives during this epidemic. “And the doctors were occupied with the flooding and the mixture of the humors in the spring, and their freezing in the winter, but Allah does what he wants.”⁴⁶⁴ As in the plague of 1419, Maqrizi mentions the doctors in whom he has no confidence, and their ineffectiveness in treating the sick.

In addition to the unusual timing of the plague, Maqrizi describes symptoms he terms uncommon and not normally associated with plague epidemics that he has previously witnessed.

Death spread quickly from the plague and the cough descended from the brain to the chest and the people died in less than an hour, without appearing sick. Most

⁴⁶³ Maqrizi, *Suluk*, 7, 203-204.

⁴⁶⁴ Ibid.

of these were infants and young children and then the slaves and the handmaids, and the fewest (cases were) in the men and women. In the city of Egypt, Fustat the number of dead exceeded 200/day...and in Cairo it was 300/day. And those that prayed in the Christian chapels for the funeral processions were a great number. And the number of those who died in Naharia specifically reached 9,000 except for those not listed, and there were many. In Alexandria the number of dead was one hundred/day and the epidemic included Buḥira, Ghrarbia, and Qālubia⁴⁶⁵

Maqrizi is interested in providing details on the high mortality and in recording both the unusual timing of the epidemic and also the odd symptoms and speedy death. He calls this the plague (*ta'ūn*) but from his description it appears that it may have been something else entirely. The young appear to be disproportionately infected, possibly because the men and women have already developed immunity from a previous epidemic. Maqrizi includes details of animal deaths that he believes are linked to the human epidemic. "In the Nile and the ponds...many fish and crocodiles were found floating on top of the water...as if they were infused with blood. And in the open spaces between Suez and Cairo a large number of gazelle, wolves, and donkeys were found dead."⁴⁶⁶ While he does not draw a conclusion or connect the deaths of the animals to human mortality, by his inclusion of these details there is a sense that in some way human and animal deaths are linked in Maqrizi's account.

Similar to his description of the four boys to be circumcised in the plague of 1419, Maqrizi describes several specific events that occurred during this epidemic. This is possibly to demonstrate again the speediness of death and the sad circumstances of individuals dying with families unaware of their deaths and the location of their graves. There is a greater impact when the story appears as a personal account rather than a continuous mortality list. Maqrizi's description of a group of fishermen and sailors who

⁴⁶⁵ Qālūbia and Ghrarbia are north of Cairo, Buhaira is northwest.

⁴⁶⁶ Maqrizi, *Suluk*, 7, 206.

contracted the disease gives the contemporary reader the impression that this epidemic spread quickly and was extremely contagious.

Death intensified and there were eighteen fishermen in the right place and fourteen died among them in one day. The four (remaining) began to prepare them (the dead) for burial and three died standing up, and the last tried to care for the seventeenth, until he arrived at the grave and he also died.

Forty men were on a ship and they were heading towards Upper Egypt, and they all died together before their arrival. And a woman was riding a donkey from Egypt to Cairo and she died while riding and her body lay in the road all day, and she began to smell and she was buried. No one knew her family. And when a person died, they began to decay quickly with the chilliness of time.⁴⁶⁷

Maqrizi employs specific episodes to demonstrate the devastation and calamity affecting the population. There is a sense of sadness in his telling the story of the woman who died in the road and was buried without her family's knowledge. The odd season of this epidemic, the speed with which the epidemic killed eighteen fishermen crowded together on a ship, and the earlier description of a cough and sudden death suggests the probability that this epidemic was not bubonic plague.

The number of dead in Jumada II/March exceeded 2,200 in Cairo but this number does not include mortality from the surrounding areas of Egypt, the desert, or the two cemeteries. The diwan of inheritance stopped announcing or listing the dead when the number reached 390 because there were no longer any coffins to carry the dead. Maqrizi emphasizes the hardships for the 'ammah, the futility of the classical medicines, and the evil of the Mamluks whom he despised. He shows no sympathy for the Mamluks dying in the citadel and demonstrates his room to maneuver in his criticism of the elite.

In these days, the price of robes to wrap the dead increased and the price of what was needed by the sick increased, like sugar and seed purslane and pears. Those that were only slightly sick recovered with medicine, but most of them died, some

⁴⁶⁷ Ibid.

in an hour or less. The epidemic increased in the sultan's Mamluks in the Citadel, those of the greatest corruption and evil, and the greatest of arrogance and wickedness. Among them 450 became sick and fifty died in one day.

Maqrizi's description of many of the sick dying in an hour or less, with no symptoms or only a cough, and his comment, "this epidemic spread like none before it," indicates this epidemic was highly contagious among people.⁴⁶⁸ The crowded conditions in which the Mamluks lived could have increased the rate at which the infection spread among those crammed into the citadel.⁴⁶⁹ His comments that people who were only slightly sick recovered with medicine indicates that Greek medical treatments were viewed as successful in treating some apparently milder cases of plague. Maqrizi's comment that most of the sick died in an hour or less reinforces the premise of Greek medicine that the balance or imbalance of an individual's humors dictates the lethality of his illness.

Maqrizi's obvious disdain for the Mamluks, particularly those living in the citadel, indicates that he feels no remorse for those who have died; because the Mamluks are of the greatest evil in his eyes, the author projects a sense of moral satisfaction in their deaths. This passage could also indicate his satisfaction at no longer being tied into such an evil and arrogant network. The author obviously has no qualms in criticizing those he finds immoral and distasteful, and he must have had great independence at this point in his life to so freely criticize the Mamluks. Maqrizi, towards the end of his life, obviously acting with great independence, did not fear royal repercussions due to his comments and

⁴⁶⁸ See Jacob L. Kool, "Risk of Person-to-Person Transmission of Pneumonic Plague," *Clinical Infectious Diseases*, 40, No. 8 (Apr. 15, 2005), 1166-1172, accessed November 13, 2013, <http://www.jstor.org/stable/4463255>.

⁴⁶⁹ This highly contagious epidemic appears to indicate pneumonic plague and yet modern research has demonstrated that the majority of people that contract pneumonic plague die so quickly that it is almost impossible for a cycle of infection to continue for any length of time.

disdain of the Mamluks.

On the seventh the number of dead that were prayed over in the famous oratories was 1,200 and the number in the other chapels, only Allah knows... On the ninth, the number prayed over was 1,263 and only forty were not announced by the diwan. And those prayed over at the Bab al-Nasr on this day numbered forty-five with some amirs and companions (among the dead) who had no coffins. So some took coffins from the road. The son of a wazir died and they (the amirs and companions) – even in their greatness and strength – were unable to provide help in obtaining a coffin for him. So they took a coffin from the hospital (*māristān*).

On the tenth at the Maslah Bab al-Nasr the number of dead reached 505, and on the eleventh in the famous oratories in Cairo and the surrounding areas the number reached 2,246. Some (bodies) disappeared and never arrived (to be prayed over) and the number of dead in one day at the Bab al-Nasr exceeded 800 and there was a similar number at the Al-Mu'mina Oratory under the Citadel.

It is agreed that during this epidemic there were many oddities. Near the great cemetery and also in the small cemetery there were about 3,000 black men and women, young and old, who perished in the plague. Until none remained among them but a few. And they fled to the highest mountains and they remained wakeful throughout the night and sleep did not take them due to the power of what had descended upon them in terms of losing their people. And they continued the next day in the mountain and on the second night, thirty people among them died. It is also agreed that the iqta's were transferred to nine different people in only a few days.⁴⁷⁰

And from the great amount of work due to the sick and the dead, the linen shops stopped buying and selling and the confusion intensified among the people as they demanded shrouds and coffins. The dead were carried upon boards and cages... and the people were unable to bury their dead, and they spent the night in the graveyards. And they dug through the night to bury them, and made many holes to receive the dead. And the dogs ate the extremities of the dead, and the people spent the entire night working on requests to wash and carry and wrap (the dead).⁴⁷¹

On Friday, the fifteenth, Jumada II, (March tenth, 1430), Al-Sayyid Al-Sharīf Shihāb al-Dīn Āḥmad Bin 'Adnān the private secretary, by order of the Sultan, gathered forty Sharif, each named Muhammad, and he divided 5,000 dinars among them. And they sat in the mosque of Al-Azhar, and they read what was in the Holy Quran after the noon prayer on Friday, and then they and the people called to Allah the mighty, and the people in al-Azhar Mosque and they continued praying to Allah until the afternoon. The forty Sharifs rose together and left, and then they descended and performed the afternoon prayer with the people. And it

⁴⁷⁰ Ibid. 206.

⁴⁷¹ Ibid. 207

was this that some Persians indicated was employed in the lands of the east during a past epidemic, and the epidemic was lifted immediately after. When it was Saturday the epidemic began to lighten and each day this continued until it ceased in Upper Egypt, and in the Wadi al-Arab, and in the city of Hama, and the city of Homs.

On Sunday the first, Rajab 833/April 1430, the epidemic had diminished in Cairo, but it still continued throughout the spring. Death spread in the eyes of the people...and the price of medicine needed by the people had doubled because the sickness had continued for so long. Afterward, a house was devoid of the sick or dead, and this epidemic spread like none before it. A great many houses were empty of all who had been in them, indeed property was abandoned by a number of the dead and taken by those who did not deserve it.

Death continued to spread among the sultan's Mamluks. A book came from Tripoli and the Sharif 'Amād al-Din Abu Bakr Bin 'Ali Ibn Ibrahim Ibn 'Adnān could find no one to deal with it and open it for the sultan...And Abu Bakr was at that time dealing with the death of his brother who had been appointed private secretary. He told me, May Allah have Mercy on him, that he left from the presence of the sultan until he found one among the Mamluks outside the palace and he (ibn Adnan) entered with him and then he opened the book and read it to the sultan.⁴⁷²

Further reinforcing that this disease was extremely contagious is the story of only a few black men and women out of a group of 3,000 surviving the epidemic. The speed of the epidemic's transmission and the injustice that paralleled it is mirrored in Maqrizi's description of empty homes taken by strangers that did not have inheritance rights. The system of inheritance had broken down during this devastating period and Maqrizi reinforces a sense of social disorder in his note that one iqta' might be transferred to many different people in only a few days and homes were occupied by those who had no ownership rights.

Maqrizi's description of people in general, but specifically the amirs and companions, with their wealth and power, still unable to procure coffins for their dead illustrates a disease that indiscriminately strikes at every level of society. Epidemics

⁴⁷² Ibid. 208.

equalized the social classes in many ways; the wealthy could purchase medicine, but it did not offer a cure for the majority and the wealthy and powerful died alongside the common people with no access to coffins, linen shrouds, or even a proper grave. This idea is reinforced when Maqrizi describes the Sharif Abu Bakr who was unable to deal with his duties to the sultan because he was preoccupied with funeral arrangements for his brother.

