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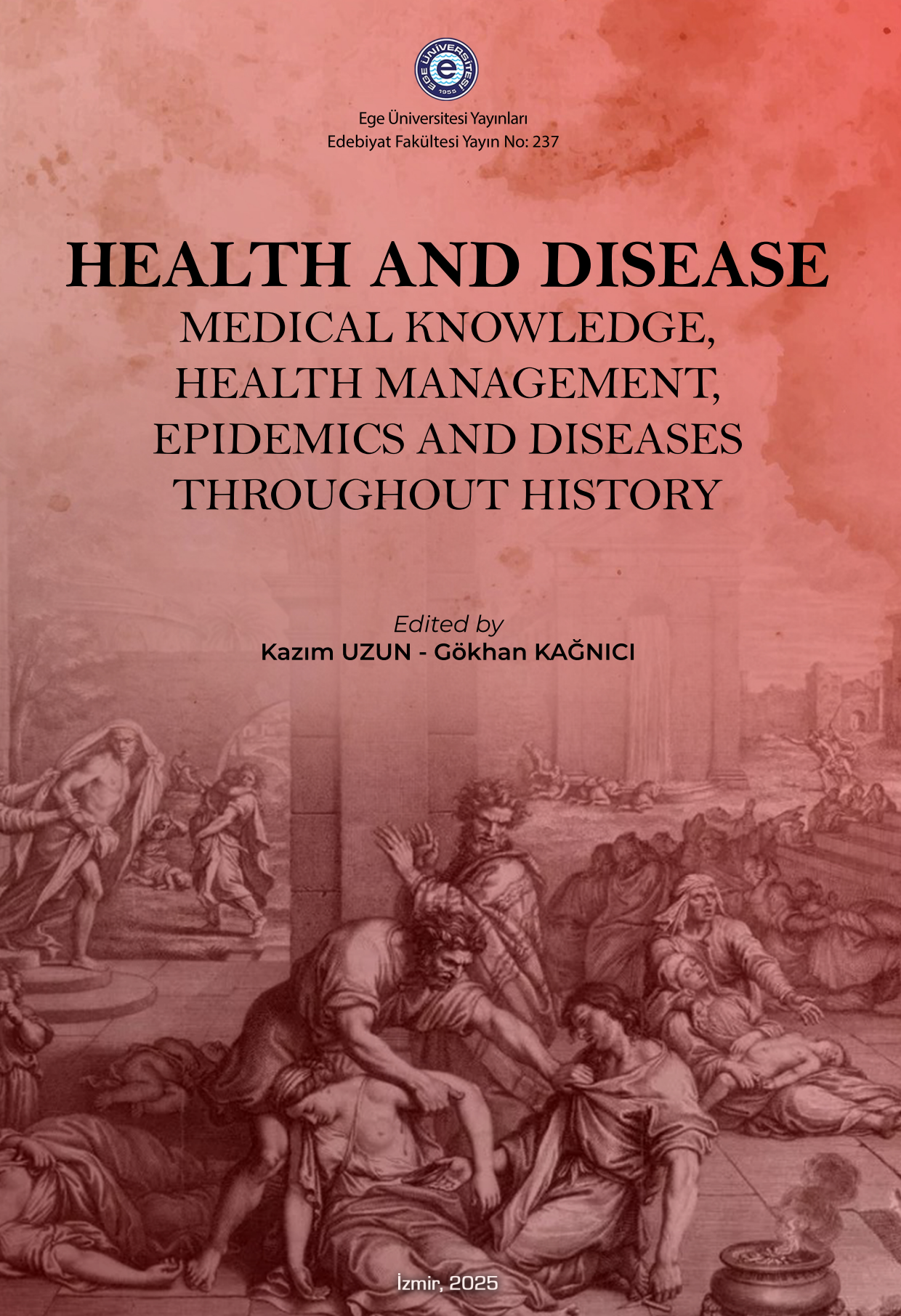
HEALTH AND DISEASE

MEDICAL KNOWLEDGE, HEALTH MANAGEMENT, EPIDEMICS AND DISEASES THROUGHOUT HISTORY

Edited by
Kazım UZUN - Gökhan KAĞNICI



İzmir, 2025

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Preface

The history of health and disease has emerged as one of the most dynamic and interdisciplinary fields in contemporary historiography. Examining how societies have conceptualized, experienced, and managed illness reveals not only the medical practices of the past but also the systems of knowledge, social structures, and political orders that made those practices possible. Under the title Health and Disease: Medical Knowledge, Health Management, Epidemics and Diseases Throughout History, this volume brings together ten original studies that explore the production, transmission, and institutionalization of medical knowledge across a wide temporal spectrum—from antiquity to the modern era. The articles included in the volume aim to discuss the phenomenon of health and disease within cultural, social, and intellectual contexts, drawing on evidence from different regions and historical periods.

The intellectual foundation of this work stems from a shared conviction: that medicine should not be viewed merely as a technical discipline following a linear path of progress, but rather as a cultural phenomenon deeply rooted in its historical contexts. Prepared with contributions from scholars specializing in various periods, this collection seeks to demonstrate how medical knowledge has been shaped not only by physicians or institutions but also through relations of power, religious conceptions, economic structures, and social norms. Each study is grounded in original archival or textual material while also engaging with broader questions concerning the interplay between health, authority, and society.

Together, these contributions invite readers to reflect on the multifaceted nature of medicine—as an evolving body of knowledge and as a mirror reflecting the intellectual and moral concerns of past civilizations. By situating disease and healing practices within their respective epistemic and cultural frameworks, the volume offers a nuanced

understanding of how human societies have continuously negotiated the boundaries between body, knowledge, and power

Although the volume spans a broad chronological range from antiquity to the m odern era, this breadth is not reduced to a merely superficial chronology. Rather, each period is approached through its own epistemological questions, forms of knowledge, and configurations of authority. In this way the history of medicine is read not simply as a progressive accumulation of facts, but as the stage upon which distinct—and often interacting—regimes of knowledge emerge in different civilizations. This vantage point enables a rich diversity of source-materials, from the cuneiform archives of the ancient Near East and the Ottoman medical corpus to classical Greek thought and modern epidemiology.

The contributors bring together methodologies located at the intersection of history, philology, philosophy, and the social sciences, demonstrating that the history of health and disease is inherently polyphonic. For this reason, the volume makes a substantive contribution to the field of medical humanities, aiming to bridge close textual scholarship, social history, and the history of science. By combining philological rigor with broad contextual analysis, the essays collectively show how medical knowledge has been produced, legitimized, and circulated within complex social and political milieus.

The value of this book lies not only in the originality of the empirical material it presents but also in the questions it poses for the contemporary world. In an era shaped by pandemics, biomedical uncertainty, and global health inequalities, re-reading the history of health from a longue durée perspective can foster both a modest historical awareness and a deeper interpretive grasp. The struggles, innovations, and failures of past societies remind us that health is not only a biological condition but also a cultural and political construction. As editors, we regard the strength of Health and Disease: Medical Knowledge, Health

Management, Epidemics and Diseases Throughout History to reside in the diversity of its themes and the originality of each contribution. Individually, the chapters advance the literature on med ical history; taken together, they form a coherent, holistic narrative that traces continuities between ancient therapeutic traditions and modern public-health paradigms. It is our hope that this volume will inspire further research into the complex intersections of body, knowledge, and power.

Kazım Uzun & Gökhan Kağnıcı

İzmir, 2025

Medical Discourse and Politics in Thucydides: The Athenian Plague, Pericles' Strategy, and the Shaping of Historical Narrative

Sinan PAKSOY[*]

Abstract

The clinical methods and concepts expressed in the medical texts of the Classical Greek World influenced Thucydides' historiographical style and served as a source for the political ideology he adopted when addressing social events. Thucydides' accounts of the plague outbreak that emerged in Athens at the beginning of the Peloponnesian War (431-404 BC) and the effects of the epidemic on the course of the war provide insight into the sources of his political thought and historical methodology. The interpretations and descriptions that Thucydides made regarding the nature, origin, and political/social consequences of the epidemic, particularly based on medical concepts and expressions found in ancient texts, reflect his critical historiography. However, this approach, informed by sophistical thinking that places human nature at the centre and shapes his style and methodology, exposes his political bias when recounting historical events, thus compromising his claims to objective narration. This study examines not only the depiction of the plague epidemic by reference to concepts and definitions found in Hippocratic texts, but also Thucydides' historiographical methodology, which derives from the Classical Greek literary tradition, regarding the transformation of the epidemic into social catastrophe (anomia). In particular, sophistical philosophy, which shaped political thought in 5th-century BC Athens, formed the foundation for Thucydides' political views on the sources of power and authority. Additionally, the political discourses aiming at securing acceptance of the Athenian Empire's existence in the Hellenic world lies this ideology of dominance, which manifests itself in Thucydides' political rhetoric and is grounded in natural laws. In this context, the concepts found in Hippocratic medical texts and the clinical methods applied for treatment based on these concepts, in parallel with sophistical thought that centres human nature in the interpretation of political events, can be traced in Thucydides' historical method and narrative style. In this regard, the relationship between the epidemic in Athens and Pericles' defensive

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strategy in the Peloponnesian War is of great importance in understanding the physical conditions that laid the groundwork for the epidemic's spread and the massive losses it caused. Therefore, this study primarily examines the effect of Pericles' defence policy on the epidemic's devastating consequences, taking into consideration Thucydides' texts on Athens' war strategy and the plague epidemic. Through analysis of historical sources documenting the representation of epidemic disaster and plague motifs in Classical Athenian literature and collective memory, this study provides a more nuanced historical perspective on how the Athenian plague influenced Thucydides' historiography of the Peloponnesian War.

Keywords: Thucydides, The Plague of Athens, The Peloponnesian War, Pericles, Historiography

I. Introduction: Thucydides' Accounts of the Plague in Athens and the Influence of the Hippocratic Method on Thucydides' Historiography

The Athenian Statesman and Historian Thucydides, in the second book of his work "History of the Peloponnesian War," following Pericles' Funeral Oration[1], discusses the outbreak of the plague in Athens and the devastating social effects of this disaster[2]. As is well known, the influences of sophistic and sceptical philosophical thought in the Classical Greek world of the 5th century BC, as well as scientific thought regarding the nature, can be seen in Thucydides' historical methodology and narrative technique[3]. Indeed, Thucydides states that he will explain the characteristics of the plague in Athens so that no one will remain ignorant about the nature of this disease should it occur again[4]. This approach and narrative technique of Thucydides recalls the style of Herodotus' work *Historiai*, in which he treated historical events in an objective and realistic manner. The symptoms of the disease and the physical factors that caused it to spread rapidly in epidemic form, leading to great loss of life, are described in detail in Thucydides' texts[5]. According to this account, the effect of the rapidly contagious plague became much more deadly due to the unhealthy conditions caused by the

[1] Thucydides II 35-46.
[2] Thucydides II 47-54.
[3] Stefanovski, M.; Čavoški, K., 2023, "Polis, Loimos, Stasis: Thucydides about Disintegration of the Political System", *Conatus, Journal of Philosophy*, 8/2, 640.
[4] Thucydides II 48.3; Allison, J. W., 1983, "Pericles' Policy and the Plague", *Historia: Zeitschrift für Alte Geschichte,* (1st Qtr.), 32/1, 14.
[5] Thucydides II 47-52; Couch, H. N., 1935, "Some Political Implications of the Athenian Plague", *Transactions and Proceedings of the American Philological Association*, 66, 92-93.

concentration of Attic refugees from rural areas in the city centre and the high number of casualties among the physicians who intervened to treat the disease[6].

From the medical concepts and terms that Thucydides used when describing the Athenian plague and the effects of the epidemic, it is understood that he was familiar with the written works of the Hippocratic School of Medicine[7]. The general similarity between Hippocrates' works *Epidemics* and *Prognostic* and the sections where Thucydides described the plague epidemic is remarkable[8]. According to this, Thucydides describes the epidemic that Hippocrates called *katastasis*, observing the situation of the epidemic without making personal commentary; he reports that the patient entered a crisis on the seventh and ninth days of the disease; later, Thucydides concludes the course of the epidemic with a description of the symptoms that occurred after cases in which the patient survived the crisis[9]. According to D. L. Page, Thucydides' account of the Athenian plague epidemic bears the characteristics of the *prognostic* medical approach that is based on predicting the course of the disease and its response to treatment, rather than Hippocrates' *diagnosis* and disease classification[10]. According to this Hippocratic approach, the purpose of complete medical observation and recording is *prognosis*, that is, to understand the course of the disease that the symptoms follow, to know in advance the development of the disease from beginning to end[11]. Only in this way can a physician determine which disease can be treated. Moreover, this medical approach is based on strengthening the patient's resistance in order to predict developments in the treatment of the disease, and for this purpose, ensuring that the patient improves day by day[12]. In this regard, Page draws attention to the similarity between the purpose of Thucydides' description of the Athenian plague and the paragraphs at the beginning of Hippocrates' work *Prognostic*[13]. In addition, Woodman states that the source of the expressions and references that Thucydides used in describing the plague epidemic was ancient medical literature[14]. He emphasizes that both the use of medical terms and the general description of the epidemic are as explanatory and detailed as could be written by someone familiar with medical

[6] Thucydides II 52; II 47; Couch, "Some Political Implications", 92-93.
[7] Page, D. L., 1953, "Thucydides' Description of the Great Plague at Athens", *The Classical Quarterly,* (Jul. - Oct., 1953), Vol: 3, No:3/4, 98.
[8] Couch, "Some Political Implications", 103; Page, "Thucydides' Description", 98; Woodman, A. J., 1988, *Rhetoric in Classical Historiography, Four Studies*, Routledge, Taylor & Francis Group, London and New York, 38-39; Bruzzone, R., 2017, "Polemos, Pathemata, and Plague: Thucydides' Narrative and the Tradition of Upheaval", *Greek, Roman, and Byzantine Studies*, 57, 883.
[9] Page, "Thucydides' Description", 98.
[10] Page, "Thucydides' Description", 98; Hippocrates, *Prognosticon* I.
[11] Page, "Thucydides' Description", 98; Hippocrates, *Prognosticon* I.
[12] Page, "Thucydides' Description", 98; Hippocrates, *Prognosticon* I.
[13] Page 1953, 98.
[14] Woodman, *Rhetoric in Classical Historiography*, 38.

texts[15]. His account of the day-to-day course of the disease, especially his indirect references to the "critical stage," shows great similarities with Hippocrates' work known as *Epidemics*[16].

