

DOI: <https://doi.org/10.63332/joph.v4i3.4200>

A Study of the Emergence and Spread of the Plague Epidemic in Egypt from the Old Kingdom to the End of the Roman Era

BOUSBIA Amor¹, GHEDIRI Fatiha²

Received: 26/02/2024 Accepted: 23/04/2024 Published: 12/06/2024

Abstract

This study examines the spread of the plague epidemic in Egypt during the Old Kingdom, based on literary sources, which describe the methods adopted by the Egyptians to combat this disease, including the existence of physicians specializing in specific parts of the body, alongside others who focused on seasonal diseases that were not clearly identified, among which the plague is presumed to have been included. Both Herodotus and the Jewish historian Josephus, as well as accounts found in the sacred texts, referred to this epidemic, which affected Egypt, Jerusalem, and parts of North Africa during the Roman period. In terms of archaeological evidence, reports by specialized scientific missions have revealed skeletal remains and ceramic materials associated with a system for the cremation of infected corpses, thus completing the picture of this devastating epidemic, which repeatedly affected the Egyptian kingdom and other regions of the ancient world. Nonetheless, it is noteworthy that the Egyptians managed such epidemics through a healthcare system that allowed them to minimize substantial loss of life.

Keywords: Ancient Egypt, Epidemics, Plague, Physicians, combat

Introduction

If ancient historical sources both literary and material have transmitted to us knowledge of ancient peoples in terms of their living conditions, migrations, wars, and the development of their civilizations, The sources do not only describe migrations, nor do they ignore wars and conflicts; Among these tragedies endured by those human communities were diseases, epidemics, and pandemics that claimed the lives of vast numbers of people. which undoubtedly took the peoples of the ancient world by surprise through their lethal force, rapid spread, and severe impact on both individual and collective health. The Greek historian Herodotus provides accounts of some of these diseases, not only in Egypt but also in various regions of the ancient world. Yet his references to the evolution of medicine in Pharaonic Egypt and to the division of medical practice by parts of the body are especially revealing.

While Herodotus' reference to the plague in Egypt was not explicit in terms of naming it directly, the Jewish historian Josephus was much clearer in his account of the plague in Egypt and Jerusalem, As for the archaeological sources, they have conclusively demonstrated the existence of a series of epidemics, most notably the plague, which struck Egypt during the third century CE, illustrating how the Egyptians dealt with these pandemics through the burning of infected corpses and disinfection with lime.

¹ University of El-oued Algeria, bousbia-omar@univ-eloued.dz

² University of El-oued Algeria, fatiha-ghediri@univ-eloued.dz



On the basis of the foregoing, I deemed it necessary to raise a central question, which serves as the key problem of this article: What were the conditions and circumstances surrounding the emergence of the plague in Egypt from the earliest periods, and how did it develop and persist across Egyptian territories until the Roman era?

The Plague: Origin of the Term and Its Definition

Discussing the development of an epidemic such as the plague in any region of the world, and within any chronological framework, initially leads us to define it, and then to examine the various names given by different peoples around the world to this epidemic disease, which claimed the lives of many during certain periods of human history, Research into this topic also prompts us, at the outset, to examine the various linguistic and terminological definitions that specialists have sought to establish by describing the disease, its characteristics, and its effects on human health.

It has become evident, according to researchers' reports following careful study, scrutiny, and the tracing of the development of this disease, as well as the monitoring of the names attributed to it across different periods and in numerous world languages, that there is no disease that has been defined in such varied and even contradictory ways as the plague, There is no disease that has been affected by the changes of different eras and the diversity of intellectual traditions as this one, nor is there any designation that has been applied with such a degree of consistency and employed by historians, scholars, and poets alike, often in a manner resembling metaphor (A.B.Clot-Bey, 1840, p. 01)