Maqrizi's inclusion of the gathering together of forty Sharifs reflects his possible acceptance of rituals to lift the plague originating in a Persian custom. In the plague of 1419 he was very clear in his objection to the desert prayer rituals because this ritual was not part of the Muslim ancestors' traditions during plague epidemics. The fluidity of his views is demonstrated in his comments on the plague of 1429-1430. His inclusion of the information that the plague was lifted immediately after the prayer ritual in Persia indicates that despite his earlier admonishment that Muslims emulate their ancestors, there might be additional rituals that are effective against the plague.

In addition, Maqrizi's description of the gathering reflects the significance of the number forty in the Quran. Some examples of this significance include the following: the Prophet was forty years of age when he received the teachings of Allah; the Prophet was tempted by Satan in the desert for forty days; in the fortieth ayat of Surat al-Baqara Allah changes the topic; the Prophet initially had forty followers to spread the word of Islam. With regard to other religious figures, Moses spent forty days on Mount Sinai before receiving the ten commandments, the rain during Noah's time lasted forty days, Jonah was in the whale's mouth for forty days and Moses spent forty years traveling in the

desert.⁴⁷³

Ibn Hajar begins his description of the 833/1430 with comments like Maqrizi on the strangeness of the plague's timing in winter. Ibn Hajar had just been dismissed as Chief Shafi'i Qadi by Sultan Barsbay in 1429, but was then reinstated in 1431 after the plague. Ibn Hajar maintained a wide network of friends through his many appointments at this time; he was instructor in fiqh at the Kharrūbīyāh School in Ramadan 831/June 1428 and he also taught Shafi'i fiqh in the al-Ṣalihīyah School.⁴⁷⁴

The coastal areas were infamous in the matter of the plague, the Bahri (coastal) areas. It is said that in Mahalla 5,000 people died and in Bahraria⁴⁷⁵ and in Alexandria each day at least 150 died. This phenomenon is noted because it (the plague) took place in the height of winter. It had spread in Bursa and other places in the lands of Rum until the number of those who died increased to 1,000 at least. And when Rabi' II began (January) the number of those who died in Cairo reached twelve each day and the end (of the month) it was closer to fifty/day.

On the first of Jumada II (February) it reached one hundred. And the people were called to fast for three days and give penance and go into the desert on the fourth day. The Sharif Katib al-Shir (private secretary) went out and the Shafi'i Qadi left and a great number of people of fine character and the public gathered, raised a hue and cried out and then departed at noon. And many of them died and the number multiplied from what it was and it reached 300/day in Cairo. And in the Nile it was a great thing, the fish and the crocodiles were found floating dead, just as on the land a number of gazelles and wolves were found dead.⁴⁷⁶

Ibn Hajar is aware of the increase in the infectious rate of this epidemic following the large gathering of people, when he notes, "a great number of people of fine character and the public gathered.... and many of them died and the number multiplied from what it was." Ibn Hajar noticed a connection between the large gathering of people and the

⁴⁷³ The Muslim Voice, accessed February 20, 2014, <http://themuslimvoice.net/2009/04/22/why-is-the-number-40-important-in-islam/>. For details on the numerology associated with the number forty in the Quran see Miracle of the Quran, accessed February 20, 2014, http://www.miraclesofthequran.com/mathematical_16.html.

⁴⁷⁴ Kawash, "Ibn Hajar 'Asqalani..." 131.

⁴⁷⁵ Ibn Hajar, *Inba'*, 1967, 3, 436. The footnote says that this could also be Najraria.

⁴⁷⁶ Ibid.

accelerated mortality following the assembly of the group. Again the indiscriminate nature of this epidemic is reiterated here with the mention of many people, despite being of fine character, who contract the disease and die. The accelerated mortality following the group crowded together indicates an extremely contagious disease that was possibly airborne.

Ibn Hajar repeats Maqrizi's account of forty people who died on the boat heading for Upper Egypt and the eighteen fishermem who all died within a few hours. He notes that the number of dead reached 1,200/day in Cairo and the number of dead among the sultan's Mamluks was fifty/day. Five hundred and fifty individuals were prayed over in one day and then that number reached 2,246 (there is no mention of exact locations for these prayers as in Maqrizi's account). By the end of Jumada I (end of January) 1,800 people died in one day. Like Maqrizi, Ibn Hajar also describes the desolate situation in the graveyards and the gathering of forty Sharif.

The gravediggers dug one large grave, gathered all the dead and threw them all in. Many shrouds were stolen, and the dogs dug up the bodies and ate the extremities of the dead and many of those that prayed at the Bab al-Qirafa (south of the Citadel) witnessed this excavation, and they stoned the dogs with eggs and hovered over the dead. In the streets it was if there was one great row of the dead (being taken for burial).⁴⁷⁷

And in the middle of Jumda II the Sharif Katib al-Sir gathered forty Sharif named Muhammad, and he (the Katib al-Sir) distributed money among them and they read from the Quran after the Friday prayer in al-Azhar Mosque. And when it was afternoon they moved to the roof and they called everyone to prayer and some of the Persians attended who had been tested. And they said, "Indeed, this lifted the plague (when it occurred in Persia)."⁴⁷⁸ In fact, the plague continued to increase, except in Rajab (mid-April). And the Hanbali Qadi, Maḥab al-Din said that 'Alī Hariri had four ships and on them were a total of 120 people, and all but one of them died of the plague.

⁴⁷⁷ Ibid. 437.

⁴⁷⁸ Ibn Taghribirdi says, "This was done at the advice of a Persian who said that it was done in the east at the time of the plague which occurred there and disappeared thereafter." Ibn Taghribirdi, trans. Popper, *History of Egypt*, 6, 658.

While Maqrizi maintained that the Sharif prayer ritual had been successful in lifting the plague in an earlier epidemic in Persia, Ibn Hajar notes that this Persian ritual failed to have any positive effect on the current plague in Egypt. Ibn Hajar notes that the Hanbali Qadi told him directly about Ali Hariri and the plague deaths on his four ships demonstrating the high level of connections at this point in this life. These high level connections within his network are reflected in his account, missing from Maqrizi's narrative, of the discussions between the sultan and the ulama regarding the permissibility of formal prayer and supplication to lift the plague.

And when the plague intensified the sultan called the ulama together and questioned them about the plague. He asked, "is it prescribed to pray that the plague be lifted or are supplication prayers recommended and what did the ulama do in the past? And each (ulama) wrote his answer and (all of their) opinions diverged on qunūt (humility before God); they agreed that *du'ā'* (supplication) was acceptable. It was determined that prayer, supplication and penance by those who repent is prescribed and then the darkness will depart. With the promotion of virtue, the evil will come to an end."⁴⁷⁹

The Shafi'i Qadi answered that the law permits qanūt in cataclysmic events. And the Hanafi and the Maliki said that qanūt prayers were prohibited. And the Hanbali Qadi responded that there are two views as related to the plague by the great imam (Ibn Hanbal), (it is permitted) on any day but Friday.⁴⁸⁰

Ibn Hajar's detail of the debate regarding qunut prayers and the disagreement among the ulama demonstrates his interest and expertise in hadith, his connections to this network, his probable presence at this meeting, and the fluctuating nature of the four schools of thought. The three-day fast and supplication to lift the plague mimics the original three-day fast and supplication for rain (*istisqā'*) as practiced by the Muslim ancestors. There are two views on *istisqā'*, the main disagreement being whether formal

⁴⁷⁹ Yacov Lev has a slightly different take on this section, "they all agreed that *du'ā'* prayers, imploring God, and repentance is acceptable. However, repentance, the cessation of oppression *mazālim* and the implementation of the dictum *al-amr bi al-ma'rūf* take precedence over supplication prayers." "Symbiotic Relationships," 18.

⁴⁸⁰ Some jurists disapproved of fasting on Fridays.

communal prayer is part of the supplication. The two hadiths dealing with *istisqa'* disagree on the matter. Regarding the supplication to lift the plague, often the Hanbali and Shafi'i schools rejected *qanut* based on the conflicts in the hadith regarding *istisqa'*. The Malikis approved of fasting and *qanut*, but the Hanafi school rejected formal prayer as part of the supplication for rain, and therefore for plague.⁴⁸¹

In Ibn Hajar's account of this epidemic, the fluid nature of the jurists and the four schools they represent is depicted. The qadis' decisions hinged on the circumstances, and even if some jurists disagreed with the final decision, the sultan ultimately dictated how events would play out. In Ibn Hajar's account the Hanafi and Maliki qadis say *qanut* is prohibited, the Hanbali qadi argues that is permissible on any day but Friday and the Shafi'i qadi says that it is permissible. Ibn Hajar, himself a Shafi'i, wrote a treatise specifically on the plague, *Offering Small Kindnesses on the Virtue of the Plague (Badhl al-mā'ūn fī faḍl al-ṭa'ūn)* where he argues that supplication by an individual or group is permissible to lift the plague. He also suggests "people read specific Quranic verses in their home for three consecutive nights to prevent the plague from entering."⁴⁸²

Then a fatwa by the ulama was read to the sultan and he asked the meaning of the cessation of oppression as mentioned. They (the qadis) mentioned a summary of things (unpopular government actions) and the sultan declared he would abolish innovations since the time of Sultan Barquq. The Shafi'i Qadi mentioned several oppressive actions introduced by Sultan Barsbay in that year. These included the Kārimī (spice) merchants forced to sell spices only to the sultan, the forced purchase (*tarḥ*) of natron (mineral salt), and the growing of sugar cane only on the sultan's lands.⁴⁸³

⁴⁸¹ Kristen Stilt, *Islamic Law in Action*, 86.

⁴⁸² Ibid. 86.

⁴⁸³ Sultan Barsbay was infamous for high customs duties and monopolies on spices, particularly pepper. Pepper was imported from the Orient to Jeddah and unloaded and shipped to Egypt and sold to the Venetians. Barsbay's extortion of the Venetians began in 1426, and continued in 1428 and 1429; with the Mamluks' control of Cyprus the Venetians were left with little choice but to pay the sultan's increasing monetary demands. Clifford Wright, "The Medieval Spice Trade and the Diffusion of the Chile," *Investigations*, Spring, 2007, 36-37, accessed February 20, 2014, <http://cuwhist.files.wordpress.com/2013/02/the-medieval-spice-trade-and-the-diffusion-of-the-chile.pdf>.

An order went out and the qadis and amirs called on the people to repent and refrain from sinning and pray more and the like. In Cairo, the order prohibited women from appearing on the streets and visiting graves and the sultan threatened donkey drivers with hanging and the women with drowning, and he left after that.

One in the sultan's service mentioned that Qadi Zayn al-Dīn al-Tafhanī told him that he saw in his sleep Hisām al-Dīn Darghan a servant in the Shaykunia who had died this year of the plague. He (Qadi al-Tafhanī) asked him (in his dream) about his condition and Hisam al-Din said to him, "paradise is open to all Muslims." Hisam al-Din was a very good man, of great benefit to the students of the Shaykhunia and his service there was good.⁴⁸⁴

Ibn Hajar's description of the disagreement among the qadis of the four schools illustrates differences in interpretation among members of the four schools with regard to plague. There is a definite sense that plague death for Muslims is martyrdom when Ibn Hajar describes Qadi Zayn al-Din's dream of Hisham al-Din, "a good man who had done much for the Shakyunia School," who died of the plague and was in paradise. By telling this story, Ibn Hajar seems to indicate paradise is open to all good Muslims, who like Hisham al-Din accept that the plague is God's Will and move on to a better place.