In this respect, Thucydides' descriptions of the Athenian plague epidemic are considered one of the most important examples of 'scientific historiography' due to the similarities they show with Hippocrates' works *Prognostic* and *Epidemics*. A. W. Gomme thinks that the sections where Thucydides described the plague symptoms in detail constitute a deviation from the main subject of the 'History of the Peloponnesian War' because they have limited relationship with military and political events[17]. However, according to Gomme, Thucydides approaches the subject from a scientific perspective by relating the plague epidemic as a historical phenomenon to military and political developments[18]. Woodman, on the other hand, compares Thucydides' descriptions of the epidemic with similar depictions by Lucretius, arguing that both authors exhibit a literary-rhetorical approach to the subject[19]. Nevertheless, while adopting a literary-rhetorical narrative style, Thucydides described the epidemic with appropriate medical terminology by drawing from Hippocratic medical literature and approached the subject from a scientific perspective[20].

II. The Literary Origins of Thucydides' Historiographic Method and Rhetoric

In the first book of Thucydides' work "History of the Peloponnesian War," the Athenian plague epidemic is treated alongside other disasters that accompanied the war and occurred in mainland Greece (earthquakes, drought, famine) and natural events seen as harbingers of disaster (solar eclipse)[21]. The author presents this series of disasters as tragic elements that reinforce the uniquely violent character of the Peloponnesian War by positioning them after his explanation of historiographic methodology[22] and immediately before proceeding to the political-military events of the war[23]. Thucydides' methodological approach and narrative style regarding this series of disasters (*pathemata*) show parallels with the Classical Greek literary tradition extending

[15] Woodman, *Rhetoric in Classical Historiography*, 38.
[16] Thucydides II 49; Hippocrates, *De morbis popularibus*, I, III; Woodman, *Rhetoric in Classical Historiography*, 38-39.
[17] Gomme, A. W., 1956, *A Historical Commentary on Thucydides*, Vol. 2, Clarendon Press, Oxford, 161.
[18] Gomme, *A Historical Commentary on Thucydides,* 161.
[19] Woodman, *Rhetoric in Classical Historiography*, 39.
[20] Woodman, *Rhetoric in Classical Historiography*, 39.
[21] Thucydides I 23.
[22] Thucydides I 22.
[23] Bruzzone, "Polemos, Pathemata, and Plague", 883.

from Homer's epic poems to Hesiod's didactic works and Sophocles' tragedies[24]. L. Kallet states that the tragedy writers who were contemporaries of Thucydides associated the plague epidemic with Apollo[25]. In Homer's Iliad (1.61), Hesiod's Works and Days (242), and Sophocles' tragedy Oedipus Tyrannus, the plague epidemic is treated as a divine punishment sent by Apollo. T. E. Morgan similarly argues that a Greek reading Thucydides' work would draw literary parallels between the descriptions of the Athenian epidemic and the mythological narrative style in the Iliad and Oedipus tragedy[26]. In the Iliad, the plague epidemic that the god Apollo sent as divine punishment to the Achaean camp is depicted as a disaster of such magnitude that, together with war, it would bring them to submission[27]. On the other hand, the idea that people's unjust decisions and murderous, dishonourable behaviours will meet with divine punishment is also narrated in a didactic style in Hesiod's work *Works and Days*[28]. According to this, the city of people who make correct decisions and do not deviate from justice prospers and achieves welfare; Zeus the Son of Kronos, the Wise, never afflicts them with the cruel disaster of war[29]. But Zeus the Son of Kronos, the Wise, deems punishment fitting for those who practice tyranny and cruelty[30]. Indeed, often an entire city suffers because of a single man who devises and commits insolent acts, and Zeus the Son of Kronos brings great calamity upon this people along with famine and plague epidemic[31]. And at another time, Zeus the Son of Kronos either destroys their great armies or the walls of their cities or brings an end to their ships at sea[32]. Hesiod's texts indicate the existence of a walled city-state, that is, a polis, in the Aegean and Greek world in the 7th century BC. These texts also indirectly express that the unjust decisions and actions of rulers (*arkhontes*) are punished by Zeus. Thus, it is emphasized that the correctness of rulers' behaviour has a decisive effect on the fate of the entire polis. Another important point in Hesiod's work is that when Zeus punishes an unjust city population, the disasters of famine, war, and epidemic appear one after another or together. Similarly, in Aeschylus' tragedy *Supplices*, war and plague disaster

[24] Woodman, *Rhetoric in Classical Historiography,* 32; Bruzzone, "Polemos, Pathemata, and Plague", 884; Kallet, L., 2013, "Thucydides, Apollo, the Plague, and the War", *The American Journal of Philology*, 134/3, 361; Stefanovski and Čavoški, "Polis, Loimos, Stasis", 635; Kousoulis, A. A.; Economopoulos, K. P.; Poulakou-Rebelakou, E.; Androutsos, G.; Tsiodras, S., 2012, "The Plague of Thebes, a Historical Epidemic in Sophocles' Oedipus Rex", *Emerging Infectious Diseases*, 18/1, 153-157.

[25] Kallet, "Thucydides, Apollo, the Plague, and the War", 361.

[26] Morgan, T. E., 1994, "Plague or Poetry? Thucydides on the Epidemic at Athens", *Transactions of the American Philological Association*, 124, 206.

[27] Homer. I 61.

[28] Hesiod. 210-220.

[29] Hesiod. 225-230.

[30] Hesiod. 238-240.

[31] Hesiod. 240-245.

[32] Hesiod. 245-250.

are mentioned together. The daughters of Danaus (Danaides), who are the heroes of the work, had fled from Aegyptus, the twin brother of King Danaus of Argos, and taken refuge in the city of Argos[33]. Saved with the support of Pelasgus and the people of Argos, the daughters of Danaus pray that the city of Argos where they took refuge be saved from war and plague epidemic, and be in peace and abundance[34].

As can be understood from the verses of Homer and Hesiod as well as from Classical Greek tragedy works, the consideration of war and plague as divine punishment for humanity's dishonourable and unjust behaviours, and the accompaniment of plague epidemics to other great disasters including war, had been treated as a common theme in many literary genres until Thucydides' time. This rhetorical-literary style was reflected in Thucydides' narratives, particularly regarding the social effects of the epidemic. In addition to the medical description of the plague epidemic, Thucydides records that appeals to temples and oracles to protect against disease and epidemic disaster were in vain[35]. Following these statements, after describing the symptoms of the disease and the development of the epidemic using the Hippocratic medical method, Thucydides presents both individual and social devastating effects of the epidemic in a style reminiscent of Classical tragedy works[36]. For this reason, Thucydides' comments, particularly about the transformation of the plague epidemic into social collapse, recall the rich Classical Greek literary tradition in which multiple disasters strike a society simultaneously[37]. Indeed, according to A. J. Woodman, Thucydides' emphasis on the magnitude of losses and social collapse in his descriptions of the plague epidemic reveals that he too, like Homer, constructed a powerful "disaster narrative"[38]. Although Thucydides' comments about the multiple disasters (*pathemata*) that cause social upheaval continue this literary tradition in terms of style and narrative, the author does not explicitly state that Apollo's wrath caused these disasters. Instead, drawing inspiration from the Homeric epic tradition and Classical tragedy scenes, Thucydides describes the plague epidemic as a complement to the catastrophic scene created by war and other natural disasters (earthquakes, famine, solar eclipse). Although the author explains the Peloponnesian War through rational causes[39], he indirectly speaks of the influence of divine will on the course of the war in the first and second books of his work[40]. According to this, the fundamental cause of the Peloponnesian War is

[33] Aeschylus, *Supplices* 1-39.
[34] Aeschylus, *Supplices* 659-662; 678-687.
[35] Thucydides II 47.
[36] Thucydides II 52-53.
[37] Bruzzone, "Polemos, Pathemata, and Plague", 884.
[38] Woodman, *Rhetoric in Classical Historiography*, 30.
[39] Thucydides I 23-56.
[40] Thucydides I 118; II 54.

seen as Athens' increasing dominance in the Greek world after the Persian Wars (*Pentecontaetia*), particularly the "Panhellenic" policy initiated by Archon Themistocles and continued by Pericles[41]. While these geopolitical developments are seen as the real cause of the war, Thucydides makes veiled references to the divine intervention of the God Apollo, who supported the Spartans against the Athenians[42]. Moreover, Thucydides' narrative about the prophecy concerning the Pelargicon Sacred Area more clearly reveals his attitude in evaluating the plague epidemic as divine punishment. As a result of the evacuation of the Attic countryside due to war and the influx of rural population to the city, sacred areas in the city, including Pelargicon, were opened to settlement[43]. However, settling in this sacred area was forbidden under penalty of curse. Stating that the verses of the Delphic oracle about Pelargicon had come true contrary to expectations, Thucydides relates that the plague and war disaster did not occur because the prophecy was opposed, but that war made settlement in Pelargicon necessary[44]. For this reason, Thucydides claims that the Athenians misinterpreted the prophecy, but nevertheless the Delphic oracle had foreseen that Pelargicon could be settled during times of disaster[45]. The historian's treatment and reinterpretation of the Pelargicon prophecy, which was widespread in Athens of that period, reveals his tendency to establish an indirect relationship between divine power and war and plague[46].

The treatment of multiple disasters (war, plague, famine) that drove a developed 5th century BC Greek polis, with its political institutions and politically conscious citizens, into physical and social collapse alongside devastating major natural disasters, and the interpretation of natural disasters together with prophetic narratives, represents one of the most striking aspects of Thucydides' historiography and literary rhetoric. At the same time, this narrative technique appears to contradict the identity attributed to Thucydides as the first critical and objective historian who forms the foundation of the Western historical tradition[47]. This contradictory situation is so pronounced that it sometimes reflects in Thucydides' own style. The influence of the *tragedia* style in Thucydides' descriptions of the disasters (*pathemata*) and natural calamities that accompanied the Peloponnesian War, as well as in the dialogues between the Athenians and Melians before their unprovoked attack on the island of Melos and

[41] Thucydides I 89-118.
[42] Kallet, "Thucydides, Apollo, the Plague, and the War", 373.
[43] Thucydides II 17.
[44] Thucydides II 17.
[45] Bruzzone, "Polemos, Pathemata, and Plague", 887, n. 12.
[46] Bruzzone, "Polemos, Pathemata, and Plague", 887, n. 12.
[47] Murray, O., 2001, "Greek Historians", In: *The Oxford History of Greece and The Hellenistic World*, (Boardman, J.; Griffin, J.; Murray, O., eds.) Oxford University Press, Oxford, 225-226.

the subsequent massacre, leaves its mark on the historian's narrative[48]. Athens' explanation of its attack on Melos and subsequent massacre through real-political justifications driven by hegemonic ambition without recognizing any moral values, followed by its defeat and destruction at the end of the Peloponnesian War due to the same real-political laws of nature, seem to constitute the principal episodes of a *tragedia* composition. In a paragraph in dialogue form, the Melians object to Athens' immoral aggressive actions driven by hegemonic ambition; in response, the Athenians, with the arrogance of a tyrannical city-state, regard their aggressions as legitimate[49]. When the attack on Melos and similar attacks undertaken out of hegemonic ambition are considered together with the subsequent diplomatic and military events that determined the Athenians' defeat, the influence of *tragedia* becomes more pronounced in Thucydides' narrative[50]. This narrative technique serves to prove the exceptional character of the Peloponnesian War, which, alongside the disasters that accompanied the war, was more destructive and longer in duration than all previous wars, including the Persian-Greek Wars[51].

Essentially, Thucydides evaluates the Peloponnesian War as a single war lasting chronologically twenty-seven years, proportionate to the magnitude of destruction it caused in the Hellenic World, alongside the plague, famine, and other natural disasters it brought with it[52]. While questioning the causes of the war based on real political conditions and rational criteria, Thucydides uses the same critical and questioning approach to reveal the fragility of the Peace of Nicias, which officially ended the Archidamian War[53]. In this respect, the Treaty of Nicias was a temporary ceasefire period in which mutual distrust continued and treaty provisions were violated, rather than a peace period that ended the Peloponnesian War[54]. Moreover, Thucydides states that it would be correct to include the armistice period brought by the Peace of Nicias, which temporarily ended the first ten-year war that began with Spartan King Archidamus's invasion of Attica with the Peloponnesian Army, within the duration of the war[55]. Evaluating the duration and phases of the war by considering concrete diplomatic and military developments and therefore speaking of a single war that shook the entire Hellenic World, Thucydides does not hesitate to resort again to the interpretations of seers to support this idea. For him, when the ten-year Archidamian War is combined with the doubtful armistice period brought by the

[48] Thucydides V 85-116; Murray, "Greek Historians", 230.
[49] Murray, "Greek Historians", 230.
[50] Murray, "Greek Historians", 230; Kallet, "Thucydides, Apollo, the Plague, and the War", 375-379.
[51] Thucydides I 23.
[52] Murray, "Greek Historians", 224-225; Kallet, "Thucydides, Apollo, the Plague, and the War", 376.
[53] Murray, "Greek Historians", 224; Kallet, "Thucydides, Apollo, the Plague, and the War", 376.
[54] Thucydides V 25.
[55] Thucydides V 26.

Peace of Nicias that followed it and the second war phase that reignited with the collapse of the Peace of Nicias, the duration of the 'Great Peloponnesian War' consisting of three periods in chronological order is calculated as twenty-seven years[56]. Indeed, expressing that the prophecies made at the beginning of the war also confirmed these chronological evaluations, Thucydides refers to the interpretations of seers who announced that the war would last three times nine years from beginning to end[57]. Thus, the war's timeline consists of three main phases: the beginning of the war accompanied by multiple disasters and the first ten-year phase, followed by a non-permanent armistice period, and then the second phase marked by Athens' military disaster in the Sicilian Expedition. The second phase concluded with Athens' surrender. This timeline is also confirmed by the prophecies reported by Thucydides.

