

Pursued by Plague

Did the Plague of Cyprian Cause the Romans to Migrate?

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ABSTRACT

Studies of migration in the context of the Roman world have gained immense popularity in recent years. Migration studies are versatile and include multiple different foci, including the movement of minorities, the various types of historical evidence for migration, and the many migration motives. Amongst those motives, contagious diseases are usually neglected by scholars as a push factor. In his most recent work, Kyle Harper takes note of the population decline during the Plague of Cyprian in Alexandria, arguing that not all of these casualties need to be dead of plague; some people may have fled the chaos. Aside from this single critical note, however, Harper does not explore the possibility that migration during the third century CE may have been caused by the Plague of Cyprian. How people spread diseases as they travel is well-researched—in history, as well as in modern times with COVID-19 restricting our mobile way of living. However, migration as a result of pestilence in the Roman world—in other words, people fleeing cities to avoid getting ill and possibly dying as a result thereof—has not been given sufficient scholarly attention. Therefore, this study seeks to analyze the extent to which the Plague of Cyprian acted as a motive for migration in the Roman Empire between 250 and 270 CE. In doing so, it will demonstrate that the Plague of Cyprian likely caused indirect migration based on socio-economic and cultural consequences rather than direct migration as a strategy to avert disease.

KEYWORDS

Migration, Plague of Cyprian, Roman Empire, epidemics, demography.

INTRODUCTION

This trial, that now the bowels, relaxed into a constant flux, discharge the bodily strength; that a fire originated in the marrow ferments into wounds of the fauces; that the intestines are shaken with a continual vomiting; that the eyes are on fire with the injected blood; that in some cases the feet or some parts of the limbs are taken off by the contagion of diseased putrefaction; that from the weakness arising by the maiming and loss of the body, either the gait is enfeebled, or the hearing is obstructed, or the sight darkened; – is profitable as a proof of faith. (Cypr., *De mort.*, 14, transl. Hannan 1933)

This is how Saint Cyprian of Carthage describes the symptoms of those afflicted by the Plague of Cyprian, a major disease that struck the Roman Empire between 250 and 270 CE. The disease came from Ethiopia and moved north to Thebes, a trajectory that is determined and confirmed by both archaeological evidence and written source material. Archaeologists have discovered a mass

grave at the site of ancient Thebes, adjacent to a body-disposal operation where lime was poured over the bodies prior to their incineration. The disease reached Alexandria by 249 CE and arrived in Rome two years later. The bishop of Alexandria provides us with 249 CE as the date by which the disease had ultimately reached Alexandria (Harper 2017, 137). The plague ravaged the Roman Empire for approximately 20 years and has been recorded predominantly in the testimonies of the previously mentioned Cyprian, the bishop of Carthage after whom the outbreak is named (Harper 2016b, 806; Harper 2017, 136; Murphy 2016, 418).

The consequences of the plague were immense. Although its mortality rate remains uncertain, the Plague of Cyprian is likely to have caused even more victims than the preceding and more well-known Antonine Plague.¹ A report of the bishop of Alexandria implies that the city's population declined by 62 percent as a result of the plague (Harper 2017, 141), and the *Historia Augusta*, a late fourth-century collection of biographies of Roman emperors, states that: 'for so great a pestilence, too, had arisen in both Rome and the cities of Achaea that in one single day five thousand men died of the same disease' (*SHA III: D. Gall.*, 5.5 (transl. Magie 1932); Smith 2014, 2). Moreover, the Plague of Cyprian was followed by a monetary crisis that lasted a century and caused chaos and disorder in the already erratic third century (Harper 2016b, 808; Harper 2017, 145). This period in which the Plague of Cyprian took place, commonly referred to by historians (Brown 1968; De Blois 1984; Liebeschuetz 2015) as the 'Crisis of the Third Century', is characterized by violence and chaos.² Examples of the woes of the third century include the persecution of Christians (most notably by emperor Trajan Decius), a multitude of short-reigning emperors after the assassination of emperor Severus Alexander (causing political and societal chaos), invasions and migrations³ into Roman territory, and an economic depression that was caused by some of the aforementioned circumstances. The many political, social, and economic issues that took place against the backdrop of the third century create noise in the material and literary evidence when trying to assess reasons for migration and the potential impact that a plague may have had.⁴ Therefore, this paper must weigh the available evidence carefully. This is especially difficult because the third century is also known as one of the most poorly documented phases of Roman history (Harper 2016a, 473); the lack of written sources, therefore, causes certain aspects of the context of the plague to be speculative.