Ibn Hajar's account of the innovations from the time of Sultan Barquq that Sultan Barsbay vows to abolish indicates Sultan Barsbay is ignoring the innovations that he himself has imposed, particularly those targeting trade and agricultural monopolies. Ibn Hajar's criticism is subtle here, befitting a scholar who will be reinstated as Chief Shafi'i Qadi at the end of this plague epidemic. While Ibn Hajar has agency, he is at the mid-point of his professional career, and appears more circumspect in his criticisms of Sultan Barsbay. He obviously believes that the sultan's monopolies are innovations, but he presents this view through the debates of the ulama from the four schools. Unlike Maqrizi who had withdrawn from professional and elite circles during the recording of events for this epidemic, Ibn Hajar uses criticism, but in an indirect manner. Maqrizi's

⁴⁸⁴ Ibn Hajar, *Inba'*, 1967, 3, 438.

failure to mention this incident is possibly due to his ambivalence towards the four schools of thought and perhaps his obvious disdain for the Mamluk sultans and amirs during his lifetime. Or since Maqrizi had completely withdrawn from the elite circles at this point in his life, there would be no reason for his attendance at the sultan's gathering or his interaction with the four chief qadis. This group would no longer be within his constellation of relations.

Ibn Taghribird's account of this epidemic includes the number of deaths in the Nile Delta, with "more than 5,000 dead counted in al-Mahalla."⁴⁸⁵ Like Maqrizi and Ibn Hajar he mentions that plague had occurred in Gaza, Jerusalem, Safa and Damascus since the previous April (832/1429). He describes the physicians' discussions about the odd timing of the plague and the humors' fluidity in spring and their inflexibility in the winter, noting that the inverse was true for that year (833/1429-1430). Linked closely to the sultan's court circles, Ibn Taghribirdi provides information about the sultan's refusal to go to war with the ruler of Tabriz. He labels this plague "the great extinction which occurred in Egypt and its provinces in 833."⁴⁸⁶

On Thursday Jumada I/January a proclamation went out that all should fast for three days, all should turn to God, avoid sinning and leave their inequities. On Sunday, Jumada I they should go out into the desert. On that day Chief Qadi 'Alam al-Din al-Ṣaliḥ al-Bulqinī went with the vast throng to the desert plain outside Cairo and sat beside the tomb of Al-Malik al-Zahir Barquq and preached to the men. Profuse were the cries and tears and supplications. On the eighth a letter arrived from Iskandar ibn Qara Yusuf,⁴⁸⁷ saying he intended after the winter

⁴⁸⁵ Ibn Taghribirdi, trans. Popper, *History of Egypt*, v. 18, 69.

⁴⁸⁶ Ibid.

⁴⁸⁷ "[The] policy of Mamluk sovereignty and active representation in Anatolia — 'of reward and coercion', as Kellner-Heinkele puts it, revolved around several warring tribes." 'Uthmān Qara Yülük (r. 1403-1435) of the Aq Kunyulu tribe was allied with the Dulgadarid tribe, both enemies of the Mamluks. Iskandar ibn Qara Yusuf (r. 1420-1436) ruled the Black Sheep Turkoman tribe in Anatolia (Diyar Bakr and Erzincan) and was in an almost constant state of battle with the Timurid ruler Shah Rukh (1405-1447) who controlled Iran and Azerbaijan. Anatolia had other warring tribes at this time (Karamanids, Ramadanids, etc.) each competing for Anatolian resources and pulling Sultan Barsbay into their constant squabbles. Added to this tense atmosphere, Sultan Barsbay's old foe, Jānibāk al-Ṣufī, imprisoned in 1421 in Alexandria, had escaped

to make war on Qara Yuluk, but the sultan disregarded the letter because he was preoccupied with the deaths of his Mamluks and others from the plague.

Ibn Taghribirdi alone mentions the sultan's refusal to concentrate on military matters due to his preoccupation with the death surrounding him. This account provides a more positive image of the sultan as expected in a description written by an intimate friend.

Plague was more severe in this month and it increased every day until the number recorded each day was about one hundred. The plague embraced most of northern Egypt. In this month many fish and crocodiles were found floating dead on surface of water and a large fish (buniya) was caught and it looked as though it had been dyed with blood because of the intensity of the redness. A large number of gazelles and wolves were found dead in the desert between Suez and Cairo. There are reports of plague in the lands of the Franks.

Between the end of Jumada I/February twenty third and the end of the month the number of dead over whom prayers were recited in oratories of Cairo and its suburbs was registered as 2,100, of which only 400 or more were entered into the pages of the bureau record. The plague spread among the people and it increased in its degree of virulence.⁴⁸⁸

Ibn Taghribirdi repeats the story of the forty men on a ship who all died,⁴⁸⁹ the eighteen fishermen who died and the woman riding the donkey that Maqrizi and Ibn Hajar described. Also, he adds that the mortality was so bad in Siqyaqūs Monestary that daily mortality reached 200 each day, and the epidemic intensified in al-Manufiya and al-Qalyubiya until "600 died in a single village."⁴⁹⁰ Ibn Taghribirdi provides his personal thoughts on events that occurred during the plague.

in 1423 and was actively pursuing alliances with the Dulgadarids in opposition to the Karamanid-Mamluk alliance. Janibak also participated and led many raids against the Karamanids and was a constant thorn in Sultan Barsbay's side until he was finally defeated in 1436 and fled to Central Anatolia. See Veerle Adriaenssens and Jo Van Steenburgen, "Mamluk Authorities and Anatolian realities: Jānibak al-Şūfī, Sultan al-Ashraf Barsbāy, and the Story of a Social Network in the Mamluk/Anatolian Frontier Zone, 1435-1438," Academia.edu, accessed February 20, 2014, www.academia.edu/5956066 for a detailed description of the complexity of alliances and battles in Anatolia during Sultan Barsbay's reign.

⁴⁸⁸ Ibid. 70.

⁴⁸⁹ See page 155.

⁴⁹⁰ Ibid.

What I saw myself in this plague was that many houses were left vacant of their inhabitants despite the large number of them. A single iqta' would pass in succession in a short order to three amirs, then four then five. Four prominent intimate Mamluks of my father died in one day, Uzdamur al-Sāqā, Muluḡ the armsbearer, Bairbars the eunuch (*khaṣṣatī*) and Yusuf the lancer, all of whom died in one day. We were perplexed as to which one we should lay out and bury first because of the difference in their dwellings and the scarcity of coffins and coffin stands. And by God! I witnessed the funeral only of Yusuf the lancer and sent another to the rest of them, though each of them was worthy for the sultan to pray over. On the next morning, Sunqur, my father's second confidential secretary died, and he was one of the older intimate Mamluks of the government of al-Mu'ayyad. This was besides the wardrobe keepers among them and the amirs' Mamluks who died. As for the Mamluks, slaves, slave girls and servants who died in our home, they cannot be numbered. Also (among) my brothers and their children, seven died including males and females, the oldest of them being my brother Isma'il who died at the age of about twenty.⁴⁹¹

This description is very personal and clearly illustrates Ibn Taghribirdi's wealth and the great number of Mamluks at all levels with whom he associated and those he inherited from his father. His exhaustion and confusion are also evident in his comment that he did not know which of the deceased to lay out and bury first. Ibn Taghribirdi knows many of Sultan's Mu'ayyad's Mamluks by name and Ibn Taghribirdi himself must have had a huge household staff because he was unable to count the number of slaves, slave girls, servants and Mamluks that died in his household. He describes the desperation of the amirs in trying to procure coffins and coffin stands for the dead, and his account reflects the effect on him personally. During this epidemic it was difficult for even the Mamluk elite to obtain coffins and coffin stands. While Maqrizi relates the difficulties experienced by the people, often with specific stories, he describes the situation of the amirs only in general. Ibn Taghribirdi relates the experiences of his family and the elite circles, on a personal level. He is interested in the effects of the plague on his family and friends and the general population is of little interest to him.

⁴⁹¹ Ibid. 71.

Ibn Taghribirdi cites Maqrizi's numbers for those who died in Jumada II/March but he also adds that some people made coffins for charity and these were not registered with the bureau. He describes the problems with medicines and prices as cited from Maqrizi, but then adds another personal description of events.

I say I myself saw that one of the important amirs of the first class died and they could not get a coffin for him, until one was taken from the pious foundations. When my brother went to the mercy of God the Exalted, we found a bier for him, but there were no fittings in it, so when my brother was placed on it, a sable coat from his own clothes was thrown over him, though the washer had taken 10,000 dirhams in terms of (providing) clothing, the proprietors of the funeral office would not procure the covering for this bier.

On ten Jumada II/March fifth the number of dead for whom prayers were said in the oratory at Succor Gate⁴⁹² was 505, there was a large number with ink stands and pens who had come to stand and record this. (Individual) Prayer at the oratory was omitted; people merely stood praying in one row from the gate of the oratory as far as the Chamberlain's Gate, the prayers being recited for forty or fifty simultaneously.

A child of someone in our service named Shams al-Din al-Dhahabi died and we went out with him to the oratory, the boy was less than seven years old and when we set him down to prayer over him among the dead, a large number of others was brought until their numbers were beyond counting. Then a prayer was said over them all, and we went to take up the dead boy but found that someone else had taken him and left us another one of about the same age. His family took him up but did not become aware of it. I however, perceived this and told others, but we did not inform his parents of it and said there is no profit in talking about it, there would only be an increase in grief. But when the boy had been buried and the proprietors of the funeral office took up their bier they cried out and said, "This is not our bier; this is an old one and its furnishings are worn out." I advised them to be silent, and then one of the Mamluks threatened to beat them, and they took it and went away. This occurrence was a strange and distressing one.⁴⁹³

The use of the sable coat as a funeral covering is another indication of the author's wealth and also the plague's leveling effect on society. Ibn Taghribirdi's demonstrates his empathy with his servants and their families in this passage. He notices

⁴⁹² There were many city gates in Classical Cairo. Succor Gate (Bāb al-Naṣr) was on the north wall, 400 yards west of the northeast corner. William Popper, *Systematic Notes*, XV, 24.

⁴⁹³ *Ibid.* 71-72.

that the boy has been taken by strangers, but believes it will only add to the family's distress to mention it. Ibn Taghribirdi's Mamluk heritage is clear in his description of a Mamluk coming to his assistance and threatening to beat the distraught family if they do not move on. With no strong ties to the Mamluk elite, neither Maqrizi nor Ibn Hajar could have expected this type of physical support during unsettling events that occurred during the epidemic.

Ibn Taghribirdi relates his personal experience of waiting with his friends for death to take all of them. He also relates the story of a slave girl in his household that had died a very quick death and his actions again reflect his network.