Thus, in Thucydides' narrative of the History of the Peloponnesian War, the presentation of prophecies as data supporting his own convictions regarding the course and outcome of the war provides chronological integrity to the war while simultaneously displaying Athens' inevitable fate as strikingly as a *tragedia* scene. Thucydides articulates the prophecies he expressed regarding the disasters that began as soon as Archidamos' Army invaded Attica at the beginning of the war's first phase, also at the beginning of the second phase (414-410 BC) when the Peace of Nicias was broken and the war ultimately concluded with Athens' collapse and defeat. As previously mentioned, Thucydides presents the multiple disasters that accompanied the Peloponnesian War, particularly the plague epidemic, to the reader under the influence of the literary tradition seen in Homer's and Hesiod's epic narratives and tragedy scenes. Similarly, in the fifth volume of his work, before narrating in detail the course of military and diplomatic events that occurred as a result of renewed conflicts following the breakdown of the Peace of Nicias, he explains his own historiographic method. However, while establishing a narrative style based on realpolitik evaluations shaped by a critical and objective perspective, he does not hesitate to state that the prophecies put forward about the duration and course of the war support his own conclusions in this section, just as in the second section. For him, both his treatment of military and political events from a critical and rational perspective, and his inclusion of prophecies supporting his own convictions in his narrative, along with his thematic presentation reminiscent of the tragedy tradition in his depictions of important events and figures, demonstrate that Thucydides' work possesses a "dualist" narrative and literary content. Two historical events that reinforce this narrative style are the emergence of the plague epidemic that accompanied the war and the social collapse it caused, as well as the

[56] Thucydides V 26.
[57] Thucydides V 26.

transformation of the Athenians' Sicilian expedition into a great military disaster, which Thucydides narrates in the seventh volume of his work. When describing the defeat of Athens' expeditionary army in Sicily against the Syracusans and the Peloponnesians who came to their aid, Thucydides uses the term *panolethria*, meaning total destruction, inspired by the capture and subsequent devastation of Troy by the Achaeans[58]. Thucydides' narrative of the decisive defeat and destruction of Athens' expeditionary force in Sicily, preceded by Strategos Nicias' speech viewing the Athenian Army as Athens itself[59], suggests that the disaster befalling the army actually signified the defeat of the entire city, and therefore that Thucydides in some way identified the military disaster that befell the Athenian Army in Sicily with the defeat Athens would suffer at the end of the war. Thus, the multiple disasters (*pathemata*) that accompanied the Archidamian War, which was the first phase of the war, followed by the military disaster and total destruction (*panolethria*) that the Athenian Army suffered in Sicily during the second phase of the war that intensified again as a result of the breakdown of the Peace of Nicias, can be evaluated as omens of the crushing defeat and destruction that Athens would suffer at the end of the war.

Thus, beyond the scientific approach that shaped Thucydides' historical methodology, epic narrative and *tragedia*-themed theatrical tradition shows its influence in the author's transmission of historical events and portrayal of historical figures. When describing the magnitude of the war and the destruction it caused in the Greek World, and when conveying that earlier wars such as the Persian-Greek Wars were not as significant as the Peloponnesian War in terms of geographical scope and duration, he conducts comparative historical analyses, employing scientific methods that are valid in every situation and context while doing so[60]. Similarly, when establishing the war's timeline with complete chronological precision from beginning to end, he proceeds from concrete and verifiable geopolitical observations and interpretations[61]. These principles that define his historical method, according to Murray, diminish the literary appeal of his work[62]. Because according to him, Thucydides aims not for a theatrical performance for momentary scenic listening, but for a universally valid scientific method[63]. In this direction, he conveys Athens' ambition to establish hegemony in the Greek World that led to war and the suspicion and unease this "Panhellenic" policy created among Sparta and its allies within the same scientific style. Grounding his own historical methodology on rational and scientific foundations,

[58] Thucydides VII 87; Kallet, "Thucydides, Apollo, the Plague, and the War", 378; Bruzzone 2017, 907.
[59] Thucydides VII 77; Bruzzone, "Polemos, Pathemata, and Plague", 906.
[60] Murray, "Greek Historians", 224-231; Rhodes, P. J., 2006a, "The Literary Sources", In: *A Companion to the Classical Greek World*, (Konrad H. Kinzl ed.), Blackwell Publishing Ltd., Malden, 29.
[61] Murray, "Greek Historians", 225.
[62] Murray, "Greek Historians", 225.
[63] Murray, "Greek Historians", 225, Thucydides I 22.

Thucydides distinguishes between the accusations and claims witnesses made according to the interests of the side they supported regarding the Peloponnesian War and the "most accurate" explanation[64]. Murray compares Thucydides' rational and critical historical method with the Hippocratic methods by which the medical writers of the period investigated the underlying causes of diseases, even stating that his account of the plague epidemic in Athens in the second volume of his work is scientifically superior even in explaining a medical case[65].

However, his scientific historical methodology does not mean that he evaluated events in a completely unbiased and impartial manner. P. J. Rhodes states that Thucydides wrote some episodes in detail while neglecting other sections, and therefore, like other Classical Period Greek writers, rather than presenting definitive judgments, he directed readers to see events as he wished through evidence that supported his own judgments[66]. Thucydides' treatment of historical events and disasters such as the plague epidemic with a critical and rational approach while simultaneously presenting them alongside prophecy, and his presentation of prophecies to the reader as evidence supporting his own theses, supports Rhodes' interpretation. In this regard, while the material evidence, statements, stories, and speeches on which Thucydides bases his views when interpreting events are concrete and verifiable, the content and scope of this evidence is presented to the reader in harmony with the author's arguments in many cases. According to Murray, the source of Thucydides' literary style lies in the opposing ideas and debates of the sophist orators who were his contemporaries[67]. However, in Thucydides' work, which was inspired by the Sophists' debates, this way of thinking leads to discontinuity and inconsistency in the sequence of opposing thoughts of the parties, while simple events are treated in a convoluted manner and complex events are approached with a narrow scope[68]. The limits and scope of the material evidence that Thucydides relies upon when conveying his political analyses and geopolitical conclusions from his narrative are inevitably determined by the importance he attributes to events and his own order of priorities[69]. Within this framework, Rhodes notes that Thucydides cannot be viewed as a chronicle writer who transmits events with complete impartiality[70]. With a similar approach, Murray argues that the history of the Peloponnesian War cannot be constructed with absolute certainty from Thucydides' narrative, and that the reader can only accept or reject the views and conclusions to which the author attributes importance and priority regarding the

[64] Rhodes, "The Literary Sources", 29.
[65] Murray, "Greek Historians", 227.
[66] Rhodes, "The Literary Sources", 30.
[67] Murray, "Greek Historians", 227.
[68] Murray, "Greek Historians", 227.
[69] Rhodes, "The Literary Sources", 30.
[70] Rhodes, "The Literary Sources", 30.

causes and course of the war[71]. Murray, who questions Thucydides' claim in the first and second sections of his work that he narrated events in an impartial and objective style as if it were a manifesto, states that the historian sometimes acted with personal prejudices[72]. Indeed, Thucydides reflects his sympathy and hope for him both in his speech regarding the diplomacy and policy that Pericles advised the Athenians to follow against the invasion threat of Sparta and its allies[73], and in the Funeral Oration in which he praised Athens' dignified stance despite the destruction and great material losses brought by the war[74]. In contrast to this detailed and extensive narrative in favor of Pericles, Strategos Thucydides' account of the military operation in which he failed to reach Amphipolis in time lacks detail[75]. On the other hand, Thucydides refrains from blaming Pericles' war strategy as responsible for Athens' losses due to unforeseen disasters, while he treats the Sicilian Expedition more critically as a strategist.

III. Thucydides' Political Discourse and His Commentaries on Pericles' Administration

Thucydides regarded Pericles' diplomatic and military policies as among the fundamental causes of the Peloponnesian War. To understand the perspective that determines Thucydides' accounts on this matter, one must consider the historian's social position, military and political career. Thucydides, an aristocratic Athenian, had family connections with Miltiades[76], the hero of the Battle of Marathon, and Cimon[77], Pericles' political rival. Cimon, son of Miltiades, was a statesman who made a truce agreement with Sparta in order to limit Athens' war policy to hostility against the Persians[78]. Herodotus, who provides information about the events of this period in the final section of his work, essentially speaks of the efforts made by Greek city-states that participated in the Persian Wars and maintained constant rivalry among themselves to establish a Hellenic League against the common threat. Thucydides, on the contrary, narrates the conflicts between city-states in an environment where the Peloponnesian War divided the Greek world. Moreover, Thucydides had served in the fleet of the Delian League under Athens' leadership and had commanded

[71] Murray, "Greek Historians", 227.
[72] Murray, "Greek Historians", 228.
[73] Thucydides I 140-144.
[74] Thucydides II 35-46.
[75] Murray, "Greek Historians", 227.
[76] Kaya, M. A., 2022, *Ege ve Yunan Tarihi II, Klasik ve Hellenistik Çağlar*, Bilge Kültür Sanat, İstanbul, 106; Rhodes, "The Literary Sources", 28.
[77] Kaya, *Ege ve Yunan Tarihi II*, 173-179; Rhodes, "The Literary Sources", 28.
[78] Kaya, *Ege ve Yunan Tarihi II*, 179.

the unsuccessful naval operation against Amphipolis (424 BC)[79]. Thucydides, appointed as *strategos* in the Athenian fleet based at Thasos, failed to reach Amphipolis in time to aid it while under Spartan siege, and consequently the city surrendered to the Peloponnesian army under the command of the Spartan commander Brasidas[80]. As a result of this failure, Thucydides was tried and exiled from Athens[81]. The unsuccessful military expedition to Amphipolis and the subsequent exile, along with the earlier Athenian plague epidemic, were the two most traumatic events that Thucydides experienced during the Peloponnesian War. However, despite being directly involved as an Athenian citizen and commander in the Peloponnesian War, Thucydides attempts to base his work on an objective narrative, just as Herodotus states in the preface to his work. Thucydides characterizes the reports about the war that reached him as sometimes one-sided and flawed due to partisanship, and complains that learning the truth of these reports was difficult for him[82]. According to C. W. Fornara, Thucydides' intention to maintain an impartial stance when writing his work, like that found in Herodotus' narrative, made objectivity a stylistic rule for historiography[83].

Besides this, Thucydides states that he wrote his work so that the historical facts of the Peloponnesian War would not be forgotten and so that the accuracy of the information he conveyed about the war would not be doubted in the future. Apart from these justifications he presents as the purpose of his work, it is claimed that Thucydides aimed to provide "political benefit" when evaluating events[84]. The negotiations conducted in Sparta between the warring parties, and the debates between the Athenians and Mytileneans following Mytilene's decision to withdraw from the Delian League, are presented by Thucydides as examples of policies that should be avoided or followed[85]. However, Fornara notes that the benefit Thucydides intended in his *historia* was to convey information with clear certainty to the reader; therefore, he states that Thucydides' aim was not the manipulation of historical events through interpretations based on probabilities, but rather to reach knowledge itself[86]. Furthermore, Fornara records that Thucydides was inclined to include general maxims in the speeches

[79] Kallet, L. 2000, "The Fifth Century: Political and Military Narrative", In: *Classical Greece, 500-323 BC* , (Osborne, R. ed.), Oxford, 191; Welwei, K-W., 2006, "The Peloponnesian War and its Aftermath", In: *A Companion to the Classical Greek World*, (Kinzl, K. H., ed.), Blackwell Publishing Ltd., Malden, 530.

[80] Kallet, "The Fifth Century", 191.

[81] Thucydides V 26; Kallet, "The Fifth Century", 191; Rhodes, "The Literary Sources", 28.

[82] Thucydides I 22; Fornara, C. W., 1988, *The Nature of History in Ancient Greece and Rome*, University of California Press, London, 100.

[83] Fornara, *The Nature of History*, 100.

[84] Jacoby, F. 1956, *Griechische Historiker,* Stuttgart: Alfred Druckenmüller Verlag in Stuttgart, 88; Fornara, *The Nature of History*, 106.

[85] Fornara, *The Nature of History*, 106.

[86] Fornara, *The Nature of History*, 106.

in his historical writing technique[87]. These maxims that appear in the speeches provide the reader with advance insight into the fate of political and military actions defended or opposed by the speaker. In this respect, these maxims inspired by philosophical and moral teachings in dialogues, alongside the dramatic narrative technique in tragedy style that includes prophecy and divine interpretations, serve to indirectly support Thucydides' political foresight and criticisms in the reader's eyes. Thus, both Herodotus and Thucydides preferred to guide the reader toward "appropriate" and "most accurate" judgment through data supporting their arguments and descriptions of events. It is even stated that in the "storytelling" narrative style of Herodotus and Thucydides, when possible and applicable, the author appropriated his own ideas as public opinion into the common thought of society[88]. At this point, Herodotus, who reflected the storyteller's style as in Homer's legendary narrative, conveyed moral lessons through misfortunes he constructed as plot devices[89]. Thucydides, whose work shows the influence of this narrative style of Herodotus, drew upon epic and literary *tragedia* tradition when conveying his views to the reader. However, in his factual inferences and descriptions of events, he benefited from the rational thinking methods of "Hippocratic" writers. In this regard, the philosophical school of sophistic thinkers in Athens, as much as "Ionian Natural Philosophy," constitutes the historical source of Thucydides' methodology.

However, this philosophical way of thinking and "scientific" approach are insufficient to describe Thucydides' work as absolutely impartial and objective. First of all, although Thucydides speaks of an "epistemological" benefit that those who wish to understand past events and similar events that human nature will bring in the future would find useful, this social "benefit" is not a benefit completely purged from the theories of Classical Greek Philosophy and Athenian Political Thought[90]. In this respect, according to Murray, the social model from which he expected his historical study to be found useful is 'Radical Athenian Democracy', consisting of free citizens who shape political processes through open discussion and direct participation in harmony with rational principles[91]. For this reason, Thomas Hobbes defines Thucydides as the most political historiographer of his age[92]. The ideological foundation of Thucydides' historical study, who diverged from his family's past political stance in order to support Pericles' policy and undertook military duties to support his policy based on hegemony and naval supremacy, in a sense coincides with Pericles' policies.

[87] Fornara, *The Nature of History*, 107.
[88] Fornara, *The Nature of History*, 107.
[89] Rhodes, "The Literary Sources", 28.
[90] Thucydides I 22; Murray, "Greek Historians", 228.
[91] Murray, "Greek Historians", 228.
[92] Murray, "Greek Historians", 228.