Among the many direct and indirect consequences of the Plague of Cyprian, scholars only sporadically take the occurrence of migratory flight into account. For instance, when Kyle Harper mentions the estimated population decline during the Plague of Cyprian in Alexandria in his book *The Fate of Rome*, he argues that 'not all of these need to be dead of plague. Some may have fled the chaos' (quoted in Harper 2017, 141). Apart from this wavering remark, however, Harper

henceforth neglects the probability of migration instigated by plague.⁵ From our modern-day perspective in a world that is once again threatened by a pandemic, this historiographical omission of migration as a result of epidemics seems peculiar. Nowadays, our reaction to a contagious disease is to evade the risk of contamination by means of quarantine, or otherwise keeping our distance from the source of contagion. Quarantine as we know it was not yet known to the Romans as a method to avoid further contagion. The term ‘quarantine’ comes from the Italian *quarantena* (meaning ‘40 days’) and was first used in fourteenth- and fifteenth-century Venice to designate the period that ships were required to be isolated before passengers and crew could go ashore during the Black Death epidemic. *Quarantena* followed the *trentino*, the 30-day isolation period that was invented during the same plague and was first imposed in 1347 in the Republic of Ragusa, Dalmatia (modern Dubrovnik in Croatia) (Gensini et al. 2004).

While migration as an outcome of epidemics is thus understudied, migration as a cause of infectious diseases (the movement of people spreading the disease as they travel) is well-researched. The phenomenon is most prominently investigated by Michael McCormick, who argues that the Roman empire’s thick webs of connection made it possible for rats to let chronic diseases diffuse across the empire.⁶ To fill in the historiographical gap on the other end of McCormick’s research, this article seeks to analyze the extent to which the Plague of Cyprian acted as a motive for migration in the Roman Empire between 250 and 270 CE. I intentionally choose to analyze the Plague of Cyprian because this outbreak is understudied compared to the other two major disease events of the Roman Empire, namely the Antonine Plague of ca. 165 CE and the Plague of Justinian of 541 CE. However, because of the scarcity of evidence, comparisons to the Antonine and the Justinianic Plague will occasionally be made to fill in some historical gaps. Especially, the writings of Galen of Pergamum, who witnessed the Antonine Plague, complement the works of Cyprian fittingly.

To analyze the extent to which the Plague of Cyprian acted as a motive for migration in the Roman Empire, it is first of all necessary to set out the various sources that can be used to trace migration. I will discuss the available sources and determine whether the different types of evidence (archaeological, epigraphic, and literary) are helpful in resolving the main issue of this study—or parts thereof. At this stage, the primary textual sources are searched for direct references to migration caused by the Plague of Cyprian. Secondly, the probability of migration as a comprehensible repercussion of plague in the ancient world needs to be determined. I will do this by examining the ways in which Roman people thought about pestilence, as can be derived from literary evidence. Thirdly, this study will assess the ways in which the Plague of Cyprian instigated direct and/or indirect forms of migration. Finally, in order to arrive at conclusions, the

extent to which the Plague of Cyprian acted as a motive for *indirect* migration in the Roman Empire will be determined through an analysis of both primary textual sources and secondary literature.