During all of this the plague was increasing and growing, so that everyone was sure he would without a doubt perish. We used to go home from Friday prayer and ... then we would take count of ourselves for the next Friday and a large number of us would be missing, some dead and some sick. Each one was resigned to death and was waiting willingly for it, having made his will, repented and been penitent. Most of the young men each carried a string of prayer beads in his hand, and had no other concern than to go to the prayers for the dead, perform the five daily prayers, weep, direct his thoughts to God the Exalted and show his humility.

At our house a slave girl died who was sick only from the morning until she died before sunset. On the next morning the servants had not been able to secure a bier for her. Her master and a number of the servants took charge of washing her body and they shrouded her in her best clothes in the best manner possible, although we could not find a bier for her. It was necessary for me to go to prayers over Grand Amir Abibugh al-Muzaffari and Shihab al-Din Ahmad, son of Amir Timraz, the viceroy. I stood at the door as the dead girl was being carried out in the hands of some of the servants, when there passed by a funeral of a woman. I took the coffin down by force and placed the girl beside the woman, and the two were carried off on the shoulders of some men. Her mother and some of the servants went along with her until they were near the tombs, when they took her from the bier and buried her.⁴⁹⁴

⁴⁹⁴ Ibid. 72.

Ibn Taghribirdi's account is full of details about his life and his network of friends. His attendance at the prayers for the Grand Amir and the viceroy's son is an indication of Ibn Taghribirdi's ties to the elite in Mamluk society. However, there is no sense of arrogance in this account, simply details of Ibn Taghribirdi's network of relationships and what he personally experienced during the epidemic. Following his statement that he attended prayers at the funerals of two high level Mamluks, he then notes the speedy death of one of his servant girls and his actions in the street demonstrate his concern for all members of his household. His ties to the 'ammah were probably through his servants as the people he chose to describe are primarily his friends or acquaintances who moved within the elite circles. There are no descriptions of the difficulties experienced by the 'ammah in general, as in Maqrizi's accounts, however, Ibn Taghribirdi's version of events demonstrates his concern for the 'ammah at a personal level. His concern is for his household and all of its inhabitants. His account reinforces Maqrizi's observations that all levels of society were affected.

Ibn Taghribirdi provides mortality numbers for the month of Jumada II/March at Succor Gate; in one day the number of deaths exceeded 800, and then on another day it exceeded 1,030. From the rest of Cairo's gates the total reached 12,300. Ibn Taghribirdi cites Maqrizi regarding the death of 3,000 blacks in the large and small cemeteries who fled to the mountains, the transferring of iqta's among several people in a few days, the closure of the markets, and the train of biers in the streets that appeared to be one long line.⁴⁹⁵

Ibn Taghribirdi describes the abatement of the plague beginning on twenty-two

⁴⁹⁵ Ibid. 73.

Jumada II/March fourteenth, but then as the sun moved to Aries on the 18th and spring began the epidemic spread from the children and servants to the prominent and older men. Like Maqrizi and Ibn Hajar, Ibn Taghribirdi then describes the gathering of forty Sharif.

The Sharif Shihāb al-din Aḥmad, confidential secretary in Egypt by order of the Sultan assembled forty other descendants, each of them name Muhammad; he distributed among them 5,000 dirhams of his money, and had them sit in the Azhar Mosque where, after the Friday prayers, they read as much as possible of the noble Quran. Then they and the men arose to their feet and prayed to God; the mosque was covered with people who continued to call upon God until the time of afternoon prayer came. The forty Sharifs then ascended to the roof of the mosque, all chanted the call to prayer, came down and performed the afternoon prayer with the people, then dispersed. This was done at the advice of a Persian, who said that it was done in the east in the time of a plague, which occurred there and which disappeared thereafter.⁴⁹⁶

Ibn Taghribirdi, like Maqrizi, notes that while the earlier prayer ritual of forty Sharifs was effective during the plague in Persia, it had no effect on the epidemic in Egypt. He describes the ongoing devastation and dissemination of the plague following the gathering of forty Sharifs. Similar to Ibn Hajar's earlier account, Ibn Taghribirdi includes information with an implicit recognition of contagion. Ibn Taghribirdi notes that many of the men who were present at the gathering of forty Sharifs contracted the illness and died a few days later.

The sickness became protracted and physicians and surgeons went to the sick. It is remarkable that the confidential secretary who assembled the other descendants of the Prophet at al-Azhar Mosque died. Then twelve days later his brother became confidential secretary but he died before he could put his robe on. Prominent men died in this plague. On twenty-three Rajab/April seventeenth it was rumored that the Amir Janibak al-Sufi⁴⁹⁷ in Cairo had died of the plague and been buried there. No one knew. There were fewer people for the caravan to

⁴⁹⁶ Ibid.

⁴⁹⁷ As mentioned earlier Janibak was one of Sultan Barsbay's Mamluks who later became his foe. He was imprisoned, escaped and later sided with tribes in Anatolia against the Mamluks. He escaped to Anatolia in 1437 and so probably did not die in this plague epidemic.

Mecca and it was postponed due to the deaths of the Mamluk lancers.⁴⁹⁸

Ibn Taghribirdi is aware of the deaths of the Mamluk lancers and that the caravan to Mecca has been postponed. He was intimately involved in these circles as he escorted the pilgrimage later in his life (1445 and 1453) and was nominated as master of pilgrimage exercises. Maqrizi was doubtful that a total of 100,000 people had died in this epidemic, but Ibn Taghribirdi argues that the mortality must have been at least 100,000, if not more, because at least 100,000 had died in Cairo and at least 100,000 had died in Upper Egypt and the Nile Delta areas. There was also plague in Gaza, al-Ramla, Damascus, Homs, and Hama and all of the Shami districts with an unknown mortality.⁴⁹⁹

1437-1438

This epidemic occurred during the final years of Sultan Barsbay who died in June 1438. Barsbay's fourteen-year old son, Yusuf, ruled for a brief three months before the regent, Jaqmaq, overthrew him in September 1438. Sultan Barsbay was notorious for his monopolies over spices, meat, grain and sugar and his prohibition of cattle sales. Sugar was considered a primary ingredient to battle the plague and the prohibitive prices because of the sultan's monopolies prevented many 'ammah from buying it. The sultan's Mamluks in this period were undisciplined and often had altercations in the streets, threatening people and treating women with insolence.⁵⁰⁰

Tensions between the ulama and the Mamluk elite were increasing during Sultan Barsbay's reign. The practice of transferring pious endowments into the sultan's treasure began and the practice was continued under subsequent sultans. Ulama were exposed to

⁴⁹⁸ Ibid. 74.

⁴⁹⁹ Ibid. 75-76.

⁵⁰⁰ Kenneth Mayer Setton, *A History of the Crusades, the Fourteenth and Fifteenth Centuries*, (Philadelphia: University of Pennsylvania Press: 1955-62), 496-497.

the constant threat of their wealth being confiscated by the sultan and many ulama were complicit in the practice of channeling funds towards their private use, neglecting the upkeep of the waqfs for which they were responsible, and making payments to their patrons. In 1434 Sultan Barsbay, in an attempt to dismiss superfluous office holders, appointed Ibn Hajar to review the waqf stipulations to schools and the khanqahs in Cairo and he discovered that ulama basically did as they wished with the waqf income, often neglecting the upkeep of the endowments. With pressure from the ulama and their patrons, the sultan backed down and Ibn Taghribirdi notes that if a more objective Hanafi Judge had been appointed then the outcome would have been more favorable. Maqrizi insists that the sultan simply did not like the way that Ibn Hajar carried out his investigation and so the plan to remove ulama from low- and midlevel appointments had to be abandoned.⁵⁰¹

The 1427-1438 epidemic occurred during the end of Sultan Barsbay's reign and ten years before Maqrizi's death. During this period, as in the previous two epidemics, there is little information on Maqrizi's life except that he spent time at home writing his histories and meeting with students and friends. Maqrizi begins his account of the plague in Rabi' II 841/October 1437 with a brief note that death had spread among the people of Hama, Tripoli and Damascus, and the surrounding areas, until the daily death toll reached 150.⁵⁰² By Jumada I 841/December 1437 the death toll had climbed to 300 people dying each day and "nothing like this had been seen in this time."⁵⁰³

By January the plague occurred in Upper Egypt and in Damascus and Aleppo, and it had intensified. And the people displayed penitence, and the taverns closed and

⁵⁰¹ Levanoni, "Who Were the Salt of the Earth?" 80.

⁵⁰² Maqrizi, *Suluk*, 7, 343.

⁵⁰³ *Ibid.* 345. This phrase is often used during catastrophic epidemics, there may have been earlier epidemics but none were as bad as the one that the author is living through and later writing about.

the prostitutes were prevented from selling themselves and the youth (were prevented from) observing the outrages...and death decreased and the epidemic lightened until it almost lifted. And the people of Halab were happy with regard to that and they gave thanks for this blessing and they opened the taverns...and three hundred people died and the atrocious epidemic continued and the outrageous death continued in Rajab, Sha'ban and afterwards.⁵⁰⁴

Maqrizi's elevated sense of morality is noticeable in his description of the plague lessening during the closing of the taverns and halting of prostitution. The epidemic again gains momentum when the taverns are re-opened. Maqrizi conveys a sense that the penance shown by the people is temporary and not sincere, as the description implies the actions taken to lift the plague were very ephemeral. Once the people had resorted to their previous immoral behavior, and it is obvious that their penance was fleeting, the epidemic intensifies and continues.

Maqrizi describes the epidemic spreading in Damascus and the great number of migrants arriving from Tabriz and Baghdad. These strangers were apparently fleeing persecution and tyranny and they settled in Damascus and Hama and Maqrizi states that it is not known how many of these people died in the epidemic. He describes strong winds in Damascus that lasted two days and the death of many cattle that died and "in them was the plague, and a great many calves were also destroyed."⁵⁰⁵ By Ramadan the plague had spread to Cairo; the servants and slaves were particularly hard hit, and most of them died very quickly.

Then on the thirteenth of Ramadan/March 1438 the sultan gathered together the four chief qadis, a number of shaykhs, and students at the Mountain Citadel.

And those in attendance asked the qadis and faqihs about the sins committed by the people; if the plague was their punishment from Allah. And the group said to him, indeed women's presence in the public spaces (or prostitution) has spread

⁵⁰⁴ Ibid.

⁵⁰⁵ Ibid. 349.

among the people marked by the plague, and also among the women who adorn themselves and walk in the streets day and night. Another suggested that it is to the benefit of the people to prevent women from walking to the market. And another argued for prohibiting only those (women) that are unveiled (from being in the streets), but not to prevent the elderly and those who do not have (family) from fulfilling their needs. As was the custom, the debate alternated between prohibiting some but not others. The sultan was favorably disposed to preventing all women from going into the streets, thinking that preventing them (from doing this) would lift the plague.