Therefore, despite all the rational influences of 'Ionian Natural Philosophy', Sophistic thought, and "Hippocratic" scientific descriptive method when analyzing historical facts, it was not possible for "Athenian" Thucydides to be completely unprejudiced and impartial when creating his work[93]. For example, the discussions in Thucydides' work about the political developments in Athens after Pericles' death and the errors in war strategy[94], as well as the political structure of the conflicts between oligarchy and democracy supporters in the city of Corcyra during the war[95], reveal the historian's interpretations based on his political worldview[96]. Apart from this, the historical speech that most clearly explains Thucydides' political attitude and the political motivation effective in guiding the reader with the data and references he presents is Pericles' speech to the Athenians at the beginning of the Archidamian War[97] and the "Funeral Oration"[98]. According to this, in his speech to the Athenians just before the outbreak of the plague epidemic in Athens, Pericles advised his citizens to be prepared for war and the bitter losses it would bring, and called upon them to maintain a dignified stance in the face of losses. He advised them (the Athenians) to sacrifice their homes and lands remaining in the Attic countryside and to postpone mourning for loss of life[99]. J. W. Allison notes that Athenian Democracy and the citizenship culture it created made it possible for Pericles to expect Athenians to comply with his war policy at the cost of destroying their property and to sacrifice their individual interests for the public good[100]. Similarly, in the "Funeral Oration", Pericles depicts the Athenians as a society united in pursuing a single ideal without political conflict and tension[101]. The social unity and harmony of Athens, which Thucydides idealizes in a sense, creates a contrast with the pathological condition of a city like Corcyra that was fragmented due to internal conflict (stasis)[102]. In this respect, in Thucydides' political theory, Athens under Pericles' leadership represents the ideal Greek *polis* with social order, while the city of Corcyra represents a *polis* that has lost its unity and experienced social dissolution as a result of war and the internal conflicts that accompanied it[103].

In this regard, when Thucydides' own political thought, which he idealized through references to Pericles' speeches, is evaluated in context, the

[93] Rhodes, "The Literary Sources", 30.
[94] Thucydides II 65.
[95] Thucydides III 82-84.
[96] Murray, "Greek Historians", 229.
[97] Thucydides I 140-144.
[98] Thucydides II 35-46.
[99] Thucydides I 143; Allison, "Pericles' Policy and the Plague", 16.
[100] Allison, "Pericles' Policy and the Plague", 17.
[101] Murray, "Greek Historians", 229.
[102] Murray, "Greek Historians", 229.
[103] Murray, "Greek Historians", 229.

historian's dedication to the pursuit of truth and his objectivity become questionable. According to D. M. Lewis, the main difficulty stems from ancient historians' dependence on the information provided by Thucydides about events that occurred between 435-411 BCE[104]. According to Lewis, Thucydides was selective in presenting historical material and sometimes treated military developments outside their relevant context and chronological order, handling them within the framework of his own political perspective[105]. Thucydides' elaboration of the content of historical events according to his own political views and his presentation of prophetic narratives as evidence supporting his own opinions recalls his recourse to the dramatic narrative techniques of epic and tragedy. As mentioned earlier, this style of the author is clearly visible especially in the depictions of certain events (the plague epidemic in Athens, the dialogue between the Melians and Athenians, the Athenians' Sicilian Expedition and the subsequent military disaster). Thucydides' selective presentation of events and evidence contradicts his claimed objectivity, and this situation is also evident in his accounts of Pericles' policies. For instance, when dealing with Athens' expansionist policy that transformed the Delian League into an overseas maritime empire, little mention is made of the difficulties and conflicts that Pericles, the supporter of this policy, experienced in the political arena before the outbreak of the Peloponnesian War[106]. In contrast, Plutarch evaluates every piece of data he can access on this subject[107]. Particularly, the information provided by Plutarch about Pericles' education and the beginning of his political career is quite detailed and includes both the criticisms and comments of his supporters and those who opposed him[108]. One of the fundamental difficulties Plutarch encountered when writing Pericles' biography was that the historical sources about Pericles contradicted each other[109]. D. M. Lewis, drawing from Plutarch, notes that Theopompus evaluated Pericles as a demagogue, while Thucydides portrayed him as a foresighted and great statesman[110]. Indeed, Thucydides defines Pericles' administration as an aristocratic government under the name of democracy, but this government is characterized as one ruled by the "first citizen," or *princeps*[111]. However, Plutarch reports that Pericles behaved in a populist manner at the beginning of his rule in order to please the Athenians[112]. In fact, Plutarch states

[104] Lewis, D. M., 2006, "Sources, Chronology, Method", *The Cambridge Ancient History, The Fifth Century B.C.*, (Lewis, D. M.; Boardman, J.; Davies, J. K.; Ostwald M., eds.), V, Cambridge Universirty Press, Cambridge, 5.
[105] Lewis, "Sources, Chronology, Method", 5.
[106] Lewis, "Sources, Chronology, Method", 5.
[107] Plutarch, *Pericles*; Lewis, "Sources, Chronology, Method", 10.
[108] Plutarch, *Pericles* VII.
[109] Lewis, "Sources, Chronology, Method", 10.
[110] Lewis, "Sources, Chronology, Method", 10.
[111] Thucydides II 65.9; Plutarch, *Pericles* IX 1
[112] Plutarch, *Pericles* IX 1-2.

that in his struggle against the *Areopagus* Council, Pericles attracted Athenian officials and citizens to his side through various payments such as festival donations, jury fees, and bribes[113]. In addition, he mentions that after Pericles marginalized his opponents and consolidated his power, he increased his reputation among the people through the construction activities he financed on the Athenian Acropolis[114]. Furthermore, Plutarch records that the power of rule and the popular support he gained led Pericles to abandon being a conciliatory and modest leader and to become an aristocratic and even regal statesman[115].

Interestingly, Plutarch employs medical terminology when describing Pericles' political transformation. According to Plutarch, there were times when Pericles tightened the reins of his rule despite popular opposition. He argues that Pericles did this for the benefit of the Athenians, even at the cost of their displeasure[116]. Plutarch compares this governing style to a physician attempting to treat a long-standing complex illness. He likens Pericles' soft politics aimed at winning Athenian consent to a doctor who shows some indulgence to his patient without interrupting treatment in order to please the patient[117]. However, he views his authoritarian governance containing coercive and restrictive measures as a wise physician treating disease with burning and bitter medicines[118]. Like Plutarch, Thucydides also exhibits a similar medical approach in his theories regarding the governance of the Classical Greek *polis* and ideal social order. Thucydides employs this medical approach not only in describing the state of social anomie caused by the plague epidemic in Athens, but also in narratives about Corcyra where social moral values and unity were damaged due to civil conflict. Similarly, he addresses the political causes of the Sicilian Expedition's transformation into a military disaster for Athens with a comparable approach. Particularly in Thucydides' texts, the crisis created by political conflict between supporters of 'Oligarchy' and 'Democracy' and the inability of a *polis*'s citizens to reach consensus and develop a common policy in the face of diplomatic/military threats are presented as symptoms of a diseased social body. It is noteworthy that measures to be taken to avoid moral collapse and social chaos resulting from events such as war, civil conflict, and plague are presented by referencing the ideas in Pericles' speech to the Athenians at the beginning of the war and in the 'Funeral Oration'. Therefore, it should be kept in mind that Thucydides praised Pericles' character and political role in order to express his own political idealism and demonstrate the superiority of Athens' established

[113] Plutarch, *Pericles* IX 3.
[114] Plutarch, *Pericles* XIII-XIV.
[115] Plutarch, *Pericles* XV 2.
[116] Plutarch, *Pericles* XV 3.
[117] Plutarch, *Pericles* XV 3.
[118] Plutarch, *Pericles* XV 3.

'democratic government' compared to other city-states[119]. The expression in Pericles' 'Funeral Oration' that the Athenians possessed the collective consciousness to bear the losses caused by war, along with the emphasis on an institutionalized and established democratic government model, can be evaluated as Thucydides' affirmation of Athens' policy of establishing hegemony over the Hellenic World through Pericles' words[120]. Furthermore, Thucydides presented Pericles' speech immediately before his narratives about the moral collapse and social anomie experienced during the plague epidemic in Athens, thus presenting his views that exalted Athens in ironic contrast with the social disasters that would occur in the future[121]. In a sense, he presents Pericles' advice to the Athenians as a prescription for the social crisis that the disasters to come would bring about. In Thucydides' texts, it is stated that history records the successes achieved by Athens under Pericles' leadership both on land and sea. He claims that these successes, won through the courage of its citizens, proved Athens' exceptional position in the Greek World. According to Pericles, the reputation Athens gained was worth all the difficulties experienced and lives sacrificed[122]. Thus, Thucydides, in conveying Pericles' speech, establishes the legitimacy of the war undertaken against the Peloponnesians and justifies the deaths caused by the war through his words[123]. At the same time, Thucydides attempted to give his political views historical validity by supporting them with Pericles' speeches.

Thucydides' use of Hippocratic medical terminology in his historical narrative can be explained by the influence of Sophist philosophy on his political theories. According to this approach, Thucydides believed that diplomatic and military conflicts between *poleis* with developed political institutions stemmed from the struggle for interests and the pursuit of power that lies at the foundation of human nature. Therefore, under the influence of Sophist thought, which accepted man in all his aspects as the measure of all things, Thucydides regarded the social reactions of human society as the driving force of political developments. According to Murray, Thucydides viewed the proposition "might makes right" as a general truth about human society[124]. At the same time, Murray notes that in Thucydides' political theory, societies are organized according to self-interest and act in accordance with self-interest[125]. According to this approach, the struggle arising from man's survival instinct serves as a fundamental model that Thucydides used when explaining the policies of the parties in the Peloponnesian War. In this context, Thucydides likened the political

[119] Stefanovski and Čavoški, "Polis, Loimos, Stasis", 643-644.
[120] Thucydides II 35-46.
[121] Stefanovski and Čavoški, "Polis, Loimos, Stasis", 643.
[122] Thucydides II 41; Stefanovski and Čavoški, "Polis, Loimos, Stasis", 644.
[123] Thucydides II 41.
[124] Murray, "Greek Historians", 228.
[125] Murray, "Greek Historians", 228.

and military reactions of states to the environmental adaptation mechanisms of living organisms. According to the political ideas that Thucydides expressed indirectly through references to Pericles' speeches, states with healthy social structures succeeded in the struggle for hegemony in the Greek world, while societies with social structures lacking collective consciousness and divided by internal conflicts found defeat and disaster inevitable. From this perspective, the plague epidemic in Athens not only infected the human organism but also corrupted the social order and the collective consciousness arising from citizenship law. Therefore, the plague disaster in a sense also infected the social fabric of Athenian society.

Therefore, the social chaos created by the plague epidemic that struck Athens the year after the outbreak of the Peloponnesian War completely destroyed the spirit of social unity and order required by the war strategy that Pericles had recommended to be followed. Allison draws attention to the ironic contrast between Pericles' 'Funeral Oration', which praised Athens' civic virtues, and the plague epidemic that immediately afterward plunged society into social collapse[126]. Indeed, the social chaos that emerged as a result of the disappearance of moral values and the rule of law, which Thucydides called *anomia*, is regarded as one of the most fatal conditions for a *polis*[127]. The civil war (*stasis*) in Corcyra created destructive effects similar to the plague-induced *anomia* in Athens in terms of destroying social institutions and eliminating *polis* identity[128]. Clearly, the plague-induced *anomia* in Athens and the *stasis* in Corcyra are considered social crises that threatened the integrity of Athenian society, which supported Pericles' maritime policy and Panhellenic ideals. These social crises actually constituted, in a sense, a historical antithesis to Pericles' 'thalassocratic' Athenian Empire. From this perspective, while the Athenian people (demos) adopted the hegemonic policy idealized by Pericles, they also assumed the responsibility of preventing the social crises that threatened this policy. This matter is better understood when considering the speeches recorded in Thucydides where Pericles drew attention to the collective consciousness of the Athenians that prioritized the public good. From this perspective, Thucydides' approach to Pericles' policy can be better interpreted.

In Pericles' speech announcing the inevitability of war and in the 'Funeral Oration', the struggle for hegemony among Greek *poleis* is evaluated from a natural law (*lex naturalis*) perspective. According to this approach, the Athenians, after transforming the Delian League into a maritime empire during Pericles' period, had reached a critical point where they could no longer abandon this

[126] Allison, "Pericles' Policy and the Plague", 17.
[127] Thucydides II 52-53; Stefanovski and Čavoški, "Polis, Loimos, Stasis", 646.
[128] Thucydides III 82.

empire. According to Pericles, the Athenian people were compelled to preserve their empire like a tyranny—an empire that might have been wrong to acquire initially but was now dangerous to relinquish[129]. Essentially, this conception of Pericles aligns completely with Thucydides' fundamental perspective that views historical developments as the result of conflicts of interest among human societies. From this standpoint, the inevitability of war as a consequence of Sparta's fear of Athens' policy of establishing hegemony over the Hellenic world is also consistent with the laws of nature. In this respect, Pericles' speeches recorded in Thucydides' work serve not to objectively convey to the reader exactly what was said, but rather to transmit the historian's political worldview to the reader within his historical methodology. At the foundation of this political worldview lies the continuation of the geopolitical strategy proposed by Pericles for the preservation of Athens' maritime empire and the protection of the legal and political institutions of Athens' democratic government. This is because the restructuring of the Delian League as Athens' maritime empire was accomplished under the democratic governments of 'anti-oligarchic' generals and politicians such as Themistocles, Ephialtes, and Pericles. In this context, Pericles' Athens-centered Panhellenic policy gains historical legitimacy through his own speeches.