Contemporary scientific encyclopedias, and specialized health organizations, have not differed significantly in defining this disease, focusing on its origin and characteristics, the cause of infection, its modes of transmission, and the extent of its impact and severity, The Larousse encyclopedia defines it as follows: "It is a contagious, chronic, epidemic bacterial disease caused by *Yersinia bacilli*, transmitted to humans via rats through flea bites. One can distinguish between bubonic plague, which is transmitted to humans through flea bites, and pneumonic plague, which is transmitted to humans through inhalation." (<https://www.larousse.fr.>, 2021)

The World Health Organization (WHO) has defined it more concisely: "Plague is a disease caused by a zoonotic bacterium called *Yersinia pestis*, which is typically found in small mammals and the fleas that depend on them." (www.emro.who.int)

Regarding the name of this disease among different peoples of the world, the Hebrews called it (dever), The Greeks called it Lues, As for the Romans, they called it *Morius* the Contagious, The Arabs called it *Kubah* or *Hayubah*, the English called it Plague. The Italians used the word *Peste* or *Pestilenza*, The Spaniards, Portuguese, and Germans adopted a similar term, *Pestilenz*, The Poles called it *Powilra* and As for the French, they gave it several names, such as epidemic fever, *Fièvre adéno-nérvéuse* (glandular nerve fever), *Typhus d'Orient* (Eastern typhus), or *Typhus africain* (African typhus) (A.B.Clot-Bey, 1840, p. 02).

However, the question that arises is: what is the origin of this term? This is a matter that is difficult to determine with precision. Dr. Antoine Buisson addressed this issue in his doctoral dissertation, which was prepared and defended in 2017 at the University of Toulouse in France, he argued that the term (*peste*) referred in ancient times to major epidemics (BOUISSOU, 2017, p. 03).

In this context, we may point to a semantic proximity also conveyed by certain Latin terms such as *pessum* or *pessimum*, *pessumdo*, and *depassendo*, which has led some scholars to favor the likelihood of a Latin origin for this term, while leaving room for other possible origins. that the term *peste* may be derived from the verb meaning "to faint" or "to lose consciousness", or from the word for hunger or famine, which suggests an interpretation of the Greek saying: "After

famine comes the plague” (A.B.Clot-Bey, 1840, p. 02) What is beyond dispute is that this term has, at all times, been associated with the idea of calamity or devastation, and that throughout history it has been chosen as one of the most vivid comparative terms to express the extent of severity and the intensity of its spread (A.B.Clot-Bey, 1840).

In the sacred texts, the terrifying idea associated with this disease appears clearly: it was with this disease that the messenger of the Hebrews threatened Pharaoh, who was oppressing God’s people, and through the plague Jeremiah (Jérémié) instilled fear in the Israelites who intended to return to Egypt (Société de médecins et de chirurgiens, 1820, p. 84), The Roman orator and statesman Cicero referred to Catilina as “the plague of the Republic” , reflecting his belief in the severe threat Catiline represented to the state (Maucroix, 1710, p. 51).

The Evolution of the Spread of the Plague in Ancient Egypt Through Literary Sources:

Anyone who studies the writings of the ancients, as well as what the sacred scriptures have conveyed to us, realizes that the plague was in fact an ancient disease in Egypt old the Nile itself and as old as the presence of the earliest Egyptians along its banks (Guyon, 1855, p. 116), This is further reinforced by what Herodotus reported during his travels to Egypt, when he referred to the diseases that struck the inland regions of Egypt (the desert frontiers) (Maucroix, 1710, p. 51), This is the disease or the plague to which Herodotus referred when he stated that in Egypt there were physicians for each part of the body (Maucroix, 1710, p. 117) explaining that in Egypt a physician treated only one type of disease, rather than all diseases, Some physicians treated diseases of the eyes, others treated the head, others the teeth, while still others specialized in ailments of the abdomen and the parts adjacent to it (Hérodote, 1850, II, LXXXIV).

Herodotus also mentions that there were physicians for unknown diseases, and that the plague was among those unknown illnesses, which were referred to as sacred diseases, and notes that these physicians were specialized in particular seasonal diseases that occurred at specific times of the year, so as to mitigate their harmful impact on both people and animals, The people of Egypt intensified their hygiene measures, particularly the king and the priests, who during such times subsisted solely on wild pigeons this was considered a food that protected against those seasonal or periodic diseases (Guyon, 1855, p. 117).