He ordered the group to meet the next day... and it was agreed to go along with the sultan's inclinations and it was announced in Cairo, Egypt and the surrounding areas that all women were prohibited from walking in the streets and absolutely not allowed in the markets. And those who went out of their homes were threatened with death...and the governor of Cairo and others began to walk in the streets and strike those that they found were women...and so no women went into the streets and due to this (situation) things had no value, and some (people) made the rounds to the doors to ask women (to buy things)... sales of clothing and perfume fell and the people were in a listless state and the markets closed and earnings were small.⁵⁰⁶

...In Cairo and Egypt...the selling of goods was disrupted and the women were prevented from walking in the streets and the women of the amirs were depressed and desolate and their children also, due to their absence. And the tensions among the people increased in terms of the injustice by those in charge of the problem and the severity of the oppression. And from the intensity of what was inside the people in terms of phantoms, illusions, fear for their children and their servants and a quick death from the plague. There were different types of hardships for the dhimmi of the Jews and Christians, I did not realize the length of the 'Umri celebration and the people suffered greatly during this festival. And the tribulation intensified for the dhimmi in terms of Jews and Christians. The wali in charge ordered them to make lists from the dead among them from today onwards and he lay in wait for them and insulted them, and he forced them to carry their documents of ownership in their hands and the frightfulness increased and the talk worsened.

It is agreed in all accounts that a mother's son died of the plague and she was unable to wash him and wrap him and take him in coffin for burial in the desert as his mother wanted. She was prevented from going out in the funeral procession because of the sultan's proclamation. She was wretched because of this vile thing that prevented her from attending the funeral of her son. And she threw herself from the highest floor to the ground and she died. Another woman went from her home for an important matter that arose suddenly, but the wali in charge shackled her and he shouted that the people take her and beat her, but nothing happened

⁵⁰⁶ Ibid. 351.

and they arrested her and her mind left her and she fell unconscious from fear. Those who attended this dishonorable punishing of the woman left her and they went away, and she was carried to her home; she was broken and her mind was messed up and she became sick for that period.⁵⁰⁷

It is apparent that Maqrizi finds the new rule directed at women ludicrous and his descriptions of the sultan's prohibitions and the ensuing actions against women in the street amplify this view. The "injustice by those in charge of the problem," "the severity of the oppression," "this vile thing," and the "dishonorable punishing of the woman," all illustrate Maqrizi's lack of patience with this unjust decree. Maqrizi is obviously concerned and makes no attempt to hide his scorn over the unjust actions directed at women. As in other descriptions of plague epidemics, Maqrizi uses specific events that occurred to illustrate the injustice of the sultan's proclamation. His description of the woman who went into the streets to run an errand and her subsequent harassment, with the note that the wali ordered people to beat but nothing happened implies that the people also believed the action to be unjust. Maqrizi's use of the term dishonorable to describe the woman's punishment reinforces the sense of annoyance with the harassment, and the sultan and those carrying out the sultan's orders. As in the plague of 1419, Maqrizi focuses on the hardships experienced by the Jews and Christians forced to carry ownership documents at all times while being harassed by the wali in charge. The picture Maqrizi paints during this period is one of increasing anxiety and tensions; the sultan is only making the situation worse.

On the sixteenth the sultan ordered that all prisoners be exonerated of their crimes, and the prisoners left as a group and settled with their families. So the closing of the prisons was recorded and the prisons closed in Egypt and Cairo, and thievery and corruption spread throughout the land.

⁵⁰⁷ Ibid. 353-354.

In this month (Ramadan) death from the plague spread in all of the lands of Iraq and no one remained. Amir al-Malā' Āthir bin Na'ir took possession of everything. And death spread also in the people of al-Raḥba and they were unable to bury their dead and they threw a great number of them into the Euphrates. And a small group of Turks no longer had any people and their livestock was neglected without a shepherd. In Gaza, the number of dead was estimated at 12,000 and news arrived of the intensity of the epidemic in the lands of the Franks (*ifranj*).

The evening of the Eid, a cold wind blew in the lands of Sham and the people from Şafad to Damascus to Hama and Halab and Dyarbakir, their trees were covered in ice and nothing remained green, everything turned black, except the willows, and the cultivated beans and barley and asparagus were covered (in ice) and...the scourge increased upon them and the greatness of the expanding death in the people...⁵⁰⁸

Maqrizi is obviously disdainful of the sultan's release of prisoners and the ensuing corruption and thievery. His description of the frigid weather appears to mirror the hardships that all the people are facing, Maqrizi is also interested in the difficulties that have been reported in Iraq and Gaza and the news of plague in the lands of the Faranj. People across the region are experiencing similar difficulties due to the trials the epidemic has imposed on everyone. Death has spread its tentacles through all of the oases including Fayyum, parts of Upper Egypt and the east.⁵⁰⁹ According to Maqrizi, death and sickness cover all of Cairo and Egypt and everything in between. It struck in the lands of Sham from al-Farāt⁵¹⁰ to Gaza, until traveling between Cairo and Damascus became impossible. In al-ʿArīsh,⁵¹¹ more than seventy people were wandering the area and they all died, and only people selling shrouds and cotton could make a living.⁵¹²

Maqrizi describes Sultan's Barsbay's last days before the ruler's death when he was suffering from an unknown ailment that included a weak appearance and his inability

⁵⁰⁸ Ibid. 351.

⁵⁰⁹ Ibid. 356.

⁵¹⁰ Al-Farāt is a town north east of Aleppo.

⁵¹¹ Arish is a town in north Sinai.

⁵¹² Maqrizi, *Suluk*, 7, 355.

to stand without support. The sultan dismissed his doctors immediately after falling ill. There is no mention that the sultan was suffering from plague, however, Maqrizi notes that plague was making its way through the sultan's household, "dishonoring" it, the male and female children, his servants, his maids and eunuchs and the Mamluks residing in the Mountain Citadel, of which 1,000 had died. Rumors of the sultan's imminent death were circulating and Maqrizi notes "160 of the sultan's servants have died, sixty of his eunuchs, sixty of his maids and seventeen of his children."⁵¹³

The sickness in the sultan worsened in Dhu al-Qa'da/April and none save a few powerful amirs had contact with him...Rumor grew of his death and the amirs and the sultan's Mamluks formed different factions, and the people were afraid of the state of war and they remained in their homes. The people disappeared from the land and their children and their women also, out of fear of looting, and the people lamented in Upper Egypt and the Coastal areas over the hypocrisy, and they disappeared for this reason. Just as the new moon of this month appeared the number of dead fell in Cairo and Egypt.⁵¹⁴

Maqrizi's describes the sultan and his sickness in general, but his focus is more on the Mamluk factions and their unacceptable behavior and its detrimental effect on the people. Maqrizi foreshadows the battles to come between the Mamluk factions after Barsbay's death the hypocrisy of the ruling circles. He views the sultan, the amirs and their Mamluks with disdain; along with the ulama, they are ultimately responsible for the well-being of the population, instead Maqrizi believes they are a constant threat to the well-being of the people. With the death of Sultan Barsbay, his teenage son, Yusuf, took over, ruled for a brief three months, and was then overthrown by his regent, Jaqmaq, who seized power and imprisoned Yusuf in the Citadel prison.

At the beginning of this epidemic, Ibn Hajar had just been reinstated as Chief Shafi'i Qadi and he held the position until April 1445. Sultan Barsbay had apparently

⁵¹³ Ibid. 355.

⁵¹⁴ Ibid. 359.

restored the appointment to Ibn Hajar out of fear that the plague was punishment for the sultan and others accepting bribes in return for professional appointments. Ibn Hajar begins his account with descriptions of the plague occurring in the lands of Sham, particularly Hama, Aleppo and Homs.

In the middle of winter the Plague occurred in the lands of the Sham and it was more intense in Hama and Halab and Homs, and then it moved to Damascus towards the end of winter, and entered the Egyptian lands in the beginning of Ramadan/February. In the beginning, twenty died in one day, and then it (the death toll) increased at the end (of the month) to eighty a day. Then in the beginning of Shawwal/March it was one hundred a day. In the first ten days (of March) it increased to 200.

At the end of Ramadan the sultan asked those attending the majlis al-hadith to discuss the reason for the ta'un (plague) and some of them mentioned to him the spread of fornication and he ordered that women be prevented from going out of their homes, except older women and the maids for daily necessities. There is no doubt that he stuck to that and the order was obeyed.⁵¹⁵

Ibn Hajar notes that Sultan Barsbay, at his Majlis al-Hadith, discussed the cause of the plague with the qadis and faqihs and the consensus was the presence of women in the public spaces. However, his account differs from Maqrizi's because Ibn Hajar maintains that not all women were prohibited from the streets; older women and maids were allowed to run errands for their daily needs.⁵¹⁶ Maqrizi's description of all women prohibited from the streets, the hardships they suffered, and the women being beaten in the street paint a much darker picture of the sultan and his appointees than the description Ibn Hajar provides of the same event. Ibn Hajar's somewhat sterile description of events belies his more theoretical focus and his somewhat ambivalent views on the sultan and his elite circle.

Ibn Hajar, unlike Maqrizi, then notes immediately following the implementation

⁵¹⁵ Ibn Hajar, *Inba'* 1969, Vol. 9, 6-7.

⁵¹⁶ *Ibid.* 6-7.

of the sultan's decree towards women "on twenty-eight Ramadan/March there was a swarm of locusts that appeared from the east and darkened the sky and then disappeared into the west."⁵¹⁷ Does he see some connection in the two trials of the plague and locusts or is he simply throwing out a random observation? He describes the severe cold snap in Shawwal/March that was like "none seen before in the season of winter, and the people resorted to wearing fur and other animals and the plague continued to spread..."⁵¹⁸ Ibn Hajar, like Maqrizi, paints a dark picture of layers of difficulties affecting Egypt and Syria, however, he never dwells on the plight of the general population. The wearing of furs and other animals is probably a reference to the more wealthy elements in society because the majority of people would not have had funds for such extravagant clothing.

Ibn Hajar tracks the spread of the plague that he witnessed, "we were praying in the al-Hakim Mosque after Friday, a fifth of the people and it began in the areas of the Ibn Tulun Mosque and then spread to Cairo – as Allah decrees."⁵¹⁹ The numbers of daily dead increased from 200 in the beginning of the month (Shawwal) to 300/day in the middle of them of the month and the "city was full of mud and water, as in the year 826/1423."⁵²⁰ During Dhu al-Qa'da/May the plague lessened and gradually the number of dead brought to the Bab al-Nasr decreased. Like Maqrizi's account, as the cold ended and the heat began to increase, the mortality lightened in Cairo, but increased in the coastal and eastern area. Ibn Hajar ends his fairly brief account of this plague with the statement that as it fell in some areas, "it increased ... in the west and Qibliya"⁵²¹ and it is

⁵¹⁷ Ibid. 8.

⁵¹⁸ Ibid. 8.

⁵¹⁹ Ibid.

⁵²⁰ Ibid. 9.