One of the fundamental points that stands out in Pericles' speeches is that Athens had achieved its position as a maritime empire through democratic governance. By the end of the 450s BCE, when Athens was transforming the Delian League into a maritime empire, the democratic government must have established the administrative structures to control this empire[130]. This included the transfer of the Delian League treasury to the Parthenon in Athens[131]. Pericles' overseas hegemonic policy encompassed sending Athenian settlers (*kleroukhoi*) to strategic regions (Chersonesus, Euboea, Naxos, Thrace) and refounding Sybaris as Thurii[132]. During this process, Pericles became a follower of Themistokles, Aristides, and Ephialtes in diplomacy and Athens' domestic politics[133]. Ephialtes' 'democratic government' attempted both to continue the war against the Persians in Cyprus and Egypt while simultaneously trying to increase Athens' power in the Aegean and Greek world[134]. Pericles continued Ephialtes' policies of stripping the Areopagus of its political and judicial powers

[129] Thucydides II 63; Murray, "Greek Historians", 228.
[130] Lewis, D. M. 2006, "The Thirty Years' Peace", *The Cambridge Ancient History, The Fifth Century B.C.*, (Lewis, D. M.; Boardman, J.; Davies, J. K., Ostwald M., eds.), V, Cambridge University Press, Cambridge, 127.
[131] Plutarch, *Pericles* XII 1; Lewis, "The Thirty Years' Peace", 127.
[132] Plutarch *Pericles* XIX 1; Rhodes, P. J., 2006, "The Delian League to 449 B.C.", In: *The Cambridge Ancient History, the Fifth Century B.C.*, (Lewis, D. M.; Boardman, J.; Davies, J. K.; Ostwald M., eds.), V, Cambridge University Press, Cambridge, 59-60.
[133] Kaya, *Ege ve Yunan Tarihi II*, 181-183.
[134] Rhodes, "The Delian League to 449 B.C.", 61.

by distributing them between the Council of Five Hundred (boule) and the Popular Assembly (Ecclesia), while also enhancing Athens' naval power[135]. The main source of funding that enabled Pericles to secure popular support for continuing the reforms that strengthened democratic institutions in Athens was the Delian League treasury kept in the Parthenon. The state revenue that made possible the payments received by Athenian citizens for public services was derived directly from taxes collected from imperial allies[136]. From this perspective, in Thucydides' ideology, the existence of the 'democratic' state governance embodied in Pericles' speeches was dependent upon Athens maintaining its position as a maritime empire. As previously mentioned, during the second Peloponnesian invasion, when Athenian citizens' lands were devastated and they were affected by the plague, Pericles had advised them to preserve the empire despite great sacrifices. At the same time, Thucydides presents this empire through Pericles' voice as a triumph of the idealized Athenian Democracy. In a sense, the political virtues of the democratic government formed by the administrative organs of the Athenian *demos* that held the reins of the Maritime Empire are identified with Pericles' personal character and the moral principles he possessed.

Thucydides emphasized Pericles' oratorical prowess, political charisma, and leadership qualities, thereby demonstrating his commitment to Athenian democracy, an approach that aligned with his own historical perspective. Indeed, the most prominent Athenian politicians of the fifth century BC possessed administrative authority as one of the ten annually elected *strategoi*. Pericles, who was elected *strategos* every year from 443 BC until his death from the plague in 429 BC, represents the most distinguished example among Athenian military-political leaders[137]. Politicians elected to military command in the Popular Assembly were thus popular 'democrats' who held military authority for extended periods of service. Consequently, a *strategos* like Pericles, who possessed the power and support to pass legislation in the Popular Assembly, enjoyed significant advantages. If he could exercise his command through oratorical skill that would lead the *demos* and persuade the people to enact his desired laws, he could establish a power resembling autocratic rule[138]. It is for this reason that Thucydides characterized Pericles' supremacy in Athenian politics as "the government of the first citizen"[139]. Moreover, Pericles'

[135] Kaya, *Ege ve Yunan Tarihi II*, 181-186; Rhodes, P. J., 2006, "The Athenian Revolution", In: *The Cambridge Ancient History, the Fifth Century B.C.*, (Lewis, D. M.; Boardman, J.; Davies, J. K.; Ostwald M., eds.), V, Cambridge University Press, Cambridge, 62.
[136] Rhodes, "The Athenian Revolution", 87.
[137] Thomas, R., 2000; "The Classical City" In: *Classical Greece, 500-323 BC, the Short Oxford History of Europe*, (Osborne, R., ed.), Oxford University Press, Oxford, 66.
[138] Thomas, "The Classical City", 66.
[139] Thucydides II 65.

management of the Athenian naval empire's military strategy as a *strategos* and political leader of the democrats represented a militarization of the democratic regime. In essence, the ideological discourse that reconciled Athenian imperialism with democratic virtues, for which Pericles served as spokesman in Thucydides' work, was fundamentally grounded in this historical circumstance.

Therefore, according to Thucydides, Pericles' death during the plague epidemic constituted a major historical turning point that prevented the Peloponnesian War from concluding with an Athenian victory. For according to Thucydides, Pericles possessed both the leadership capacity to manage the social crises caused by the war and the plague, and the ability to provide military leadership while adhering to the laws of Athenian democracy without resorting to demagogy[140]. Moreover, Thucydides contrasts Pericles' prescient strategy and stable governance with Athens' military disaster in the Sicilian Expedition. Thus, when narrating the historical events at the beginning of the Archidamian War, the first ten-year period of the Peloponnesian War, Thucydides remarkably emphasizes the contrast between Pericles' leadership qualities and the personal weaknesses and lack of foresight of those who planned the Sicilian Expedition[141]. On the other hand, Thucydides demonstrates the validity of Pericles' defensive strategy for Athens' maritime empire through this very contrast.

The fundamental strategy that Pericles advocated in the war undertaken against the Peloponnesians was to rely on the fortification system called the "Long Walls," which connected the ports of Piraeus and Phaleron to the *asty*, and to conduct continuous overseas raids on the coasts of Sparta and its allies; simultaneously, according to this strategy, the aim was to maintain the allegiance of their "allies" to the Delian League and thus sustain Athens' war economy with the tribute collected[142]. Essentially a defensive strategy, Pericles' war plan called for resorting to offensive operations only as retaliation[143]. The Athenians who followed Pericles' war plan avoided engaging in land battles except for retaliatory raids in Megarian territory[144]. According to J. T. Roberts, Pericles' success in persuading the Athenians to follow the "island strategy" and his ability to achieve this within his democratic administration testifies to his talents as a statesman and orator[145]. Based on the impression gleaned from Thucydides' texts regarding Pericles' conduct of the war, Pericles' objective was to demonstrate to the

[140] Thucydides II 65.
[141] Thucydides II 65.
[142] Lewis, D. M., 2006, "The Archidamian War", In: *The Cambridge Ancient History, the Fifth Century B.C.*, (Lewis, D. M.; Boardman, J.; Davies, J. K.; Ostwald M., eds.), V, Cambridge University Press, Cambridge, 380-388; Welwei, "The Peloponnesian War and its Aftermath", 528.
[143] Lewis, "The Archidamian War", 381.
[144] Roberts, J. T., 2017, *The Plague of War, Athens, Sparta and the Struggle for Ancient Greece,* Oxford University Press, Oxford, 108.
[145] Roberts, *The Plague of War*, 71.

Peloponnesians that they could not break the Athenians' resolve to resist; at the same time, he aimed to force them to accept conditions that would diplomatically guarantee the existence of the Athenian Maritime Empire[146]. Although Pericles' strategy is not explicitly stated, it is evident that Thucydides was satisfied with the achievements of this war strategy[147]. Moreover, the rejection of the peace offers in 425 BC is evaluated as an error in Thucydides' texts, as this rejection, occurring after Pericles' death, squandered an opportunity to make Sparta accept the gains that his strategy had targeted[148]. Indeed, after the Athenian forces under the command of Cleon and Demosthenes defeated the Lacedaemonians in the battle fought on Sphakteria Island at the entrance to Pylos Bay in 425 BC, the Athenians confronted the Spartan envoys in peace negotiations with excessive demands[149]. The Athenian politician and demagogue Cleon was inciting the people and leading the rejection of the moderate peace conditions offered by the Lacedaemonian envoys[150]. What is striking in Thucydides' narrative is that the Athenian Cleon, who rejected the peace conditions with excessive demands, is portrayed as an unpredictable and factional politician, in contrast to Pericles. In this context, the comparative technique that Thucydides employs to glorify Pericles is noteworthy. The historian emphasizes Pericles' superiority by contrasting his prudent strategy with the inadequate leadership of the Sicilian Expedition commanders. Similarly, the political approach of the demagogic and short-sighted Cleon forms a sharp contrast with Pericles' statesmanship. According to A. Andrewes, if Pericles' strategy aimed solely to prove Athens' invincibility to Sparta, then Pericles would have tried to persuade the people to accept the Spartan peace offer of 425 BC[151]. In a way, the military situation that emerged at this stage of the Archidamian War was quite close to the strategic objectives that Pericles had aimed to achieve. According to Thucydides, had the Athenians followed Pericles' plan, they could have gained an advantageous position against the Peloponnesians in the later periods of the war[152].

However, after Pericles lost his life in the plague epidemic in 429 BC, his war strategy—which was based on prioritizing naval operations and avoiding both direct hoplite combat with the Peloponnesians in Attica and the expansion of the Athenian Empire—was abandoned. The principal turning points of the military collapse that occurred following Pericles' command were as follows:

[146] Lewis, "The Archidamian War", 381-382.
[147] Lewis, "The Archidamian War", 382; Thucydides IV 21-22, IV 41, IV 65, V 14.
[148] Thucydides IV 21-22.
[149] Thucydides IV 21.
[150] Thucydides IV 21-22.
[151] Andrewes, A. 2006, "The Spartan Resurgence", In: *The Cambridge Ancient History, the Fifth Century B.C.*, V, (Lewis, D. M.; Boardman, J.; Davies, J. K.; Ostwald M., eds.), Cambridge University Press, Cambridge, 497.
[152] Andrewes, "The Spartan Resurgence", 496.

First, the allies who rebelled against Athens by declaring their withdrawal from the Delian League. Second, the transformation of the Sicilian Expedition against Syracuse, an ally of the Spartans, and other Dorian colonies into a disaster. Finally, Athens' decisive defeat at Aegospotami with the financial support that the Persian Satrap Cyrus provided to Sparta for naval construction[153]. Thucydides maintains that the Athenians could have successfully resisted all military difficulties but argues that they were defeated due to internal political conflicts[154]. For this reason, Thucydides, who dramatically depicts the civil war in Corcyra, reports with a similar approach that the disagreements and factional attitudes of Athenian military leaders and politicians paved the way for the military disaster experienced in Sicily and the defeats suffered particularly in Ionia and the Hellespont after the exile of the Athenian Alcibiades[155]. The fate of the city of Mytilene on Lesbos, which rebelled against Athens at the instigation of oligarchic supporters, and the civil war experienced in Corcyra appear to have left deep impressions on Thucydides[156]. According to Thucydides, Athens' policy of expanding its empire and its ruthless attitude toward rebellious allies, as seen in the Melian massacre, symbolizes a departure from Pericles' legitimizing discourse. This transformation demonstrates that Athens' maritime dominance had now moved away from political and moral justifications. Moreover, the political turmoil caused by the military losses of Athens, which did not hesitate to massacre its rebellious allies, endangered the sustainability of the democratic system that Thucydides had idealized through Pericles' speeches.

In conclusion, the harmful effects of the internal political conflicts that Thucydides emphasized are clearly evident both in the management of the Sicilian Expedition and in the collaboration of the exiled Alcibiades with Athens' enemies. The financial crisis that emerged following the defeat of the Sicilian Expedition in 413 BC led to political changes in Athens. During this process, the democratic government was overthrown and power passed to the oligarchic administration called the "Four Hundred"[157]. However, the abolition of this oligarchic government, which could not establish stable rule due to internal conflicts among themselves, demonstrates that the internal strife had reached its zenith. It is understood from Thucydides' accounts that toward the end of the war, political division and distrust of military leaders prevented the Athenians from conducting the war properly[158]. A. Andrewes argues that Thucydides' view was

[153] Andrewes, "The Spartan Resurgence", 496.
[154] Thucydides II 65; Andrewes, "The Spartan Resurgence", 496.
[155] Andrewes, "The Spartan Resurgence", 496.
[156] Roberts, *The Plague of War*, 108.
[157] Thucydides VIII 1, VIII 97; Andrewes, "The Spartan Resurgence", 496.
[158] Andrewes, "The Spartan Resurgence", 497.

that Athens could have escaped defeat at Aegospotami if Alcibiades' warnings had been heeded[159].

IV. Inferences and Conclusion

Thucydides emphasizes Athens' deficiency in political leadership and strategy during the war following Pericles' death. Under his leadership, the Delian League was transformed into the Athenian Maritime Empire on one hand, while on the other, the democratic government's popular support was strengthened through tribute collected from "allies" under Athenian control. J. T. Roberts states that Athenian Democracy, built over generations by Solon and Kleisthenes, could have been overthrown by oligarchic supporters without Pericles' political popularity[160]. The strengthening of the democratic system through imperial revenues constitutes, in Thucydides' view, the fundamental legitimacy of Pericles' policies. Although the government in Athens was directly elected by the *demos*, the reins of the empire were actually held *de facto* by Pericles in his position as *princeps*. Nevertheless, according to Thucydides, his commitment to democracy and political ethics that prioritized public welfare legitimized Pericles' "one-man rule" in the eyes of the *demos*. For this reason, Thucydides admires the Athenian Maritime Empire under Pericles' leadership. In contrast, after Pericles, it became inevitable that democracy in Athens would be drawn into internal conflict, as exemplified by Mytilene and Corcyra, due to the calculations of demagogic politicians and factional strife. Indeed, the conflicts of interest among politicians who were less capable but more ambitious than Pericles not only shook the *demos*' commitment to democratic governance but also paved the way for the sacrifice of the correct strategy needed to maintain the empire to political ambitions. Particularly noteworthy are the dangers against which Pericles warned the Athenians in his speech advocating the inevitability of war with the Peloponnesians on the eve of the Arkhidamian War and in his funeral oration for those who died in the war. These dangers began to emerge shortly after his death. Foremost among these warnings was the preservation of the integrity of the hegemonic Delian League under Athenian control. As can be understood from Thucydides' accounts, the maintenance of the Athenian Maritime Empire became difficult without Pericles' democratic ethics and leadership of the *demos*. Moreover, the abandonment of his strategy, which prioritized the protection of the empire's maritime supply routes and was based on naval strategy, not only laid the groundwork for the disaster in Sicily but also deepened the power struggle between political factions in Athens. In short, with Pericles' death, the Athenian Empire began to lose its legitimacy due to politicians who pursued their own interests rather than those of the *demos*. At the same time, the possibility of

[159] Andrewes, "The Spartan Resurgence", 497.
[160] Roberts, *The Plague of War*, 93.

maintaining the correct strategy against the occupation threat from the Peloponnesians was also eliminated.