As mentioned above, the Plague of Cyprian is understudied compared to the Antonine Plague and the Plague of Justinian. However, the Plague of Cyprian has left behind a body of literary evidence that in sheer volume exceeds the primary literature on the better studied Antonine Plague (Harper 2016a, 473; Harper 2016b, 806), caused more economical damage than both the Antonine and the Justinianic Plague, and had a higher mortality rate than the Antonine pandemic (Harper 2017, 18; Littman & Littman 1973, 243). Harper (2015, 223) therefore effectively calls the Plague of Cyprian ‘the forgotten pandemic.’⁷

THE SOURCES

To discern any migration caused by plague, we are predominantly dependent on the existing source material for the study of migration in the Roman world. These sources can be arranged into three main categories: epigraphy, archaeology, and history. However, because of the scarcity of evidence from the Cyprian Plague itself, some details must be filled in by comparable sources from the Justinianic Plague.

Funerary inscriptions make up the first type of relevant evidence. The contribution of epitaphs to the field of epidemiology manifests itself in two ways. First of all, the corpus of funerary inscriptions can be used as evidence to substantiate the literary evidence when literary sources on disease events are insufficient. In other words, when more epitaphs than usual date from a certain period of history, this indicates that there was a spike in deaths for that particular year or period.⁸ These statistics could indicate an epidemic. Nancy Benovitz (2014) uses epigraphic sources to study epidemics. For instance, in her article about the Justinianic plague, Benovitz (2014, 489) uses epitaphs to determine whether the impact of the plague was as cataclysmic as ancient authors make it out to have been. In so doing, Benovitz also points to the limitations of funerary inscriptions as source material. According to Benovitz, one of the major limitations of studying epitaphs as evidence for a historical phenomenon is the small sample size, since the inscriptions have to be dated in order to correspond with the historical event. During the Plague of Justinian, the custom of dating epitaphs was almost exclusively performed by Christians, limiting our datable sources to a single social group.⁹

Furthermore, Benovitz (2014, 498) argues that certain funerary customs, such as the writing of epitaphs, may have been suspended or abandoned altogether at the height of an outbreak of

plague. This causes the inferences that are made based solely on this surviving material to be disputable. Secondly, not only can epitaphs serve as non-literary evidence to support the literary data on plagues, but they can also be used to reveal migration patterns since there are cases in which epitaphs mention the birthplace of the deceased. Unfortunately, examples hereof are few, making it impossible for scholars to draw conclusions from these epitaphs with regard to the Plague of Cyprian. Therefore, although epigraphy can help us trace migration, the evidence is not sufficient to provide information about any hypothetical waves of migration during the Plague of Cyprian. This leads us to a second type of source material that may uncover evidence of migration motivated by plague, namely archaeology.

Together with funerary inscriptions, archaeological research can demystify the migration history of the deceased. Undertaking biochemical analyses of human skeletal material (by means of strontium and oxygen isotope analysis of dental enamel, for instance) can help to identify the geographic regions where the individual underwent their formative years (Killgrove & Montgomery 2016, 3). Human remains that have markers for a different region may indicate a migration history. While isotope analyses can provide information on who was moving within a specific society and where they came from (Prowse 2016, 205), the remains alone do not tell us *why* they moved. Archaeological research can thus only be helpful in the first step of this research, namely, to determine who moved where and when. Since there was no notable increase of mobility during one or more of the three main plague events of the Roman Empire, it is—based on migration numbers alone—highly unlikely that the Plague of Cyprian instigated large-scale movement.¹⁰ Archaeological evidence therefore will not be useful in the second step of this study, which is to uncover *why* people moved and if the Plague of Cyprian was among their motives to migrate. Given that the goal of this study is to investigate precisely this, i.e., whether disease was a motivating factor in why people moved, I will not be appealing further to archaeological sources in this paper.