⁵²¹ Probably Asira Qibliya in the West Bank.

said they buried thousands in a day, mostly infants and slaves of all sorts.”⁵²²

Ibn Taghribirdi, like Maqrizi, provides a more detailed account of this plague than Ibn Hajar. Ibn Taghribirdi, reflecting his intimate links to the sultan and the court, emphasizes the activities of the sultan and notes his good deeds. Ibn Taghribirdi maintains that the plague began in Sha’ban/early February and he mentions that the sultan was sick and distributed money to the poor. In Ramadan/March the plague was prevalent in the children, female slaves and the black slaves and the Mamluks and also across Syria. Ibn Taghribirdi mentions the sultan’s fear of the plague and his gathering together of the ulama and faqihs at the majlis al-hadith to discuss the situation. From his detailed description, it is apparent that Ibn Taghribirdi was probably present at this gathering and he has much to say about the meeting and the subsequent proclamation.

The reading of al-Bukhari was completed in the presence of the chief qadis, scholars and jurists...the sultan was filled with fear of the plague and asked those present whether the sins which men commit are punished by God with the plague. One in the assembly said that if fornication⁵²³ spreads among men, the plague appears among them; (this also occurs) if the women adorn themselves and walk the streets in the markets night and day. One recommended that it was advisable to prevent women from walking in the markets; but another disputed this and said that only women who display of themselves should be restrained, old women and those who have no one to support them should not be forbidden to engage in their affairs.

They argued about this vehemently until the sultan leaned towards an absolute prohibition of women in the streets, thinking that then the plague would be lifted. The sultan then bestowed robes upon those who customarily wore robes at the conclusion of the reading of al-Bukhari and then ordered all to assemble before him the next day.

The sultan made the proclamation prohibiting all women from leaving their homes ordering that no woman should walk in any street or market. Any woman

⁵²² Ibid. 13.

⁵²³ Yacov Lev notes that this term, *zinā’* can be adultery, fornication, or the presence of women in public spaces. In the context of this reading he maintains that women in public spaces is probably correct, however, William Popper uses the term fornication and with the subsequent text, this appears to be more appropriate.

who left her house was threatened with death and all kinds of maltreatment. So all women, young, old and slave, refrained from going on the roads and the governor of Cairo and the chamberlains searched through the streets, beating the women they found and they did their utmost with blows and threats to restrain them. So they all refrained from going out and widows who were employed suffered severe hardship and want.⁵²⁴

This is connected to the women. The sultan has appointed a non-Muslim⁵²⁵ with no fear of God as muhtasib and this man has been removed several times as governor of Cairo. The sultan appointed Daulāt Khujā al-Zahirī as market inspector to enforce this proclamation because the sultan knew his sternness, lack of feeling, and tyranny. This (appointment) came about after a large number of officials had spoken with the sultan regarding the hardship that had come upon the women because of the prohibition of their going out in the streets.

Many officials spoke up for the women...and so the sultan ordered a proclamation to permit female slaves out to buy necessities but they could not veil their faces, rather they should have their face unveiled. His purpose in this was so that no woman could disguise herself as one of the slave girls and go out thus into the markets. He also decided that old women could go out to attend to their business, and that women might go to the baths, but not stay in them until the evening. Daulat Khuja was severe with the women and punished a large number of them so most of them ceased going out.⁵²⁶

Ibn Taghribirdi, like Maqrizi, believes this proclamation to be unjust and he appears particularly annoyed with the actions of the non-Muslim muhtasib. His dislike of non-Muslims in general is apparent here with his descriptions of Daulat Khuja and he is the only author reviewed to describe the muhtasib's injustice and cruelty during this epidemic, and his earlier tyranny when he was governor. Ibn Taghribirdi includes background on the Daulat Khuja to validate his argument; he reports that he had been

⁵²⁴ Ibn Taghribirdi, trans. Popper, *The History of Egypt*, 18, 146.

⁵²⁵ The reason for Ibn Taghribirdi's belief that Daulat Khuja was a non-Muslim is unclear; Daulat Khuja was originally one of Sultan Barquq's Mamluks, with the implication that he was probably a Muslim. Jonathon Berkey, *The Mamluks in Egyptian and Syrian Politics*, ed. Michael Winters and Amalia Levanoni, (Boston: Brill, 2004), 259.

⁵²⁶ Ibid. 147. Daulat Khuja was notorious for cruel and unusual punishments he devised for criminal elements and Ibn Taghribirdi describes him as a vulgar and malicious individual. Carl Petry, "The Politics of Insult: The Mamluk Sultanate's Response to Criminal Affronts," *Mamluk Studies Review* XV, (2011), 89, accessed Dec. 6, 2013, http://Mamluk.uchicago.edu/MSR_XV_2011_Petry_pp87-115.pdf. Perhaps for these reasons Ibn Taghribirdi found it difficult to believe such a vile individual could be a member of his own religion.

appointed governor several times and then dismissed due to his cruelty and unpopularity. The scholar is intent on describing other officials' pleas to the sultan to relax the restrictions on the women due to the hardship. His statement regarding other officials implies that they are good Muslims who have tried to persuade the sultan to change his prohibition due to the hardships faced by the women. Ibn Taghribirdi's bias towards Daulat Khuja seems personal, and his subtle criticism of the sultan is apparent in his dismay at the sultan appointing a non-Muslim known for his tyranny. In Ibn Taghribirdi's account, the sultan is aware of the injustice of his proclamation towards women and so appoints a hard and unfeeling individual that will carry out his orders with no sympathy towards the victims.

Ibn Taghribirdi agrees with Maqrizi in his dismay over the sultan releasing criminals from the prisons as another attempt to lift the plague. He notes that the intention was good but the resulting chaos and increased crime should have been foreseen.

On twenty-five Ramadan/March twenty-two the sultan liberated all the criminals and emptied out the prisons in Cairo and old Cairo, thieves and malefactors spread out in the city and those who had claims against anyone were prevented from making them. I say in this move that al-Malik al-Ashraf acted as is described in the words of someone: he sought for gain, but suffered loss despite his aim...⁵²⁷

With the beginning of Shawwal/April Ibn Taghribirdi describes the hardships suffered by all the people. The women suffered due to the proclamation against their going out into the streets and also the stress of losing relatives and children and not being allowed to attend their funerals or burials. Women were not allowed to visit the graves of their relatives, and the plague amplified tensions within the population. Ibn Taghribirdi

⁵²⁷ Ibn Taghribirdi, trans. Popper, *The History of Egypt*, 18, 146.

believed the proclamation was a foolish move on the sultan's part, his criticism of the sultan and the muhtasib is harsh and Ibn Taghribirdi apparently has no fear of reprisals.

I say, this was the result of the ineptitude of the rulers and the bad judgment of those appointed to deal with dissolute women. Surely the virtuous woman is recognized even if she is in a tavern and a harlot is recognized even if she is in a Sacred House. This is not hidden from the one of sound judgment, but this and similar matters are the result of the appointment to office of those unfit for it. The intelligent and discerning and sagacious ruler, if he performs some task, does it with diligence, follows up a stream of sources and holds on to what he had in view until he had finished it in the quickest time. And that does not make necessary any part of the trouble in which the people (find themselves) now, the loss of good with bad, the innocent and guilty and the administration among Muslims of one like this ignoramus, who is of the class by one who said: And had the Lord so wished he had distinguished them by threefold mark: by horns, and tails, and cloven hooves.⁵²⁸

Ibn Taghribirdi is free in his criticism and harsh words directed at the sultan and the ulama, all of whom are responsible for the increasing hardships of the women, preventing them from going out into the streets, lumping the bad with the good. His words towards Sultan Barsbay, whom he calls an ignoramus, and compares to Satan, make it obvious that Ibn Taghribirdi's place in society at this point is very secure. It is unknown whether Ibn Taghribirdi held any professional appointments during his life, but he could feel fairly safe in his criticisms of a sultan who would soon be dead. Later Ibn Taghribirdi was linked closely to Sultan Jaqmaq's inner circles; there were no apparent repercussions due to his earlier criticisms of Sultan Barsbay.

This author's description of the two women suffering the injustice of the sultan's proclamation is offered from a slightly different perspective, with a focus on the evils of the muhtasib.

During this time Daulat Khuja, the market inspector of Cairo, was following the women and putting them under restraint as punishment. Until one day he seized a

⁵²⁸ Ibid. 147-149.

woman and was about to beat her, when from fear she went out of her mind and was in a hopeless state. She was carried home insane and (her state) continued for months. Another woman wished to go out behind the coffin of her child and when she was restrained from doing so she threw herself down from the top of a house and died.

Ibn Taghribird's descriptions of the trials experienced by the same two women Maqrizi describe focus specifically on the evil behavior of the non-Muslim muhtasib. Maqrizi is more interested in the injustice of the situation and the people refusing to participate in the dishonorable beating of one woman. Ibn Taghribirdi is intent on naming the muhtasib responsible for the beatings and the one woman's suicide. In Maqrizi's account, there are no details of the muhtasib or his reputation as a tyrant. In Ibn Taghribirdi's account there is a sense that the sultan and his advisors are fools for punishing all women due to the bad behavior of only a few. The sultan is portrayed as an even bigger fool because he compounds his bad decision to punish all women indiscriminately with the appointment of an evil, tyrannical muhtasib to carry out his orders. Ibn Hajar's account is void of details, he reports that not all women were included in the edict and the sultan appears more positive in the absence of information regarding the muhtasib or the initial all-inclusive prohibition.

Similar to his narrative of the other two epidemics, Ibn Taghribirdi provides many details on his personal life and how the epidemic affected him.

On the ninth of Shawwal/fourth of April a strange thing happened, the people (heard) rumors that all men were to die on Friday and the resurrection would come. Most of populace feared this, and when the time for prayer arrived on this Friday, the men went to prayers. I too rode to al-Azhar Mosque as men were crowding to the baths so that they might die in a state of complete purity. I arrived at the mosque and took a seat in it. The Muezzins chanted the call to prayer, and then the imam came out as usual, mounted the pulpit, preached and explained traditions to the people. When he had finished his first address, he sat down to rest before the second sermon. He sat a long time, and people were worried until he arose and began the second preaching, but before he had finished

his address he sat down a second time and leaned against the side of the pulpit a long time, like one who had fainted.

As a result the crowd, because of the previous report of all men dying on Friday, were agitated. They believed the rumor was confirmed and that death had made the preacher the first victim. While men were in this condition someone called, “the imam is dead.” The mosque was thrown into confusion and people cried out in fear, wept with one another, and went up to the pulpit; there was much crowding against the imam until he recovered, rose to his feet, came down from the pulpit, and entered the prayer niche.

He recited the prayer inaudibly and abbreviated it until he had completed two bows. A number of biers then arrived and the men prayed over them, led by one of their number. Then while they were praying for the dead the crowd cried out that the Friday service was not valid, since the imam had prayed after his ritual purity, secured through ablution, (he) had been interrupted when he fainted. Then one of the men came forward, stood up and recited the noon prayer.