In this regard, Thucydides' views regarding the Athenian Empire and its "democratic" government during the first phase of the Peloponnesian War (431-421 BC) are positive. In contrast, Thucydides states that democracy not governed under Pericles' leadership had now become corrupted due to the personal ambitions of demagogic politicians and laid the groundwork for internal conflicts that would lead to the empire's destruction. The comparison between Athens' response to the Mytilenian revolt and the massacre inflicted upon the Melians makes the subject more comprehensible in terms of demonstrating how Athens' power politics changed. As is known, Mytilene, which had separated from the Delian League and joined the Peloponnesian side, was not subjected to mass slaughter after being recaptured by Athenian forces, nor was the city destroyed. According to O. Murray, in Thucydides' account, the moral principles of the Athenian Empire and democracy prevented the Athenians from committing mass slaughter against the Mytilenians and from destroying their polis[161]. The attack launched by the Athenian fleet against the island of Melos, which had declared its neutrality in 415 BC, in order to incorporate the city into the Delian League, and the subsequent massacre, are clear indicators that Athens in the post-Pericles period recognized no moral limits in protecting its empire[162]. The insolent attitude of the Athenian envoys reflected in the longest dialogue in Thucydides' work[163] (the Melian Dialogue) and their legitimization of the strong's dominion over the weak as 'the law of nature' are incompatible with the cautious, defense-oriented policy that Athens pursued in the early years of the Peloponnesian War. However, it is possible to see the ideological roots of the Athenian envoys' understanding that "might makes right" in Pericles' speeches. When the Melians opposed Athens' targeting of them, viewing it as unjust and immoral actions, the Athenian envoys responded to them with an insolence reminiscent of a tyrannical regime[164]. Thucydides' account of Athens' occupation of the island and the massacre it perpetrated following the failure of diplomatic negotiations between the Melians and Athenians resembles, from a literary perspective, an episode of a Greek tragedy. Fornara, noting that dialogues are a form characteristic of theatrical literary texts, reports that Thucydides tended to resort to such literary techniques in his style to narrate events more strikingly[165]. Murray, emphasizing the influence of Greek tragedy on Thucydides' work, argues that Athens' unjust

[161] Murray, "Greek Historians", 229.
[162] Kaya, *Ege ve Yunan Tarihi II*, 219-220; Couch, "Some Political Implications", 102; Fornara, *The Nature of History*, 155-157; Prince, S., 2006, "The Organization of Knowledge", In: *A Companion to the Classical Greek World*, (Kinzl, K. H., ed.), Blackwell Publishing, Malden, 443.
[163] Thucydides V 85-111.
[164] Murray, "Greek Historians", 230.
[165] Fornara, *The Nature of History*, 156.

and insolent attack on Melos was, like in tragedies, a harbinger of the military disaster that would occur in the Sicilian Expedition[166]. M. Ostwald notes that in the Melian dialogues, the Athenian envoys based the ruthless application of imperial power on natural laws. According to Ostwald, this approach is founded on Demokritos' view that "sovereignty is given by nature to the strong"[167]. This approach attributed to the Athenians in the dialogues aims at expanding the empire, contrary to Pericles' defense-oriented strategy[168]. Moreover, the Athenian envoys on the island of Melos, according to Thucydides' account, speak of the nature of imperial power that no legal or practical obstacle can stop. This approach recalls the declarations of the Athenian envoys sent to Sparta at the beginning of the Peloponnesian War[169]. In the declarations of the Athenian envoys sent to Sparta before the war, the growth of the Athenian Empire is explained by the strong's natural pursuit of superiority[170]. Furthermore, in the debate about the punishment to be given to the Mytilenians who rebelled against Athens, Diodotus states that natural laws are superior to human laws. According to Diodotus, states' pursuit of power and the conflicts of interest between them stem from the desire to rule inherent in human nature[171]. Therefore, these debates and dialogues found in Thucydides bear the traces of the sophistic philosophical understanding of the period[172].

Nevertheless, Thucydides' praise of Pericles' defense-oriented war strategy while criticizing the demagogic politicians who led to the Sicilian disaster and Alcibiades' exile following the abandonment of this strategy contains historical inconsistencies. The source of this inconsistency lies in Thucydides' attribution of interstate political struggles to the desire for dominance inherent in human nature, as expressed through his dialogues. This approach is particularly evident in the speeches of Athenian envoys at Sparta before the war, in Pericles' orations, in Diodotus' speeches, and in the Melian Dialogue. In these sections, Thucydides presents the struggle for power and the desire for dominance (particularly in the context of the Athenian Empire) as an inevitable part of human nature within a realist framework on one hand, while adopting a normative stance in praising Pericles' measured, defense-oriented strategy and criticizing his successors (especially demagogues like Cleon) on the other. The source of this inconsistency can be explained as follows: If interstate relations are indeed

[166] Murray, "Greek Historians", 230.
[167] Ostwald, M. 2006, "Athens as a Cultural Centre", In: *The Cambridge Ancient History, the Fifth Century B.C.*, (Lewis, D. M.; Boardman, J.; Davies, J. K.; Ostwald M., eds.), V , Cambridge University Press, Cambridge, 362.
[168] Ostwald, "Athens as a Cultural Centre", 362.
[169] Thucydides I 76; Ostwald, "Athens as a Cultural Centre", 362.
[170] Thucydides I 76.
[171] Thucydides III 45.
[172] Prince, "The Organization of Knowledge", 443.

determined by the desire for power and human nature, then Pericles' "moderate" approach and the "aggressive" approach of Cleon and Alcibiades should both be different manifestations of the same logic. In this regard, Thucydides' praise of Pericles while condemning the politicians who came after him reflects the contradiction in his political thought. For the changing geopolitical conditions in the post-Pericles period might have necessitated the expansion of the Athenian Empire in order to preserve it. This may be the point where his identities as both analytical historian and Athenian citizen come into conflict.

On the other hand, when examining the work as a whole, it becomes evident that Thucydides' impressions regarding how the war would conclude and Athens' fate are contradictory. While recounting the events prior to the Peace of Nicias in the Peloponnesian War, Thucydides alludes to Athens' capacity and determination to continue the war despite difficulties such as allied revolts and the invasion of Attica, yet he presents the military defeats and internal turmoil that occurred after the Peace of Nicias to the reader as harbingers of Athens' definitive defeat. In a sense, Thucydides' depiction of post-Peace of Nicias events in a pessimistic tone, despite the military situation not being entirely against Athens, can be interpreted as essentially a reckoning with the 'war is inevitable and legitimate' view he had adopted in the first phase of the war[173]. If the law of sovereignty that Thucydides accepted under the influence of sophists like Protagoras is based on the laws of nature, then from the moment the balance of physical power turned against Athens, the defeat of the Athenian Empire against the Peloponnesian League becomes inevitable. Accordingly, Thucydides narrates the historical events that occurred after the Peace of Nicias in the Peloponnesian War increasingly within a *tragedia* framework[174]. His intuitive grasp that the course of the war would end with Athens' defeat can be explained both by the sophistic thoughts that dominate his political style and by the Hippocratic approach he adopted when analyzing events. Just as a healthy organism is resistant to environmental threats, Athens under Pericles' leadership, purged of internal conflicts, succeeded in maintaining its empire throughout the entire Hellenic world. However, the misguided policies of politicians focused on personal interests and the political instability this created left Athens defenseless against the harsh conditions of war. Under these circumstances, Athenian society, whose social structure had deteriorated, lost its determination to continue the war as a *demos* united around an ideal and consequently became exposed to civil war (stasis) and various disasters (*pathemata*). In this regard, Thucydides' narratives reflecting a tragic understanding of the Peloponnesian War and the collapse of the Athenian Empire show similarities with his clinical observations regarding the

[173] Murray, "Greek Historians", 230.
[174] Murray, "Greek Historians", 230.

plague epidemic. Ultimately, medical texts narrate the collapse of the human organism when confronted with unforeseen epidemics, employing a specific content and style. Thucydides approaches the defeat that results from powerful *poleis*' desires to establish empires with a similar analytical approach.

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"Hammurabi's Eye Salve": King, Medical Knowledge, and Cultural Patina

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Abstract

This article examines the appearance of King Hammurabi's name in Mesopotamian medical prescriptions, arguing that such references functioned not merely as historical records but as deliberate strategies to legitimize medical knowledge. By invoking Hammurabi -a symbol of justice and wisdom- scribes and medical practitioners enhanced the authority of treatments, positioning them within a tradition of ancient and proven wisdom. The study situates this practice within broader intellectual and cultural frameworks, highlighting how medical texts served as vehicles for ideological and historiographical expression. Through the concept of "cultural patina," it illustrates how Hammurabi's legacy was repurposed to reinforce professional, institutional, and epistemic authority. The analysis reveals the intertwined nature of medicine, politics, and historiography in ancient Mesopotamia, demonstrating that references to royal figures were central to constructing credibility and continuity in medical discourse.

Keywords: Hammurabi, Scholarly Authority, Medical Knowledge, Cultural Patina

I. Introduction

Cuneiform medical documents from ancient Mesopotamia provide an exceptionally rich corpus for understanding the medical knowledge and practices of the period. These texts contain information on the diagnosis and treatment of diseases, ritual procedures of a magico-religious character, and the activities of medical specialists such as the *āšipu* and *asû*. Although most of the information concerning medicine and health management is preserved in medical texts, other categories of cuneiform sources also shed light on Mesopotamian medicine. A study by the Assyriologist Marten Worthington has demonstrated that references to medicine are not confined to "medical texts" alone but also appear in other types of documents.[1] Accordingly, aspects such as the organization of healing

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[1] Worthington 2009.

spaces, the economic conditions of practitioners, their activities beyond the medical profession, the role of divine signs in diagnosis, and methods of preparing remedies cannot be adequately understood through medical treatises in isolation. It is therefore essential to consider letters, administrative records, omen-divinatory texts, and literary compositions in conjunction with medical texts in order to reconstruct a fuller picture of Mesopotamian medicine.

On the other hand, the "non-medical" content of diagnostic and therapeutic texts is often overlooked. Yet these documents, in addition to information on health and disease, also provide valuable insights into the theo-political and socio-cultural structures of the time. For instance, certain medical records contain health-related data associated with prominent political figures of the past. This not only reflects the connection between medical knowledge and the intellectual milieus of institutions such as the palace and the temple, but also reveals the interest of healers or physicians in political circles. Accordingly, medical texts may contain information concerning power relations, ideological structures, and cultural representations. Mesopotamian medical texts, therefore, should be examined not merely as technical sources, but also as discursive practices that reflect socio-political and cultural contexts. In this way, the cultural depth of medical knowledge can be better appreciated.

In Mesopotamian historiography, references to legitimate kings reinforced the theo-political legitimacy of the ruling power while at the same time disclosing how the intellectual circles producing these texts represented the past and made sense of history.[2] Kings such as Sargon (2334-2279),[3] Naram-Sin (2254-2218), or Hammurabi (1792-1750), the "embodiment of justice," were depicted in historical-literary compositions of the first millennium as archetypes of "ideal kingship." Through these texts, such figures derived their significance not merely from political authority and military victory, but also from their privileged relationships with the gods and from the cosmic reverberations of their deeds.[4] The continuation of such compilatory narratives into the sixth century (the period when traditional Mesopotamian culture was beginning to decline) may be linked to an ideological desire of reigning kings to establish a historical kinship with the rulers and kingdoms of the past. On the other hand, scribes and institutional intellectuals did not merely serve the ideological legitimacy of power by reproducing the political, administrative, religious, and cultural patterns of the past. At the same time, they reinforced their own professional authority, maintained their monopoly over historical knowledge, and strengthened their epistemological bond with tradition. In this context, the production of texts

[2] Beaulieu 2013; Rubio 2009.
[3] All dates are BCE.
[4] Cwik-Rosenbach 1990; Liverani 1993.

functioned as a means of both political and intellectual identity formation, simultaneously guiding the very literate circles that produced them. As Foster has noted, in ancient Mesopotamia intellectual expertise positioned itself at the intersection of literacy, knowledge, and authority, a typical feature of the cuneiform literary tradition. Scholars could legitimize their intellectual knowledge and skills in various ways: by securing institutional benefits, obtaining royal patronage, or demonstrating to ruling and administrative elites that they were indispensable experts to be consulted.[5] In doing so, they constructed their visibility and authority on the basis of their accumulated knowledge and thereby shaped the forms of their relationships with the upper classes.

II. Medical Writing and Hammurabi

The ancient Mesopotamians, as can be discerned especially from the first-millennium corpus, recorded extensive information regarding the diagnosis and treatment of diseases. This practice of writing may aptly be described as “medical writing” (iatrography). Such texts not only transmitted knowledge of illnesses and their treatments but also embodied a distinctive epistemic mode of inscription that rendered knowledge durable through the medium of writing. In this sense, they functioned as instruments that linked knowledge to the past and thereby perpetuated tradition. Medical writing was thus articulated with theological and historical contexts. The “historical references” embedded in medical records may be seen as both an effort to preserve knowledge of diseases and an attempt to shape a specifically medico-historical memory.

In this context, a striking example is provided by a medical record dated to the first millennium, preserved in both Assyrian and Babylonian copies, which contains the phrase “the tested eye-salve of Hammurabi.”[6] This study has developed its arguments around this record. The association of Hammurabi -the Old Babylonian king renowned for his famous law provisions- with a medical treatment may be understood as more than a mere medico-historical reference. Rather, it can be seen as part of a broader strategy of re-functionalizing the symbolic authority of the past within new contexts, thereby employing it as a means of legitimacy. Accordingly, this research aims, within the framework of the examined case, to contribute to the analysis of the historiographical paradigms, ideological orientations, processes of intellectual authority-building,

[5] Foster 2025: 246-247.

[6] The formula for “Hammurabi’s tested eye-salve” appears in medical prescriptions from Assur, Babylon, Borsippa, and Uruk. These prescriptions are dated to both the first and second periods of the first millennium. See Steinert 2015: 132.

and epistemological rationales underlying the invocation of a prominent political figure in medical literature.