A third method to detect migration caused by disease events is to analyze literary sources. Texts remain (as is to be expected) the most relevant sources for this study since they provide an insight into human reactions to disease events and individual motivations to move. As mentioned above, the Plague of Cyprian has been recorded most extensively in Cyprian's *De mortalitate*, in which he vividly speaks of the plague (Harper 2016b, 806; Harper 2017, 136; Murphy 2016, 418).¹¹ While *De mortalitate* is considered to be one of the most valuable sources for the Plague of Cyprian, it is certainly not the only account that mentions the plague. There are 23 distinct literary witnesses to the Plague of Cyprian, ranging from the third-century letters of Dionysius of Alexandria to the twelfth-century chronicles of John Zonaras. Of these 23 texts, only seven are

written by direct witnesses to the plague.¹² Still, these accounts cannot disclose whether the plague caused the Romans to migrate. Their quality and significance vary greatly, and while the accounts of Dionysius and others allow us to date and trace the origin of the plague, they do not include details about the disease itself or the Roman reaction to the event. Only *De mortalitate* includes enough detail to attempt identification of the pathogen responsible for the infection (Harper 2015, 227-229). Cyprian's second work that mentions the plague is his *Ad Demetrianum*, described by Harper as 'an apologetic work addressed to a local pagan who was antagonizing the Christian population of Carthage, blaming them for the incidence of war, drought, famine, and plague. It adds relatively little to our understanding of the pandemic itself' (quoted in Harper 2015, 229). Cyprian's *De mortalitate* is therefore the most relevant account of the plague for this study.

There are some important details in Cyprian's writings and their historical context that we must unpack before we can extract historical data from them. Moreover, comparing the writings of Cyprian to those of another plague witness, Galen of Pergamum (who witnessed the Antonine Plague), allows us to understand both works better through their differences. Cyprian and Galen wrote for fundamentally different reasons and, even more interestingly, Galen's account includes details about his escape from the Antonine Plague (Harper 2017, 99).¹³ In what follows, I will briefly analyze the references to flight (or the lack thereof) in the works of Cyprian and Galen.

Edwina Murphy (2016, 420) has analyzed the historical context of Cyprian's sermon and emphasizes Cyprian's concern for the poor and captive, in which he reflects the traditional practice of early Christian communities. David Scourfield (1996, 13) retains Murphy's aforementioned emphasis while explaining the consolatory character of Cyprian's *De mortalitate*. According to Scourfield, *De mortalitate* was written in the midst of the outbreak and presumably represents the published version of a sermon that was originally delivered orally to the Christian community of Carthage.¹⁴ Scourfield (1996, 14, 23) moreover argues that Cyprian's goal in delivering these sermons was 'to combat the undermining of religious convictions and appropriate Christian behavior that the plague has caused' and to 'strengthen the faith of the Christian community.' However strong Cyprian's oratory must have been to fulfill this ambition, nowhere in *De mortalitate* does he use his rhetorical skills to persuade the Christians of Carthage to run from the plague (Harper 2016a, 474). We can only guess at Cyprian's personal reasons for not convincing his audience to flee from the disease, but it may be clear that even if the Carthaginians eventually ran, it was not because Cyprian urged them to do so.

While Galen witnessed a different plague than Cyprian, his writings nonetheless provide us with useful comparative material for understanding Cyprian's accounts of the later plague. Galen was

a Greek physician who came to Rome in 162 CE, where he became our foremost reporter of the Antonine Plague (Harper 2017, 23-24). The differences between the testimonies of Galen and Cyprian are numerous. Whereas Cyprian wrote to console an audience encircled by unfathomable suffering, Galen was writing to contribute to science. In the words of Robert and Michael Littman, ‘Galen was not trying to present a description of the disease so that it could be recognized by future generations, [...] nor was he writing for the layman. He was more interested in the treatment and physical effects of the disease’ (quoted in Littman & Littman 1973, 244). The medical description of the experience of the epidemic in Galen’s *Method of Medicine* is part of the reason why the Antonine Plague is a better-studied epidemic than the Plague of Cyprian. Galen’s testimony is detailed enough to identify the pathogen as *variola major*, which is commonly known as the smallpox virus (Harper 2017, 92; Yu Li et al. 2007, 15787). Being a physician, Galen held (at least contemporary medical) reliability. His works therefore also depend less on eloquence than Cyprian’s.