The plague is mentioned in the sacred texts of Egypt and neighboring countries (Exodus.ch V, vres 3), Thus, the plague, or the genuine plague, was a historical reality in Egypt during the time of Prophet Moses (Guyon, 1855, pp. 117-118), the plague in Jerusalem occurred under the rule of Sennacherib (Flavius, 1938, X,5), the plague in Judah occurred under the rule of Herod, Similarly, in Josephus’ response to Appion regarding the exodus of the Jews from Egypt, the text states: 'After they traveled for six days, Appion said they suffered from ulcers in the upper thigh, but on the seventh day they regained their health. When they reached the kingdom of Judah, they named this illness "Sabbat" because the Egyptians used to call it "Sobatisme", However, Josephus opposed that view regarding the origin of the word 'Sabbat' with several arguments, attempting to show that in reality there was in Egypt at that time a disease called 'Sabo,' and that this word was naturally associated with the concept of illness and plague, meaning pain in the upper thigh. His words in the text are as follows: 'As for the crude argument presented by Appion concerning the word Sabbat, it can only be described as ignorance and madness, because there is a great difference between Sabbo and Sabbaton. In Hebrew, Sabbaton means rest, whereas Sabo, according to this writer, in Egyptian signifies pain in the upper thigh (Guyon, 1855, p. 118).

The plague or Laemos according to the Greeks, originates from Egypt; it has been present there at all times. This is reflected in the remarkable story of Typhon and Horus, who fought relentlessly throughout the year. Typhon ultimately defeated Horus, the son of Isis, who remained

vanquished until the return of the Etesian winds (Les élésiens), the northern winds, during their pause. When the southern winds, which bring diseases, blew, Typhon was defeated and took refuge in Lake Syrbon, located near Pelusium (Péluse), which was called Exhalaisous Méphitique, or "the monster's Zephyr" (Guyon, 1855, p. 118).

Hence, the Nile is considered the cradle or the sole origin of the plague, and according to this view, it did not appear outside this land except through infection and transmission from it. This explains the persistent occurrence of the disease in North Africa. This opinion, however, contrasts with the view that was eventually established at the Academy of Medicine in Paris (in the 1840s). North Africa, therefore, was no less affected by the plague than Egypt; in ancient times, the region was continuously subjected to devastating outbreaks of the disease. This can be attributed to the relations between the two lands, particularly considering their geographic proximity and fraternal ties, especially in the period following the founding of Carthage (Guyon, 1855, pp. 118-119).

Following the path of the physician and philosopher specializing in epidemics, Jérôme Fracastor (1478–1553), as well as other authors such as Papon and Ozanam, who acknowledged that an epidemic appeared in Africa in 118 B.C., Fracastor alone differed regarding the date of the disease's emergence. He seemingly mistakenly indicated the year 125 B.C. as the time of the outbreak, or more precisely, of the pandemic (Fracastor, 1893, p. 129)

This pandemic also spread throughout the Roman Empire in 250 A.D., (the 1003rd year since the founding of Rome), during the reign of Emperor Decius, the epidemic did not intensify significantly for two years, until 252 A.D., under Emperor Gallus, a period during which it caused considerable human losses, particularly in Egypt. As a sixth-century writer and chronicler, Jornandus describes this pandemic in the following terms: 'In that period (i.e., 252 A.D.), an epidemic emerged no less severe than the one that had struck our lands nine years earlier, plunging the entire world into sorrow and inflicting unimaginable losses in Alexandria and throughout Egypt. The epidemic even reached the imperial palace and, within a few days, caused the death of many individuals, including the emperor's adopted son, Hostilian (Guyon, 1855, p. 129).