A diagnostic and therapeutic text concerning eye disorders, dated to the Neo-Assyrian period (c. 912-612) and originating from a library associated with the "Haus des Beschwörungspriesters" in Assur, is attested in BAM 159 (iv 16'-22'):

If a person's eyes are clouded, confused, and continually shed tears (and) the eyesight is diminished, to cure him, before Shamash you weigh out 1/4 shekel each of these seven plants in the scales: myrrh, "white plant," *rikibti arkabi*, *emesallim* salt, *kukru*, *šammi aší* (and) *nīnû* -mint. You grind (them) in honey (and) daub (them) on his eyes. Alternatively, if you daub a measured amount on dry, he should recover. (This is) the tested eye daub of Hammurabi.[7]

The text indicates that the remedy recommended for eye disorders of a temporary nature was an eye-salve said to have been (used?) by Hammurabi himself and tested for its efficacy in similar conditions. The phrase in the final line, *te-qit* IGI$^{MIN.MEŠ}$ *šá* ^{m}*Ḫa-am-mu-ra-bí lat-ku* ("Hammurabi's tested eye-salve"), explicitly attests to this practice.[8] Similar references to an eye-salve associated with Hammurabi also appear in other medical texts. For instance, while treatable medical symptoms such as tearing, redness, and blurred vision remain consistent, BAM 382:11', dated to the Neo-Babylonian period, contains only the phrase *te-qit šá Ha-am-mu-ra-bi* ("Hammurabi's salve"). Another medical prescription from Uruk, dated to the Late Babylonian period (4th century) and thought to belong to the library of the *āšipu* family descended from Ekur-zakir, records mar-*tú šá Ḫa-mu-ra-pí la-tík-tú*, that is, "a tested salve belonging to Hammurabi" (SpTU 2.50 12'-13').[9]

Scholars have tended to interpret the phrase "Hammurabi's tested eye-salve" primarily within a medical context. In other words, they have understood this designation not as reflecting a historical background in which the king's name conveyed authority and recognition, but rather as referring to an eye remedy either personally used by Hammurabi or prevalent during his reign. According to this view, the prescription either rests on a formula originating from Hammurabi's time, thereby long considered authoritative, or represents a recipe actually applied to Hammurabi himself and demonstrated to have therapeutic efficacy.[10] The assumption that this record should be interpreted primarily or

[7] Scurlock 2014: 365-366; Scurlock 2005: 193 (9.44).

[8] Biggs (1969: 99) argues that this expression refers not to a connection with the king's own health, but rather to the fact that the salve/remedy/prescription originates from the time of Hammurabi. See also Steinert 2015: 134; Geller and Panayotov 2020: 100.

[9] Scurlock 2014: 362-363; Geller 2010: 178 (footnote 13); Steinert 2015: 134.

[10] For example, see Steinert 2015: 132.

exclusively within a medical context must have found support in similar expressions attested in other medical texts. Indeed, in a Babylonian copy of an ophthalmological prescription dated to the second half of the first millennium (BM 41293+44866), which refers to Hammurabi’s mother, the phrase “[If] Hammurabi’s [mother] has suffered from an eye disease …” ([diš *u*]*m-mi Ḫa-ʾam-muʾ-ra-pi* igi^{II}-*šú* gig *he-pí*)[11] at first glance appears to allude to an ocular ailment affecting a member of the royal family.[12]

Whether the record in question in fact represents a medical prescription concerning the king or his mother’s eye disease cannot be determined with certainty on the basis of the available evidence. Accordingly, to argue that the text directly refers to a clinical case is an interpretation that must be approached with scholarly caution. Nevertheless, the possibility that the composition represents a copy of an earlier (original) source may reflect a deliberate intellectual inclination on the part of the scribe(s) to recirculate and recall Hammurabi’s name within a familial context. It is also well established that medical texts generally display a reluctance to include prescriptions directly linked to personal cases. Yet even in this instance, the reference to Hammurabi or to his mother -or the scribe’s deliberate choice to emphasize such a connection- may be understood as a strategy aimed at reinforcing the authority of the medical recommendation. In other words, by associating the prescription with a “notable case,” the text both enhanced its own validity and recirculated the symbolic power of Hammurabi’s name. The reinforcement of medical knowledge through a royal reference may thus be regarded as a step toward augmenting the iatrographic or medico-historiographical prestige of the text.

The question of whether Hammurabi’s tried-and-tested eye salve represents merely a practical prescription or rather a form of medical discourse serving additional purposes remains a matter of debate. The assumption of a direct and necessary link between the aim of a medical prescription and its content may in fact be problematic. As Arbøll has pointed out in his discussion of Kiṣir-Aššur, a skilled *āšipu*/*mašmaššu* active in the first millennium, there is not always a straightforward bridge between textual production, the cultivation of professional expertise, and actual clinical practice. This observation calls attention to the multifaceted character of medical records, which could function as educational material, intellectual capital, vehicles of traditional knowledge transmission, or instruments in the construction of professional prestige.[13]

[11] Steinert (2015: 133), however, proposes an alternative reading of the damaged line, suggesting that it may not refer to the king’s mother but rather to Hammurabi himself suffering from an eye disease: [*ina*] ʾ*u*$_4$!ʾ-*mi* (“[wh]en Hammurabi’s eyes were ill”).
[12] Geller 2010: 16.
[13] Arbøll 2021: 10-11.

Moreover, this mode of reference was not limited to invocations of the Babylonian king Hammurabi. Hammurabi was by no means the only renowned figure from the past to appear in medical texts. For instance, the names of the Uruk kings Lugalbanda and Gilgameš, who had ruled long before the Old Babylonian monarch, also occur in first-millennium medical prescriptions.[14] In fact, some prescriptions explicitly underscore a retrospective association with the authoritative expertise of a venerable ancient medical tradition. For example, in the colophon of a medical text most likely dating to the eighth century and concerned with fever affecting the head part, the following statement appears:

Proven and tested salves and poultices, fit for use, from the mouth of ancient antediluvian sages from Šuruppak, which Enlil-muballit, sage (*apkallu*) of Nippur, left (to posterity) in the second year of Enlil-bani, king of Isin.[15]

This record constitutes an excellent example of a retrospective strategy of legitimation within the corpus of Mesopotamian medical literature. Here, medical knowledge is anchored in "antediluvian sages," thereby linking it to a mythological past. Such a reference asserts that the prescription ultimately derives from humanity's ancient wisdom. The juxtaposition of a historical figure such as Enlil-bani, king of Isin, with a learned scholar bearing the *apkallu* title, like Enlil-muballit, lends the text both chronological and epistemological authority. The emphasis on being "usable, tried and tested" underscores the importance of empirical validation, suggesting that this knowledge had been confirmed through practical experience. Thus, the text weaves together a triad of mythological origin (antediluvian sages), historical legitimation (the reign of the king of Isin), and practical validation (tested formulas), thereby constructing a multidimensional web of relations that seeks to establish both cultural and scientific credibility. Medical knowledge was not confined to the prescriptions and formulas applied in practice but accrued authority through networks of legitimation and recognition over time. Systems of reference and identity markers elevated healing practices from ordinary acts to elements of a historical continuum. In this way, therapeutic texts, reinforced by the endorsements of prestigious figures, acquired both credibility and prestige.[16]

The term *latku* ("tested/proven"), as found in BAM 159 and comparable texts, highlights that the prescriptions represent not merely transmitted knowledge but remedies whose effectiveness had already been demonstrated in earlier practice. At the same time, it reflects the intention of medical experts such as the *āšipu*/*mašmaššu* who compiled the texts to assert their authority and

[14] For example, see Scurlock 2005: 22-23 (2.34); 37 (3.46) and 296 (13.76).
[15] Geller 2010: 17. Enlil-bani, ruler of Isin, reigned approximately between 1862 and 1839.
[16] For a similar record from the seventh century, originating from Ashurbanipal's library at Nineveh, see Böck 2007: 26.

safeguard their professional standing. It may likewise be understood as a response to concerns -whether from physicians, patients, or others- regarding the efficacy or potential side effects of the treatment.[17] In certain first-millennium medical texts, notes indicating that prescriptions were copied "from the tablets of Hammurabi's palace" further reinforce this idea. In BAM IV 322, copied in Assur by a chief priest (*šangû*) attached to the Assur temple, the formula "[prescriptions] from the palace of Hammurabi, king of the universe" appears alongside the phrase "[prescriptions] from the palace of Esarhaddon, king of the universe."[18] Between the two periods, the copied prescription contains the following statement:

Remedies (and) ritual pro[cedures? from the temple of] Gula. Tried, selected and checked procedures, which are suitable for use. (Whenever) you perform (them), they (the patients) will be alright. Guard the secret exorcism corpus so that no one may disclose (it)![19]

III. Scholarly Authority

Scribes or specialists, both during their literacy training and throughout their professional careers, drew extensively on the traditional writing heritage and earlier texts when producing new compositions or passages. However, this was not limited to mere copying or citation; through processes such as compilation, explanation, interpretation, and cataloging, they consciously intervened in the texts. In other words, a distinct "scribe effect" or creativity could manifest in textual production.[20]

The mention of King Hammurabi's name in ancient Mesopotamian medical prescriptions does not necessarily mean that these prescriptions were composed directly during his reign or that they pertained to his personal ailments. Such references to the king's name can be seen as part of a literary strategy, common in first-millennium texts, wherein royal (or kingly) names were employed to legitimize intellectual or institutional authority. In this context, expressions such as "the (eye) salve of Hammurabi, tried and proven effective," "the eye disease of Hammurabi or his mother," or "prescriptions belonging to Hammurabi's palace" may find their primary function on the medico-historiographical textual context in the efforts of scribes and their affiliated intellectual circles to consolidate authority -even if the assumption of a possible connection to the medical cases of the royal family is not entirely dismissed. The crucial point to emphasize here is that the name of Hammurabi functions as a

[17] Worthington 2009: 74.
[18] The text was most likely composed during the reign of the Assyrian king Esarhaddon (680–669). See Böck 2007: 26.
[19] Arbøll 2021: 261.
[20] Robson 2011: 562.

symbolic vehicle, connecting medical knowledge to the past and representing the transmission of ancient wisdom. Potential medico-historical experiences, by comparison, remain of secondary importance within this symbolic framework.

The use of historical references by medical specialists may also be understood as one of the ways to confer authority on medical knowledge: such knowledge had to be accurate, reliable, respectable, and beyond reproach. This approach can be seen, in a modern context, as analogous to practices in which scientific citations, institutional authority, or expert opinions are frequently employed -serving as a means for medical knowledge to establish its own legitimacy and acceptability. In other words, knowledge here establishes its own authority for purposes such as persuasion, building trust, gaining a competitive edge, or deflecting responsibility. This is akin to marketing a product today as "time-tested, inherited from the forefathers." After all, "a name is worth a thousand experiences," and "the prestige of the past is the prescription for the future."

IV. Hammurabi's Historical and Cultural Legacy

The Old Babylonian king Hammurabi functioned as a symbol of authority in Mesopotamian historiography after his death.[21] His memory as a politically and militarily successful, just ruler and lawgiver was preserved in the collective memory for centuries. The best-documented reign of the Old Babylonian period (circa 20th-16th centuries) belongs to Hammurabi, who succeeded his father, an Amorite ruler Sîn-muballit, on the throne. He transformed the kingdom he inherited into one of the most powerful states in Mesopotamia within a short period. Hammurabi, who represented the "ideal king" for both his contemporaries and later generations, was consistently praised through his inscriptions and year names for the reverence he showed to the gods, as well as for the public works he carried out for the benefit of his subjects. The correspondence of local rulers in Larsa with Sîn-iddinam and Šamaš-hazir demonstrates the importance Hammurabi placed on a well-organized administrative structure, while letters arriving from Mari to Babylon reveal that he was also a skilled statesman. One of his greatest achievements, the "Code of Hammurabi," immortalized his name both in the Ancient Near East and, after his death, down to the present day. Hammurabi, a great military leader as well, defeated regional rivals such as Mari, Larsa, and Ešnunna, as well as external powers like Elam, expanding his kingdom's borders as far north as the Tigris. In

[21] For example, see SAA 10, 155. In a letter sent to the Assyrian king Esarhaddon by a scholar named Ašaredu, the scholar informs the king that the tablet he (the king) was using or consulting is broken and in poor condition, and that a tablet seized from Babylon dating to the time of Hammurabi is in better condition. See Parpola 1993: 118.

doing so, he bequeathed a strong and well-established empire to his successor, Samsu-iluna, through his political and military genius.[22]

At the time of Hammurabi's death, the state he left behind was still in a phase of expansion and maintaining its upward momentum. Throughout his reign, his record of success had steadily progressed each year, and the limited setbacks he experienced were too insignificant to overshadow this overall rise. Consequently, at the moment of his death, there were no negative circumstances that could call his reign or legacy into question. This strong and illustrious profile of the king provided a solid foundation for his name to be remembered and venerated with respect by subsequent generations. Hammurabi, as a historical figure whose renown had long been recognized, whose legitimacy was never questioned, and whose prestige remained intact, acquired what could be described in Bourdieuian terms as "symbolic capital" in the world of ancient Mesopotamia.[23] In subsequent periods, those who drew on this capital in various ways leveraged it to gain economic, cultural, and social power. They instrumentalized Hammurabi's name, authority, and associated imagery to legitimize their own positions, consolidate political or institutional interests, and secure privileges in the production of knowledge.

A decisive factor in preserving Hammurabi's name and memory over the centuries was his Code, which legitimized both the (debatably) normative royal ideology and the social order. Just as in his military campaigns, Hammurabi emphasized peace and justice in his legal regulations, presenting an idealized image to subsequent generations. In the relief at the top of the law stele, the sun god Šamaš bestows a rod and a ring upon Hammurabi, symbolizing divine sanction for the king's actions while ensuring that the message reached a wide audience. This ideological-visual strategy played a critical role in the enduring transmission of his legacy across generations.[24] The black diorite stele inscribed with the 275 articles of the Code was preserved for approximately 500 years after the king's death until the Elamite king Šutruk-Nahhunte I captured Babylon in 1157 and took the stele to the capital, Susa. Copies of the written sections of the Code, however, continued to be reproduced for centuries, and even a thousand years later, in scribal schools and institutional scholarly circles.[25]

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[22] Sasson 1995: 901-915; Charpin 2004: 317-333; Charpin 2012: 1-70; Van De Mieroop 2005: 1-78.

[23] According to Bourdieu (1978), symbolic mechanisms can play a decisive role in social power relations, and in any field or domain, prestige, recognition, and authority can be acquired through symbolic means and strategies.

[24] Van De Mieroop 2005: 123-127; Charpin 2012: 154.