Galen was present in Rome when the Antonine Plague arrived there in 166 CE, and he did not stay long; he left Rome just as the word of his arrival started to spread (Harper 2017, 99; Littman & Littman 1973, 244). Harper calls this move of Galen a ‘flight’ and mentions two different accounts in which Galen writes about his departure: ‘In an early work, he put down his return to Pergamum to obscure, hometown political circumstances [...]. In his later tract *On My Own Books*, he admitted the ‘great plague’ was the impetus for his departure. It is unclear whether he fled danger or rushed to the aid of his homeland’ (quoted in Harper 2017, 99). Harper does not specify which account he considers the most credible. Even though it is possible that Galen migrated because of the impending plague, the fact that he is the only known literary example of a (potential) plague migrant in the Roman world makes it impossible to argue—based on the textual source material—that migration was a common response to epidemics in the Roman Empire. Therefore, we must dig deeper into the available literary evidence to determine the contemporary reaction to the Cyprian Plague.

Since textual evidence that refers directly to migration motivated by disease is rare, it is necessary to discover whether migration was a socially comprehensible repercussion of plague in the Roman world. In other words, how did the Romans think of the manner in which disease traveled and spread? Did they think of quarantine or other methods to keep distance from the source of contagion as we do today? Unlike direct references to migration caused by pestilence, the answers to this question can be found in written accounts.

ROMAN THOUGHT

In the ancient world, plagues were believed to be caused by angry gods, miasma, polluted air, or a combination of divine wrath and environmental disturbance (Harper 2017, 88). According to the *Historia Augusta*, the Antonine Plague was provoked by the sack of Seleucia in 166 CE; ‘it is believed that this pestilence originated in Babylonia, where a pestilential vapor arose in a temple of Apollo from a golden casket which a soldier had accidentally cut open, and that it spread thence over Parthia and the whole world’ (*SHA I: Verus*, 8.1-2 (transl. Magie 1932); Gilliam 1961; Harper 2017, 98). Because the Antonine Plague was thought to be caused by a divine affair, running from the disease was no use; there was no hiding from Apollo. Instead, the Antonine Plague touched deep chords of religious fear (Harper 2017, 100). The Romans prayed rather than moved in order to prevent contagion. An example of the religious human reaction to the Antonine Plague can be found in a charlatan named Alexander of Abonoteichus, who sent oracles to his public to ward off plague (Harper 2017, 101).¹⁵

The testimonies regarding the Plague of Cyprian also include explanations for the transmission of the disease. Harper (2017, 140) argues that ‘one account predictably blamed the ‘corrupted air’ that spread over the empire’, and that another chronicle tradition recorded that ‘the disease was transmitted through the clothes or simply by sight.’¹⁶ The latter of these explanations originates from the ancient belief that eyesight was tactile, ejecting a flow of particles from the eye to the observed entity. The symptom of the ‘eyes [...] on fire with the injected blood’ described by Cyprian (*De mort.*, 14) was possibly inspired by these theories of tactile eyesight. It is through this assessment that we can answer the first part of the research question: did people migrate to escape the plague? From the Roman ideas about the transmission of diseases and the data derived from archaeological evidence earlier on in this article, we can reasonably conclude that it is unlikely that migration was the most reasonable social response in the face of this epidemic.

The Plague of Cyprian, like the Antonine Plague, caused a revival of religious practice. As mentioned above, Cyprian himself aimed to strengthen the faith of his Christian community that was put to the test by the epidemic, but Harper (2015, 225) observes a pagan reaction to the Plague of Cyprian as well: in Letter 59, written to Cornelius, Cyprian mentions ‘the sacrifices which the people have been ordered to observe by the edict which has been posted.’ In this letter, Cyprian refers to public pagan events that served as a local measure to avert the plague. The Plague of Cyprian thus triggered an attitude of praying to prevent falling ill rather than moving away from the dangers of infection. Through the above analysis, it can be concluded that fear of the plague was not an obvious direct reason for migration. However, people may still have migrated due to indirect reasons.