But when he finished leading the men in prayer, others rose and cried out that this second Friday service also was not valid and they performed the prayer service with another man leading them in the noon prayer of four bows. So on this day in Azhar Mosque the address from the pulpit was given twice and the noon prayer twice also. I arose immediately and behold! Men were auguring the sultan’s end because of the performance of two pulpit addresses in one place in one day.⁵²⁹

Ibn Taghribirdi’s intimate portrayal of these events effectively illustrates the tensions among the people attending services at the mosque. The people’s anxiety is palpable; everyone jumps to the conclusion that the imam, who is perhaps exhausted, has died. Attempts to validate the afternoon prayer are made several times to ensure the service is performed in the appropriate manner. Tensions from the plague have infected everyone and this tension exacerbates otherwise mundane situations. There is a note of astonishment when Ibn Taghribirdi’s accounts the peopling auguring the sultan’s demise and his subtle disdain is evident in his comment of the people linking the two pulpit addresses with the death of the sultan.

On nineteen Shawwal/fourteen April the pilgrims left with the amir of the

⁵²⁹ Ibid. 150.

pilgrimage, Āqbughā min Māmish al-Nāširī known as al-Turkumān, and encamped at Pilgrim's Lace. There a large number of pilgrims died, including the son of the amir of the pilgrimage, and his daughter on the next day. Afterwards the number of dead for whom prayers were said in the chapels was counted and it was more than 1000.

The sultan was feeling better (at this time) and he gave two doctors robes, then the next day he felt worse and ordered them (the two doctors) cut in half. The governor intervened to prevent the executions but they were finally carried out and then no doctors would treat the sultan out of fear. The sultan called all his Mamluks together when he was dying (April twenty-ninth) and he addressed Amir Khushqadam, commander of the Mamluks, and he intended to let the sultan's purchased Mamluks hear what he had to say. (The Sultan) blamed them for what they had done during his days, that he had turned against them and cursed them, then God the Exalted had sent the plague upon them in 833 and again in 841 and a large number of them had died. But he (the sultan) forgave them and he demanded they remain loyal⁵³⁰ to his son (Yusuf), and he paid them each thirty dinars. At this time the Daulat Khuja died of plague and the people were happy about this.⁵³¹

Sultan Barsbay died on thirteen Dhu al-Hijjah/sixth of June 1438 and Ibn

Taghribirdi attended his funeral. The author, tightly linked into the sultan's network is able to describe the sultan's final days, his unjust treatment of the two doctors, his addressing Amir Kushqadam, his accusations towards his unruly Mamluks, and then his subsequent attempt to bribe them to ensure their loyalty to his son, Yusuf. Although there is not outright criticism by Ibn Taghribirdi regarding the failure of the doctors to heal the sultan, the implication is that classical doctors often fail in their treatments. The elite had the same medical treatment options as the general population. With Ibn Taghribirdi's intimate links to elite Mamluk circles, and the details in his account, it is possible that he was in attendance during the sultan's final hours.

Although Ibn Taghribirdi, like Maqrizi, noted that this epidemic was like no other

⁵³⁰ Robert Irwin notes that many Circassian rulers including al-Mu'ayyad, al-Zahir Taṭār, Barsbay and Jaqmaq, obtained oaths of loyalty from their Mamluks and amirs to the sultan's offspring that were meaningless. "Factions in Classical Egypt," 237.

⁵³¹ Ibid. 150-151.

plague before, he mentions the odd seasonal timing, and his final statement for the year 841 includes a comparison of the plague of 841 to the Black Death in 749.

The Great Plague (841), of which we have known, in Egyptian towns, and Syria, was greater and worse than all other plagues, after the general plague that occurred in 749 (the Black Death). In Cairo and old Cairo a plague like this has never occurred, it differed from past plagues, it took place in the winter and disappeared in spring, usually the plague occurs in the spring and lifts in the summer.⁵³²

⁵³² Ibid. 181.

CONCLUSION: THE DIVERSITY AND AGENCY OF THE ULAMA,
AND THE AMBIGUITY OF CLASSICAL ISLAMIC MEDICINE
AND MODERN PLAGUE RESEARCH

The production of information by three significant ulama in fifteenth century Egypt reflects each scholar's constellation of relations and social background related to the authors' life circumstances in particular moments in time. These scholars' networks of relationships and the critical details they recorded vis-à-vis plague epidemics is reflected in their narratives. The moldable material that each author chose to present in his historical narrative reflects his interests, ideas and commitments. Maqrizi, Ibn Hajar and Ibn Taghribirdi reflect different parts of Mamluk society in their accounts, each presenting a unique perspective on devastating events. Together, these accounts form a more complete understanding of Mamluk society and the interactions between ulama and the ruling elite.

Maqrizi's narratives reflect a deeply moral and somewhat ascetic historian from a long line of intellectuals whose attention to detail is only matched by Ibn Taghribirdi. Maqrizi's views on morality and the application of justice spurred him to criticize those who did not live up to his exacting standards of behavior. His sense of justice can often be gleaned from his accounts of the epidemics and his descriptions of the subsequent hardships suffered by the general population. His attention to detail during the epidemics directs attention to the adversities of the general population. In this episode of his life,

Maqrizi's empathy towards minority groups like the dhimmi and women are reflected in his detailed accounts of their hardships. Maqrizi's accounts of the epidemics' horrible effects on these groups simultaneously reflect his disdain towards the ruling elite either due to their ineptitude, lack of concern for the people, lack of respect towards the ulama, or their failure to follow the hadith. Maqrizi's concern with the welfare of the 'ammah in his criticism of Sultan Barsbay, is in contrast to his earlier criticisms of Sultan Barquq for allowing the 'ammah to rise up. The fluid attitudes of these authors depend on their life circumstances at specific times.

Maqrizi's commitment to his moral standards and his attempts to live a life emulating the pious Muslim ancestors does not allow him to compromise his values. He refused to flatter and bribe his way through professional appointments and he refused to write flattering stories about the ruling the elite. In his view, the sultan and amirs in conjunction with the ulama are responsible for the well being of the people, but the reality reflected in his accounts show the elite to be unjust and tyrannical towards the population. His disdain or perhaps satisfaction with the epidemic's indiscriminate affect on all levels of society are reflected in his account of the wealthy and powerful amirs unable to find plague treatments from ineffective doctors, or procure coffins or coverings for their family members. He alone among the three ulama also records his thoughts on the failure of classical medicine and doctors of the time; the absence of any effective treatments for plague at the time reinforce the sense that human beings cannot reverse what God has sent to earth as a punishment for their sins.

Maqrizi's views on the elite appear to originate in his strong sense of justice and morality. His adherence to the idea that all Muslims, the elite and the 'ammah, should

attempt to emulate the pious ancestors is evident in his statement regarding the Prophet.

...(the Prophet) summoned all of mankind to his teachings. If he had kept anything secret, he would not have completed the mission with which he was charged. Whoever makes such claims in spite of it is a kāfir (unbeliever) according to the concurrent teaching of the whole community. The origin of every heresy is the departure from the words of the forefathers and deviation from the conviction of the first Muslim generation.⁵³³

Maqrizi appears unable to compromise his values; he was not offered any professional appointments after he refused the offer of Chief Shafi'i Qadi in Damascus, however, his inflexibility did not have negative repercussions. There are no records of professional appointments during the last years of Maqrizi's life, but there are also no records of Mamluk harassment or imprisonment. Maqrizi did not live a life of poverty, as he was able to travel to Mecca several times, write his narratives, and continue to meet with students. His high moral standard and sense of justice meant that he did not need to compromise his beliefs. Maqrizi's independence to act according to his own views on morality and professionalism allowed him the freedom to refuse appointments from Sultan Faraj and distance himself from Sultan Mu'ayyad. His refusal to accept the aforementioned position from Sultan Faraj also demonstrates his commitment to his values. He chose to refuse the appointment, which allowed him even more room for maneuver according to his belief system and personal commitments.

Compared to Maqrizi's descriptively detailed accounts, Ibn Hajar's accounts of events during the epidemics are almost sterile. His accounts reflect his lack of commitment to recording accounts of the plague unless detailed discussions of the hadith were involved. While Maqrizi might include several paragraphs with regard to incidents of plague, Ibn Hajar often reported the same information in a few sentences. His

⁵³³ Goldziher, *The Zahiris*, 185.

constellation of relations is reflected in his detailed account of the hadith discussion regarding supplication to lift the plague. His complete lack of interest in the plight of the ‘ammah is evident in these accounts. His life circumstances at the time, several professional appointments held simultaneously, and his constellation of relations including his wealthy family, merchant acquaintances and the Mamluk elite are reflected in his ambivalent accounts. Unlike Maqrizi’s subtle disdain and criticism, and Ibn Taghribird’s outright criticism, Ibn Hajar does not record his opinions on events.

His independence differs from Maqrizi’s; Ibn Hajar had wealth not tied into the professional appointments. Unlike Maqrizi, Ibn Hajar is not fully committed to high standards of behavior and a sense of morality. He is obviously not averse to accepting professional appointments in exchange for bribes. This pragmatic or perhaps hypocritical attitude is reflected in Ibn Hajar’s account of his payment to replace Chief Judge Harawi as Chief Qadi.⁵³⁴ He maintained that his actions were acceptable because of the ulama’s unpopularity within scholarly circles. However, Ibn Hajar’s views are fluid; he was unhappy with a younger ‘alim purchasing a professional position and displacing an older ulama who was Ibn Hajar’s friend.

Ibn Hajar, with a primary expertise in hadith studies does not provide many details on events during the epidemics except with regard to the ulama debates on permitting formal supplication during a plague epidemic. He also does not provide much commentary or opinions to demonstrate his views on events. Maqrizi, for example, includes the Hadith on the Plague of ‘Amwas to show his displeasure with Mamluk rituals, and indicate that they are not a practice from Islamic Tradition. Ibn Taghribirdi’s

⁵³⁴ Ibn Hajar investigated Harawi on accusations of embezzlement in 1419 so there could have been some personal animosity between the two.

personal views, like Maqrizi's, are very clear because he always begins his statements with "I say..." when he is stating his opinion. Ibn Hajar alone out of the three authors has nothing to say regarding the sultan's prohibition of women in the streets during the 1437-1438 epidemic.

Ibn Hajar's accounts of the epidemics are concise, almost to the point that he appears disinterested in actually producing his narrative. Unlike Maqrizi, Ibn Hajar does not report the tensions or trials experienced by the 'ammah, including the dhimmi. His social background and wealth indicate he did not have much interaction with the 'ammah, except perhaps through some of his students or his household staff. Unlike Maqrizi, Ibn Hajar accepted bribes and made payments for professional appointments and he does not appear torn by the questionable morality of these actions. Although he maintained he was uneasy when he accepted the position of Chief Shafi'i Qadi in 1423, he retained the position on and off for twenty years so his moral qualms could not have been particularly strong.

Of all three authors under review, Ibn Hajar's constellation of relationships is most difficult to discern due to his lack of commentary on events. His exclusion of reports or assessments regarding the hardships of the 'ammah indicate they were not within his realm of interest or concern. However, he also offers no opinions on incidents involving the scholarly and Mamluk elite or the sultan. For example, his description of the sultan's decree to gather forty Sharifs named Muhammad is a basic description of events, a note that the suggestion came from the Persians, and then a note that the epidemic was lifted thereafter. Or regarding the sultan's prohibition against women in the streets, he again gives a basic overview of events with no commentary to elucidate his

position or views.