By the end of the fourth century A.D., Africa, along with the other parts of the world known at that time, had become the scene of a deadly disease. This is mentioned in the Ecclesiastical History (*Histoire de l'Église*) by Philostorgius, a work that has survived only in an abridged version compiled by Photius, the Patriarch of Constantinople. In this context, Philostorgius recounts that in his time a devastating plague appeared, far more lethal than previous diseases. Its advent was foretold by the appearance of a star or a comet in the shape of a sword. Indeed, no such general calamity had ever been witnessed before, for never had so many people perished in Europe as under those circumstances, and likewise in Asia and Africa (Philostorge, N.d , p. 325) As for the star regarded by the ancients as an omen of the outbreak of the epidemic, it was, in fact, a comet. Photius provides information about it, which we believe can be reformulated. According to Philostorgius, Photius recounts the following: 'After the defeat of Maximus,' writes this author, 'and at the time when Theodosius returned to Rome and was preparing to depart, a new and extraordinary star appeared in the sky, threatening the world with catastrophic evils. It began to appear around midnight, near the planet Venus, approaching it in size and brilliance. The lesser stars then seemed to gather around it, almost as bees gather around their queen. (Guyon, 1855, p. 129)

The Plague in Ancient Egypt through Archaeological Evidence:

In Egypt, a team of archaeologists discovered remains indicating a plague epidemic that was particularly deadly. The presence of bones and pottery attests to the use of a system for the cremation of infected bodies. An archaeological team from an Italian mission in the Luxor region uncovered evidence of a plague outbreak that suddenly emerged between 250 and 271 A.D. During this period, Egypt was struck by a series of epidemics, at a time when the country was under Roman occupation. Numerous handcrafted materials, as well as bones subjected to carbon dating, have demonstrated the use of facilities for the cremation of the bodies of victims who were confirmed to have been infected by this epidemic (Lambert, 2014).

During work inside the tomb of Harwa on the west bank of the ancient city of Thebes (present-day Luxor) in Egypt, archaeologists discovered bones covered with a thick layer of lime. It appears that since antiquity this white substance was used in construction activities, but it was also employed as a disinfectant. Researchers identified three kilns for the production of lime, as well as the remains of a large pyre containing numerous fragments of burned human bodies (Lambert, 2014).

The pottery fragments discovered in these kilns allowed researchers to date the event, which is believed to have occurred in the third century A.D. During this period, the Roman Empire, which had previously established its dominance over Egypt, was afflicted by a series of epidemics. Today, these are referred to as the 'Cyprian Plague' (La peste cyprienne), named after Saint Cyprian, who served as the bishop of Carthage (Barthélémy, 2014).

He wrote about this epidemic, describing it as a sign of the end of the world. According to the book of "Deaths", written in Latin by this saint, the victims of the plague died after tremendous suffering: their intestines convulsed violently from continuous vomiting, their eyes appeared as if ablaze with blood, and in some cases recounted by the saint, parts of the body, such as the feet and other extremities, became detached due to gangrene caused by the disease (Lambert, 2014). The plague was devastating, claiming the lives of more than 5,000 people in a single day in Rome, as noted by Francesco Teraditti, director of the Italian Archaeological Mission in Luxor (MAIL), in the *Journal of Egyptian Archaeology*. Archaeologists, through carbon-dated bones between 1997 and 2012, discovered that the memorial monument containing the crematorium was built in the 7th century BCE for an Egyptian dignitary who served as a treasurer, named Harwa. At that time, the building was used solely as a funerary complex. However, the structure was completely abandoned after serving this role during the horrific plague and was never used again by the Egyptians. Francesco wrote that using the complex to cremate plague victims gave the monument a notorious reputation, condemning it to centuries of obscurity until tomb robbers entered the complex in the early 19th century CE (Barthélémy, 2014).

The power of this plague cannot, in any case, be denied. Modern scholars believe it may have been a form of smallpox or measles, although there is no conclusive evidence to support this, despite the fact that the human bone remains associated with this plague represent new material that warrants further investigation. Francesco Teraditti warned that his team would not be able to extract DNA and thus identify the strain of this infectious disease. Live Science reported him stating that, in a climate such as Egypt's, DNA is completely destroyed. He also added that the city of Thebes is a vast archaeological site that is likely to hold many surprises. Thanks to the excavations carried out by the MAIL mission, the new data regarding Harwa's funerary complex have provided additional insights into the development of this major city during the 7th century BCE (Lambert, 2014).