INDIRECT MIGRATION

The Plague of Cyprian and the Antonine Plague both caused economic damage, which led to food crises.¹⁷ A common reaction to famine, in turn, is sociological chaos and violence.¹⁸ Moreover, the impact of the Plague of Cyprian on Christian spiritual life had great consequences for the movement of Christians through the empire (Harper 2015, 250; Harper 2017, 249). Economic damage, violence, and the influence of Christianity influenced the migration process of the Roman Empire and affected its resilience.¹⁹ This is the topic I will here explore further.

The impact of epidemics on the Roman economy has been studied by Harper (2016b, 803), who bases his arguments on data derived from the many papyri of Roman Egypt. Harper (2016b, 833) argues that the Cyprian Plague caused even more economic damage than the preceding Antonine Plague. The already unstable financial situation of third-century Rome worsened as a result of the Plague of Cyprian, as their silver-based monetary and financial system suddenly disintegrated and was replaced by a system organized around the value of gold (Harper 2015, 250). The disintegration of both the economic situation and the population led to a labor shortage (Harper 2017, 113). Although there are no sources from the third century that explicitly mention Romans migrating in search of labor caused by this financial crisis, this would seem like a logical outcome. This is also something we do have evidence for in the preceding Antonine Plague. Together with the rise of wheat prices, labor shortage caused a food crisis during the course of the Antonine Plague (Harper 2016b, 813). According to Harper (2017, 116), Galen reported ‘continuous famine for not a few years among many of the nations that were subject to Rome.’ This famine caused the city-folks to flee to the countryside, scavenging the fields and surviving merely on twigs and grass (Harper 2016b, 813). This wave of migration caused by famine can thus be seen as an indirect outcome of the Antonine Plague.

The disarray caused by the monetary crisis and the ongoing famine led to a situation of sociological chaos and violence throughout both the Cyprian and the Antonine Plague. Although chaos and violence are predictable consequences of the social circumstances caused by plague, Colin Elliott appears to be the only scholar who addresses this phenomenon to this day, namely in his article *The Antonine Plague, Climate Change and Local Violence in Roman Egypt* (2016). Here, Elliott (2016, 14) lists examples of villages that were attacked during and after the Antonine outbreak. By his count, eleven of the nineteen Mendesian villages were depopulated specifically because of attack or ruination.²⁰ The depopulation of villages described by Elliot can be understood as yet another act of migration that was indirectly caused by plague events.

In addition to this chain of socio-economic consequences, the Plague of Cyprian seems to have inspired migration particularly because of its influence on the Christian religion. Although the evidence for the mass expansion of the Christian religion is obscure and heavily debated (Harper 2015, 257-259), scholars agree that most of the given explanations (some of which will be elaborated on in what follows) for this expansion could have at least been amplified by the Plague of Cyprian.²¹ First of all, the epidemic undermined the social network within which civic polytheism was embedded. The disease struck pagans, Jews, and Christians alike, causing instability in all religious cultures. Moreover, Christian emphasis on charity, care for the sick, and proper burial became loud advertisements for the new faith. Lastly, the prospect of the afterlife seemed attractive in a period of mass mortality (Harper 2015, 258). Therefore, it can be argued that the Plague of Cyprian contributed to the downfall of polytheism and allowed Christianity to spread through the Roman Empire (Harper 2017, 249; Harper 2015, 250). In reaction to the accession of Christianity, Emperor Trajan Decius issued an edict in 249 CE in which he obligated his subjects to sacrifice to the Roman gods. With this decree, Decius inaugurated the first empire-wide persecution of Christians (Rives 1999, 135). Naturally, the persecutions caused Christians who did not want to abandon their faith to move away from the cities in which the power of the emperor was prominently present. In fact, Cyprian himself was compelled to flee from Carthage to an unknown location because of the Decian persecutions (Rives 1999, 135). Therefore, the flight of Christians that was triggered by the sudden expansion of Christianity can be perceived as an indirect reaction to the Plague of Cyprian.