Despite the difficulty of inferring Ibn Hajar's network of relationships in his accounts of these three plague epidemics, he obviously had agency within Mamluk circles and among the his fellow ulama. This is evident in his repeated dismissals and re-appointments as Chief Shafi'i Qadi. He dismissed himself without Sultan Jaqmaq's approval; the sultan relented and released Ibn Hajar's friend from prison, and then the sultan immediately reinstated Ibn Hajar as Chief Qadi. Ibn Hajar did not receive a final dismissal as Chief Qadi until four years later and his relationship with Sultan Jaqmaq appears to have remained friendly; the sultan attended Ibn Hajar's funeral along with many other 'ayan and ulama. These events demonstrate Ibn Hajars' agency within the elite circles and the shifting relationships and power he wielded during the reign of several sultans.

While Ibn Hajar remained silent regarding the 'ammah, and Maqrizi focused on the hardships of 'ammah and the dhimmi, Ibn Taghribirdi also focused attention on them, but he made a point of recording his obvious mistrust and vitriol towards non-Muslims, particularly Christians. It is not known what events or interactions spurred Ibn Taghribirdi's animosity towards non-Muslims. Both Ibn Hajar and Ibn Taghribirdi had great personal wealth from different sources that reflected their unique ties within society, however, Ibn Hajar had many professional appointments throughout his life, and his network of relations covered both the 'ayan and the Mamluk elite. Ibn Taghribirdi's primary constellation of relations was the Mamluk elite with a secondary network of relations with ulama. His bilingualism offered him insight and access into the elite Mamluk circles that neither Ibn Hajar nor Maqrizi could hope to access. This was a

double-edged sword, however, Ibn Taghribirdi's relationship with other ulama was apparently friendly, but criticisms regarding his Turkish skills or background may have prevented him from fully integrating into the scholarly network.

Ibn Taghribirdi's wealth and his early ties via his father to the Mamluk elite offered him great independence. He does not appear to have held any scholarly appointments in his lifetime and yet he navigated elite circles successfully while writing his histories and apparently never suffering financial difficulties; he apparently did not need the income professional appointments offered. He did not suffer any repercussions due to his clear disparagement of Sultan Barsbay and his prohibition of women in the streets. Ibn Taghribirdi participated in military operations with Sultan Barsbay, attended his weekly councils, and was a close friend of the sultan's confidential secretary. Later, under Sultan Jaqmaq, Ibn Taghribirdi was involved in pilgrimage preparations and he escorted the pilgrims to Mecca in 1445.

While Maqrizi offers insight into the plight of the 'ammah in general during epidemics, with occasional stories of an individual's plight to emphasize the hardships faced by all people, Ibn Taghribirdi offers insight into his connections to the 'ammah via his slaves and servants. He obviously feels empathy for their plight, records events surrounding their deaths, and also relays individual stories of the deaths of his household staff. Ibn Hajar possessed wealth and status, and he probably had an extensive household staff, however, nothing can be gleaned from Ibn Hajar's concise accounts of events in which he only mentions the 'ammah in general mortality numbers, "all sorts of slaves, infants, etc..."

The information provided by these three authors on the three plague epidemics

under review provides a more comprehensive picture of the life in Mamluk Egypt and Syria. Maqrizi, having withdrawn from the inner Mamluk circles, projects his austere and high standard of morality in his accounts and his connection to the ‘ammah. His narratives reflect his connections to the people in the streets and how the sultan’s decisions affect these people, including women and dhimmi. Through his withdrawal from elite circles Maqrizi is able to focus on personal interests and record his thoughts and opinions regarding the Mamluk elite and the ulama.

Ibn Hajar, while not providing much information on the ‘ammah or the elite, presents information on ulama debates regarding hadith and demonstrates the diversity of thought in the four schools with the sultan holding ultimate decision-making powers. His exclusion of information is perhaps more important than the information included in his accounts. His ambivalent attitude towards bribery perhaps mirrors an ambivalent attitude in his writing, with no criticism and no risk of insulting the elite. This diplomatic approach to recording historical events possibly played a role, along with his intelligence and extensive scholarship, in ensuring continuous appointments under several sultans throughout his life.

Ibn Taghribirdi allows an intimate view into the lives of the elites through accounts of the epidemics’ effects on him and his household. His connection to the ‘ammah is ancillary via his servants and slaves, however, his descriptions provide insight into his life and indirectly to that of the ruling elite. All three authors demonstrate the diversity of the ulama in fifteenth century Egypt and Syria. From their accounts of three tragic plague epidemics, they demonstrate their room for maneuver. They acted according to their personal commitments and interests, and their narratives during these

catastrophic events reflect their constellation of networks.

The confusion and anxiety during these epidemics is palpable in all three authors' accounts. During fifteenth century epidemics, those who survived plague epidemics did so only because of their immune systems; none of the medical treatments of the time could actually cure or prevent plague. All three authors demonstrate the overarching Islamic theme in accounts of these plague epidemics, and their adherence, and that of the Mamluk elite's, to the Covenant of Noah. God promised Noah to never again destroy creation as he did in the Great Flood. However, if man breaks the covenant then God will send down smaller punishments (epidemics, earthquakes, floods, locusts, etc...) in order to dissuade mankind from behaving sinfully. Each author describes events and then the actions taken in attempts to appease an angry God that has sent plague down upon his people.

In attempts to address issues of sinful behavior, the Mamluk elite, the ulama and the muhtasibs searched for and targeted possible culprits of errant behavior. In the plague of 1419 the dhimmi are targeted, forced to narrow their sleeves, wear specific colors and wear bells around their necks when entering into the bathhouses. They are not allowed to ride horses or mules, and Muslims attack those not obeying the new restrictions. In the taverns, jars of wine are broken by the muhtasib and he attacks the hashish dealers and the prostitutes. All of these groups are viewed as possible culprits, engaging in what the ulama view as sinful behavior. They are considered the probable reason for God's displeasure, and the Mamluk elite and notables attempt to address the suspected errant behavior to appease God who will then end the epidemic.

In 1419, these actions do not end the epidemic; perhaps the dhimmi and those

considered sinful are not the sole cause for God's anger. The sultan and the elite decide new actions must be taken to appease God. All levels of Mamluk society fast for three days and then proceed into the desert for a feast, led by a penitent sultan dressed like a sufi. All three ulama describe the ritual, but only Maqrizi implies his uneasiness with a ritual not practiced by the Muslim ancestors during plague epidemics. All levels of society participate because they were actively searching for a solution to end the plague.

In the plague of 1429-1430 the Chief Shafi'i Judge gathers a large group of people to go out to the tomb of Barquq and offer supplications to God. Maqrizi makes sure to note the ineffectiveness of this ritual, "the number of dead increased during this time." With the ineffectiveness of this ritual, the sultan's private secretary calls together forty Sharifs, all of whom are named Muhammad. With the plague continuing to spread, what other actions can be taken to appease God? A ritual used in Persia during an earlier epidemic is tried; forty Sharifs named Muhammad gather together to pray but the plague continues to spread. As the plague intensified, Ibn Hajar describes the debates among the ulama regarding the permissibility of different types of prayer asking God to lift the plague. With the prayers at Barquq's tomb and the gathering of forty Sharifs failing to provide relief from the epidemic, the prayer that mirrors the supplication for rain is tried. Subtle attempts to make the sultan change what the ulama consider to be innovations fail. So in one last attempt to appease God and cover the full spectrum of possible errant behavior, the qadis and amirs, by order of the sultan, prohibit women from all public places, and call on all the people to refrain from sinning and to pray more.

Aberrant behavior is once again targeted in the 1437-1438 epidemic that began in Aleppo. The taverns were closed, the prostitutes taken off the streets, and Maqrizi notes

“the epidemic lightened until it almost lifted.”⁵³⁵ The implication is that God was pleased, but then the taverns reopened and three hundred people died and the epidemic continues to spread. When the plague spread to Cairo in March 1438, women are again targeted as culprits of illicit behavior. The four chief qadis gather with other qadis and faqihs to debate the permissibility of women in the public spaces. The sultan, just to be safe, prohibits all women from the public spaces, and the Jews and Christians are once again harassed. In one last bid to end the suffering, the sultan orders all the prisoners released. Which, as Maqrizi and Ibn Taghribirdi note, causes more harm than good. In all three epidemics there is an earnest effort by sultans, muhtasibs, etc. to pinpoint who, and with what, is sinful at the moment when disease strikes.

While all three of these authors were fully aware of the variety of medical, Prophetic, and magical ways to understand the plague or alleviate its symptoms, the ineffectiveness of all medical treatments is implicit in their sparse commentary on treatments or medicine in general. In the plague of 1419 the prices of medicine like pears and sugar increase, and only those that were slightly sick recovered. Maqrizi’s comments on the physicians obsessing over the flowing and the mixing of the humors is described, but medicine in general appears superfluous as none of the medical treatments were effective. Ibn Taghribirdi’s comment that “the sickness became protracted and physicians and surgeons went to the sick” appears as an unimportant detail because no further information is provided. The impressions from these narratives are that despite the physicians visiting people in their homes, the sick continued to die. Those who were only slightly ill and eventually recovered did so because of their immunity, but their

⁵³⁵ Maqrizi, *Suluk*, 7, 345.

recovery was attributed to whatever treatment they pursued. If a person mixed Armenian clay into a glass of water, drank it, and then recovered, Armenian clay was validated as a plague treatment. If a person used the same treatment as a plague preventative, and never contracted the plague, then the treatment was validated as a plague deterrent.

The atmosphere of confusion and uncertainty that prevailed during these epidemics mirrors a similar atmosphere of uncertainty, despite massive amounts of research, that prevails in contemporary medical research on the Black Death and ensuing cycles of plague. The jury is still out on whether the Black Death was bubonic plague, a mix of different types of plague (pneumonic, septicemic, etc...) another disease or a mix of deadly infectious diseases. Descriptions of symptoms from fifteenth century epidemics often mirror contemporary symptomology of plague, and yet the dissemination rate as described in classical accounts appears to contradict contemporary medical knowledge of plague transmission.

The distinct and varied images that emerge from the analysis of three narratives on plague epidemics have shown the varied lives and voices of three ulama. These narratives offer various perspectives on events that occurred during periods of catastrophic epidemics. Attempts were made across all levels of society to discover the reason for God sending disease down upon Mamluk society. Mamluk society on every level was proactive in attempting to appease God's wrath and bring an end to the epidemics. Every medical treatment, from all classical Islamic medical practices, was attempted, despite a high rate of failure. Every possible ritual from different regions and periods of time was pursued and any group suspected of aberrant behavior was targeted in order to lift the epidemic. Wealth and power did not confer immunity, the Mamluk elite and the 'ayan

died alongside the masses, often without access to funeral biers or coffins. These attempts to end the plague, deal with a stressful situation, and explore all possible solutions are evident in Maqrizi, Ibn Hajar, and Ibn Taghribirdi's narratives and from their personal comments allowing insight into their lives and that of Mamluk society.

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