The Role of Deities in the Emergence and Spread of Epidemics: The Goddess Sekhmet in Ancient Egypt as a Case Study:

Ancient Egyptian sources addressed the subject of deities and their relation to the spread of diseases and epidemics, often portraying such outbreaks as a form of punishment inflicted upon those who incurred their wrath, within the broader context of the deities' role in the lives of the Egyptians. Moreover, ancient sources particularly Greek and Roman documented events related to epidemics and other infectious diseases. The question that arises, however, is: what role is attributed to the gods in these phenomena?

In societies that adhere to polytheism, where humans and gods coexist on the same land in daily interaction, it is not surprising to often find a close connection between deities and the epidemics that afflict people. However, this relationship appears complex, as the same deities can be simultaneously responsible for causing disease and for curing it. In this discussion, we will examine a specific example illustrating this phenomenon: the lion-headed goddess Sekhmet in Egypt, as well as another example of domestication—the god Resheph in the Levant, a deity whose traces can even be found in the Bible. Observing both the malevolent and healing aspects of these deities may seem surprising, even shocking, particularly within the Judeo-Christian tradition, where God and disease do not necessarily coexist side by side, especially since the modern era (Nihan, 2020).

The goddess Sekhmet in Egypt is typically depicted as a woman with the head of a lioness, immediately emphasizing her powerful and dangerous nature. This idea is also reflected in her name, Sekhmet, which in the Egyptian language means “the mighty one in the curse.” Numerous texts and images portray her as a threatening deity, even to other gods, whose wrath causes many evils, including diseases (Schwartzel, 2017)

Among the manifestations of Sekhmet's wrath, according to the texts, is fire that unleashes suffocating heat, followed by a whole series of calamities. One ritual describes her anger with the words: “O Sekhmet of the flame... inspire the gods to fear you, your pestilence spreads throughout the Two Lands (Egypt) and upon all humans, consuming blood.” Some sources also indicate that she can be regarded as one of the primary agents of destruction sent to humanity, particularly when she is referred to as the “Eye of Ra,” a name attributed to her when she is sent by the sun god Ra for the purpose of destroying evil (Nihan, 2020).

While the goddess Sekhmet could transmit diseases at any time of the year, the Egyptians were particularly wary of her activity during transitional periods, such as the passage from day to night, on “weekend” days (in reality, during the ten-day periods), or during the change of seasons from one year to another. These transitions were regarded as critical moments that could potentially jeopardize the cosmic order established by the gods and maintained by the pharaoh through various rituals (Schwartzel, 2017).

There are several types of agents associated with the goddess Sekhmet, including those depicted holding knives in their hands, those presented as “wanderers,” or those referred to by the name of Sekhmet herself. Nevertheless, the common denominator among them is that they appear as dangerous forces, potentially malevolent toward humans. As is the case with other ancient polytheistic systems, the destructive power of the deity operates alongside the multitude of evil beings that surround her (Nihan, 2020).

Conclusion:

In conclusion, it can be stated that, based on historical and literary sources, plague appeared in Egypt as early as the Old Kingdom period. According to these sources, the Egyptian lands, particularly the banks of the Nile, are considered the place of origin of this epidemic, from which

the infection spread to other regions of the world, especially neighboring areas such as North Africa. Here, the role of sacred texts is noteworthy, particularly when their information aligns with the writings of ancient historians. Archaeological missions have been decisive in confirming the occurrence of epidemics specifically the plague—in Egypt, which resulted in large numbers of deaths. These sources also provide important insights into the sophisticated methods employed by the Egyptians in dealing with the epidemic, particularly regarding how to avoid infection, protect against it, and cleanse affected areas. This included the disposal of plague-infected corpses through cremation and the use of lime to eradicate the remains of the disease, thereby ensuring a clean and healthy environment.