A final way—deeply intertwined with the aforementioned direct and indirect repercussions—in which migration was indirectly motivated by disease, was through the resilience of the Roman Empire. After the Plague of Cyprian had been resolved completely, Romans moved back from the countryside to the cities to complement the gaps that had been discharged by those who had passed or moved away during the outbreak (Rives 1999, 135). A similar development can be observed after the Antonine Plague. Because the military suffered a serious manpower shortage, the legionaries needed constant recruitment, resulting in a continuous flow of new soldiers moving from their hometowns to the camps (Rives 1999, 112). I define this type of migration as ‘indirect plague migration’ because it was caused by a shortage of inhabitants. Migrants were motivated by a deficiency of laborers or soldiers caused by the epidemic rather than by the disease itself.

CONCLUSION

This article has aimed to determine whether the Plague of Cyprian acted as a motive for migration in the Roman Empire. In so doing, I have first set out different types of potential evidence for tracing migration caused by plague events. It has proved insufficient to derive answers from epigraphic and archaeological material. Literary accounts also lacked direct references to migration. Based on the individual tale of Galen's escape, it cannot be argued that migration was a common response to epidemics in the Roman Empire. Secondly, this article has analyzed the probability of migration as a comprehensible repercussion of plague in the ancient world. Because it was believed that plagues were caused by divine wrath or spread by corrupted air or even tactile eyesight, Romans prayed rather than migrated in order to prevent contagion. Thirdly, because this study has demonstrated that migration as a direct result of the fear of contamination was not a comprehensible repercussion of plague in the Roman world, I have evaluated the manners in which the consequences of the Plague of Cyprian caused indirect forms of migration.

From this analysis, it has become clear that not the plague itself, but the situation that was caused by the epidemic (economic crises, famine, sociological chaos and violence, the mass expansion of Christianity, and the resilience of the Roman Empire) motivated migration throughout the empire. Flight *directly* caused by the plague itself is not explicitly mentioned in the literary evidence, but the abovementioned *indirect* consequences did cause migration. I would, therefore, argue that the Plague of Cyprian indirectly acted as a motive for migration in the Roman Empire. As of yet, it is still uncertain whether both the Cyprian and the Antonine Plague ever directly instigated migration because direct references to migration in the source material are very few. However, the fact that the well-known accounts of Galen tell us how he ran away when Rome was struck by plague should create wariness among scholars about the possibility of migration as not only an indirect but also a direct consequence of epidemics. As such, I wish to encourage future research to focus on direct references to migration in the existing (and possibly new) evidence of plagues in the ancient world.

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¹ The Antonine Plague is believed to have caused at least seven million victims (Harper 2016b, 833; Harper 2017, 18).

² For an overview of the debate on the Crisis of the Third Century, see Liebeschuetz (2015).

³ Every movement, regardless of the direction thereof, of people who change their residence from one place to another on a permanent or semi-permanent basis to evade the Plague of Cyprian and its consequences is considered 'migration' in this study. This definition is based on Tacoma (2017, 30); moreover, the type of movement that is instigated by epidemics can be labeled as involuntary migration because the migrants are compelled to leave their homes by unforeseen forces.

⁴ Migration studies are versatile and include multiple different foci, such as the migration of minorities, the various types of historical evidence for migration and the many motives for migration. See Parker (2009); Foubert (2013); Foubert (2016); Burmeister (2000); Prowse et al. (2007); Killgrove/Montgomery (2016); Moatti (2013); Tacoma (2017); Noy (2000). Motives for migration varied greatly and depended on the social statuses of the migrants. Slaves were taken from their homelands and were shipped to distant lands to serve a master, merchants travelled from place to place to trade and sell their goods, elite women left their parental houses when they were married off and a great amount of people with different social backgrounds from all over the empire moved to Rome because of the many career opportunities and other obvious pull-factors (Moatti 2013; Noy 2000).