References

- A.B.Clout-Bey, F. (1840). *On the Plague Observed in Egypt: Research and Consideration of This Disease (De la Peste observée en Egypte: Recherche et considération sur cette maladie)*. Paris: Fortin, Maison & Co., Printers and Booksellers-Publishers (Fortin, Maison et C. Imprimerie Libraires-Editeurs).
- Barthélémy, P. (2014, 6 19). *Archéologie: Traces of an ancient epidemic discovered in Egypt (Archéologie: les traces d'une épidémie antique découvertes en Egypte)*. Retrieved from [sur Lemonde.fr: https://www.lemonde.fr/passeurdesciences/article/2014/06/19/archeologie-les-traces-d-une-epidemie-antique-decouvertes-en-egypte_5999056_5470970.html](https://www.lemonde.fr/passeurdesciences/article/2014/06/19/archeologie-les-traces-d-une-epidemie-antique-decouvertes-en-egypte_5999056_5470970.html)
- BOUISSOU, A. (2017). *Evolution of Western medicine through the prism of the second plague pandemic from 1346 to 1898 Doctoral thesis (Evolution de médecine occidentale à travers le prisme de la deuxième épidémie de peste de 1346 à 1898. Thèse de Doctorat.-. Toulouse: University of Toulouse III,*
- Exodus*. (N.D). Retrieved from Ancien Testament: <https://www.bibliques.com/b/02exo/5.php>
- Flavius., J. (1938). *Complete Works (Oevres completes) (J. Buchon, Trans.)*. Retrieved from Site de Philippe Remacle L'Antiquité Grec et Latine du moyen age: remacle.org/bloodwolf/historiens/Flajose/juda10.htm Retrieved September 9, 2021,
- Fracastor, J. (1893). *On Contagions and Contagious Diseases (De contagionibus et contagiosis morbis)*, Trs M.Cousin. Paris: Scientific Publishing Company (société d'éditions scientifiques).
- Guyon, J.-L.-G. (1855). *Chronological history of epidemics in North Africa (Histoire chronologique des épidémies du Nord de l'Afrique)*. Algiers (Alger): Government Printing Office (Imprimerie du Gouvernement).
- Hérodote. (1850). *History (Histoire) (P. Larcher, Trans.)*. Paris: Charpentier, Publisher-Bookseller (Charpentier-Editeur-Libraire).
- <https://www.larousse.fr>. (2021, 07 09). Retrieved from <https://www.larousse.fr/dictionnaires/francais/peste/59901>
- Lambert, M. (2014, 6 18). *published on Maxiscience.com*. Retrieved from Gentside The remains of a devastating plague epidemic discovered in Egypt.
- Maucroix, M. (1710). *A Translation of Cicero's Orations Against Catiline (Traduction des Oraisons de Cicéron contre Catilina)*. Paris: Government Printing Office (Imprimerie de Gouvernement).
- Nihan, G. (2020, 6 23). *The Role of Deities in Ancient Epidemics: The Goddess Sekhmet in Egypt and the God Resheph in the Levant (Le rôle des Dieux dans les épidémies antiques : à propos de la déesse Sekhmet en Egypte et du Dieu Resheph dans le Levant-Viral)*. Retrieved from unil.ch.

Schwentzel, C.-G. (2017, 12 8). *Why the Egyptian Sekhmet, Lioness Goddess and Feline Woman, Fascinates Us So Much (Pourquoi l'Egyptienne Sekhmet, déesse lionne et femme féline, nous fascine autant)*. Retrieved from Le Monde: https://www.lemonde.fr/afrique/article/2017/12/08/pourquoi-l-egyptienne-sekhmet-deesse-lionne-et-femme-feline-nous-fascine-autant_5226863_3212.html

Philostorge. (n.d.). *History of the Church*. (Trans : M.Cousin) Paris: Emien Foucaut, Printer and Abridged Bookseller.