⁵ However, the work of Harper cannot be disregarded in a study of plagues in the ancient world, since he is not only one of the most prominent, but also one of the few scholars who has written about the Plague of Cyprian.

⁶ For a prominent study on migration as an agent of pestilence, see McCormick (2003).

⁷ Like Harper (2017, 136), this article aims to repair this neglect by using the Plague of Cyprian as a case study.

⁸ For an elaboration on Roman mortality rates and various helpful graphs, see Shaw (1996).

⁹ For a graph showing dated epitaphs per year between 500 and 699 CE and their corresponding waves of plague, see Benovitz (2014, 498).

¹⁰ Again, scholars (Killgrove 2010, 325) tend to focus on the disease events caused by migrants and not the other way around. Further research is needed to map out the exact amount and directions of migration during plagues.

¹¹ Despite being the most prominent witness of the Plague of Cyprian, Cyprian is anything but the only ancient author writing about the plague. In his article *Pandemics and Passages to Late Antiquity*, Harper lists 23 ancient writers who mention the plague. Amongst these 23 authors, Harper distinguishes six actual eyewitnesses of the Plague of Cyprian. In his more recent 2016 article *Another Eyewitness to the Plague Described by Cyprian*, Harper declares to have found a seventh eyewitness to the Plague of Cyprian. However, none of these authors seem to refer directly to migration caused by the plague.

¹² See Harper (2015, 226) for a dated list of these 23 works.

¹³ In what follows, I will explain why Galen's work may include his flight.

¹⁴ Harper (2015, 241) convincingly argues that the fact that these sermons were preached to a population in the midst of the outbreak should provide some reassurance that Cyprian was not fabricating the symptoms of the disease. See also Scourfield (1996, 14).

¹⁵ For an elaboration on Alexander of Abonoteichus and his cult, see Mazzuca (2004).

¹⁶ The testimonies to which Harper refers are Orosius, *Hist. Adv. Pag.* 7.26.10 and *Excerpta Salmasiana* II (ed. Roberto = FHG 4.151, 598).

¹⁷ Food crises during the Plague of Cyprian are described by Harper (2016b, 806-808; 2016c, 12). Harper does not refer to concrete textual or archaeological sources that indicate the famine. Rather, he seems to base his assumptions about food scarcity on the chain of events during other epidemics in history.

¹⁸ Parallels of violence, raids and rebellions caused by famine throughout history can be found in 2100 BCE Upper Egypt, where the Sepulchers of Ankhthifi reported after years of drought that ‘all of Upper Egypt was dying of hunger, to such a degree that everyone had come to eating his children [...] the entire country had become like a starved grasshopper’, see Prentice (2005, 978). In seventeenth-century West-Central Africa, colonized by the Portuguese, African robberies of Portuguese trading caravans (solely for food) are clear signs of famine (Miller 1982, 24). A final example can be found in nineteenth-century Ireland. During the Great Famine, radical Young Irelanders attempted an armed uprising in 1848, led by William Smith O’Brien. The rebellion eventually became a failure (Kinealy 1997, 28).

¹⁹ Here, ‘resilience’ means the capacity of the empire to endure and recover from disasters such as pandemics. Kyle Harper (2017, 55) defines resilience as: ‘the measure of a society’s capacity to absorb shocks and to fund recovery from injury.’

²⁰ It is important to note that Elliott’s article gives considerably more attention to the ecological aspect of the Antonine Plague than to the violence that followed the epidemic. Elliott places the term ‘ruination’ between quotation marks because he believes that the term carries some ambiguity. According to Elliott, this ruination may be of either a village or men.

²¹ These scholars are L. Robert, L. Fox and R. Stark.