[25] In the 6th century, passages from the Code continued to be copied as part of scribal education (see Frazer and Adalı 2021: 257). Mieroop (2016: 148) argues that the fact that Hammurabi's Code was copied for centuries in Assyria and Babylon is not necessarily related to its continued use as a reference for legal decisions.

V. Enki, Hammurabi, and the Cosmic Health

In the Code of Hammurabi, it is explicitly stated that the god of wisdom, Enki/Ea -father of Marduk- granted Hammurabi intuitive insights.[26] Thus, the king's legal authority is presented not merely as the result of human capability but as a divine endowment.[27] The position of the god Enki is decisive at this point. He is the lord of the sweet underground waters (*abzu*) and, together with the gods Anu and Enlil, forms the most powerful triad of the pantheon. He is also renowned for both his creative power and his healing abilities. Enki possesses a wide range of high-level competencies, including the creation of the earth (*Enki and the World Order*), the creation of humanity (*Enki and Ninmaḫ*), and the prevention of humanity's annihilation (*Atrahasis*).[28] Thus, like King Hammurabi in his claims, Enki is positioned as the source of wisdom, justice, and cosmic balance. From this perspective, the Code of Hammurabi can be understood as a worldly reflection of Enki's wisdom.

Enki was one of the most respected deities among Mesopotamian healers (*āšipu*) especially after the second millennium. As the patron of both medical and social healing, he gained prestige as a god proficient in health and medicine.[29] This aspect of him is reflected in texts compiled on various subjects. For example, in second-millennium magical rituals intended to ward off evils, afflictions, and diseases, Enki's name frequently appears alongside those of Šamaš and Marduk.[30]The Sumerian myth of *Enki and Ninhursag* provides clues for connecting his spheres of competence with Hammurabi's role as the "cosmic authority of health," or, in other words, his mission as a "healing ruler" within the scope of his just character. In this mythological narrative, the city of Dilmun is depicted as a pure and unspoiled earthly paradise. There are no enemies, predatory animals, or the sorrows of old age; the vitality of youth prevails. Moreover, even physical ailments such as eye diseases and headaches find no place in this world.[31] This absence is associated with Enki's protective wisdom and healing power. In Mesopotamian thought, headaches and eye ailments were not merely biological phenomena but could also be interpreted as signs of a disruption in divine order or as divine punishment.[32] The lack of such medical afflictions in Dilmun, under Enki's authority, reflects his healing potency. BAM

[26] Marduk, the national god of Babylon and Hammurabi's guide, never failed to heed Enki's advice regarding the treatment of human ailments. In some cases, Enki even explicitly showed his son the course of action to follow. See Geller 2010: 27-29.
[27] Parpola 1993: 123.
[28] For a comprehensive study on the role of the god Enki in Sumerian ideology and mythology, see Espak 2015.
[29] Kağnıcı 2018.
[30] Foster 2005: 645.
[31] Enki ve Ninhursag (ETCSL 1.1.1): 11'-26'.
[32] Scurlock 2006: 12-13, 19.

520 38', dated to the first millennium, presents Enki as one of the principal deities to whom people turn and pray for protection against the disease-causing "evil eye."[33]

Enki's healing nature, which safeguards cosmic order and wards off disease and evil, combined with Hammurabi's conception of justice that repels hostility, transformed the king's governance into an extension of divine will. The Code of Hammurabi acquired historical significance not merely as a collection of legal regulations but as an ideological text representing the "ideal model of justice" in the Mesopotamian intellectual world. Rather than functioning solely as a legal compendium, this text was taught in educational institutions, circulated among scholars, and transmitted across generations through repeated copying.[34] In this way, the Code remained, until the end of the first millennium, a prominent example of a scholarly text rooted in royal propaganda within the intellectual tradition.[35]

It was not only the Code that propelled Hammurabi's fame far beyond his own era. In the second half of the second millennium, or the period referred to as Middle Babylonian, historical texts recounting Hammurabi's achievements continued to be compiled.[36] By the end of the second millennium, some rulers in southern Mesopotamia and the middle Euphrates region sought to strengthen their political positions and prestige by tracing their lineage to Hammurabi himself or to members of his dynasty.[37] The Neo-Babylonian dynasty also consciously appropriated this legacy.[38] The kings of this period, Nebuchadnezzar II (605-562) and Nabonidus, praised Hammurabi in their inscriptions.[39] Hammurabi's commemoration as a "wise king" in subsequent Babylonian literary tradition, and the characterization of his Code as "a source on the esoteric matters of Babylonian thought," were used by administrators, physicians, diviners, and scholars as a source of legitimacy.[40] Hammurabi's name and fame had acquired a strong

[33] Geller and Panayotov 2020: 185.
[34] Hurowitz 2011.
[35] Jursa 2004: 67.
[36] Rutz and Michalowski 2016.
[37] Van De Mieroop 2005: 130-131.
[38] In the Hellenistic period (323-332), the situation changed. During this time, for example, in the textual productions of Marduk priests in Babylon, there is no evidence of a pursuit of authority, power, or prestige through the names of ancient Mesopotamian kings, whether to maintain religious and social privileges or to preserve old traditions. The names of kings like Hammurabi no longer carried influence or value within the new cultural context of Hellenistic historiography in the region. References to their names in texts had lost their significance by this period. See Debourse and Jursa 2025.
[39] Frazer and Adalı 2021: 234, 236 (i 32'-33') and also 257.
[40] Van De Mieroop 2016: 174-176. For example, in the colophon of a first-millennium medical text catalog, Esagil-kīn-apli, a prominent eleventh-century physician from the city of Borsippa, could identify himself as a descendant of Asalluḫi-mansum, one of the scholars under the patronage of King Hammurabi.

"cultural patina" effect[41] within the intellectual circles of his time. References repeated across various types of texts and contexts -not only in political and legal documents-reinforced his historical and cultural authority. Direct forms of glorification, such as deification or naming children after him (e.g., Hammurabi-ili), made this patina visible,[42] while indirect references, not central to the narrative, achieved the same effect in a subtler and more metaphorical manner.[43] Each reference not only strengthened the authority of the text but also served to bolster the credibility and legitimacy of the scribes and intellectual circles compiling it, situating them within a historical and cultural framework. In this context, Hammurabi's name gradually became more than a historical figure; it evolved into a symbolic brand carrying the cultural and ideological authority of the texts.

VI. Assyro-Babylonian Scholarly Interaction

From the final quarter of the second millennium onward, the rise of the Assyrian state generated strong demand over Babylon, the intellectual capital of the Near East. During this period, the Assyrians collected a large number of cuneiform tablets from Babylon's extensive repository of knowledge, encompassing both literary works and scientific texts. This process of collection was not limited to peaceful exchanges; it was often shaped by the seizure of tablets as war booty. The most vivid example of this is the Tukulti-Ninurta Epic, which recounts the Babylonian conquest around 1207. While depicting the Assyrian king's glorious victory, the epic also draws attention to the "countless cuneiform tablets" taken from the city of Babylon, among which medical texts were included.[44] The Assyrian interest in Babylonian scientific tablets and their policy of incorporating them continued into the first millennium. A significant portion of the medical texts in the renowned library at Nineveh, in particular, had been looted during King Ashurbanipal's campaigns against Babylon.[45] In this process, both Assyrian kings and Assyrian institutional intellectuals and producers of written culture became familiar with Babylonian texts and their content. Moreover, among the war booty through which the Assyrians established their hegemony over Babylon in the first millennium, the presence of literate Babylonians relocated to various centers of the empire played a decisive role. The compulsory or voluntary intellectual productions of these individuals contributed

[41] I will discuss this concept in the conclusion section in the context of the article's arguments.
[42] Van De Mieroop 2005:127.
[43] For example, in an Old Babylonian literary text, a man who does not reciprocate a woman's love swears an oath by the goddess of love, Nanaya, and King Hammurabi to prove his sincerity. Calling upon the king's name to make a refusal credible reflects Hammurabi's identity as synonymous with justice, honesty, and integrity. His name functioned as one of the most powerful instruments of legitimacy and trust to persuade the interlocutor. For the relevant literary text, see Held 1961: 9 (iv 6'-7').
[44] Machinist 1978: 128 (Tukulti Ninurta 2'-11'). Also see Heeßel 2017: 368-369.
[45] Parpola 1983: 11.

significantly to the recognition of Babylonian wisdom and cultural universe within Assyrian circles.[46] Through texts produced in diverse fields, they acquired extensive knowledge of Babylonian history, culture, literary traditions, scientific approaches, and medical thought.[47] This also encompassed Hammurabi's deeds, fame, and legacy.

References to the king in hymns, prayers, literary, and medical texts dated to periods after the death of the Babylonian king not only enhanced the text's value and prestige but also reinforced its functionality. This strategy played an important role in the text's external context as well: intellectual circles of the scribal class -such as physicians, diviners, or priests- could use these references to bolster their professional reputation, social and religious standing, and even their institutional affiliation and privileges. In cuneiform cultures, this relationship functioned as one of the fundamental norms of historiography. As long as cuneiform texts were produced, social and intellectual elites sought to maintain their power and prestige through the authority of kings. In this context, the mere mention of kings' names in texts could serve as a decisive historiographical element ensuring the continuity of prestige.

VII. Medicine, Politics, and Legitimacy

In the historiography of ancient Mesopotamia, the relationship between medicine and politics was pronounced. Health care was regarded both as an individual medical and magical practice and as a matter directly linked to the legitimacy of the state and public authority. The production and recording of medical knowledge largely depended on the support of palace and temple institutions, yet the decisive factor was the ideological framework surrounding this knowledge. Being healthy was directly associated with political legitimacy and divine approval, while illness symbolized deprivation of the gods' support, and recovery represented its restoration. Consequently, skilled physicians, advanced medical knowledge, and organized health services were perceived as indicators of a strong and legitimate political order.[48] In this context, the appearance of Hammurabi's name in medical prescriptions was part of the mutual legitimization between "royalty and medicine."

The Code of Hammurabi was a unique source reflecting the relationship between medicine and politics from a legal perspective. In particular, §§206-225 demonstrate that health services were regulated and, to some extent, overseen by the monarchy. These legal provisions highlight the importance and prestige of the

[46] Fincke 2017: 382-388.

[47] Medical texts were particularly prominent in the libraries of major cities of the empire, especially in Kalhu and Huzirina, as well as Nineveh. See Fincke 2017: 391-392.

[48] For a study addressing the relationships between first-millennium Babylonian historiography and knowledge of illness, see Kağnıcı 2019.

physician's (*asû*) social status.[49] Even specific medical procedures, such as eye surgery, were explicitly regulated by law. For instance, the principle that the hand of a physician who failed in the eye surgery of an *awīlum* should be cut off (§218) reflected both the gravity of the physician's responsibility and the social risk associated with medical interventions. Conversely, successfully performed treatments were rewarded with high fees, thereby incentivizing the physicians' expertise and effectiveness.[50] Hammurabi's association with medicine was not limited to the Code. In a report sent to the king of Mari, a governor is recorded as complaining to Hammurabi that "patients were not anointed" and "faces were not examined." These statements reflect the standard medical practices of the period and also indicate that health services were regarded as being directly under royal authority. In other words, a poorly functioning healthcare system in the ancient Near East was a matter that could undermine not only the physicians but also the political reputation of the kings themselves and their allies.[51]

Although there is no direct evidence that Hammurabi possessed medical knowledge or experience, the ways in which he was associated with medical knowledge and their cultural impact contributed to the formation of his cultural patina, enhancing the remembrance and fame of his legacy throughout the first millennium. The appearance of his name in medical texts integrated a powerful form of cultural capital into medical knowledge. In this context, medical data functioned not only as accurate, functional, and valid knowledge related to nosological, pathological, or therapeutic domains but also as a cultural -and in a sense literary- tool for constructing authority, precisely because it belonged to a deep-rooted, prestigious, and intellectual tradition. Records such as the "tested eye ointment of Hammurabi" or "prescriptions from the palace of Hammurabi" can be seen, at least in part, as elements of a strategy aimed at deriving benefit or gaining authority. This reflects a sophisticated approach in ancient Mesopotamian medical practice that can be described as a form of "medical epistemic assurance." The addition of the "tested" or "proven" formulation by the *āšipu* likely indicates that the existing prescription underwent a process of "clinical adaptation," meaning that the original formula was updated with new ingredients, different dosages, or modified preparation techniques. If so, the physician would have faced the dual challenge of preserving traditional knowledge while legitimizing innovative practices. The Akkadian term *latku,* meaning "tested," reflects the practitioner's own experiential verification, while the addition of a prestigious figure such as Hammurabi activates a "dual assurance mechanism":

[49] Geller 2010: 57.

[50] The eye surgery referred to in the Code of Hammurabi was likely understood as the removal or treatment of cataracts in one or both eyes using a sharp, pointed instrument. See Geller and Panayotov 2020: 34.

[51] Geller 2010: 65.

the authority of the contemporary practitioner combines with historical prestige to create a form of "hybrid legitimization." This approach can be seen as a pragmatic strategy for establishing authority that blends "traditional origin mythology" with "current clinical experience" to minimize the risks of medical innovation. In this way, both a sense of deep-rooted wisdom and demonstrated efficacy could be conveyed to patients, colleagues, and institutional counterparts.

Such records may contain data capable of reflecting the cultural memory, concepts of political authority, and persuasion strategies of the society in which the medical texts were produced. In medical content, Hammurabi functions not merely as a king but as a traditional cultural patina that supports the reliability and validity of prescriptions, the prestige of the physician, and ultimately the authority of scientific knowledge. Attaching the label "Hammurabi's eye ointment" to salves recommended or used for eye disorders could visibly institutionalize the otherwise anonymous and uncertain medical origin of the remedy, effectively granting it a mark of professional endorsement and quality. However, this was not a simple or temporary medical strategy. Mesopotamian physicians understood the long-standing, historical, and traditional relationship between Hammurabi and medical knowledge and consciously incorporated elements of cultural prestige into the medical content of their texts. These physicians were not only experts in diseases and treatments but also intellectuals trained within the written tradition, serving as its bearers and inheritors. Consequently, it is entirely plausible that their texts reflected the dominant literary conventions characteristic of intellectual circles in major cities such as Assur.

The appearance of literary or political figures' names in medical prescriptions, even when not directly relevant to the medical context of the text, demonstrates that *āšipu* and *asû* were not merely technically skilled specialists in medicine. It suggests that these practitioners possessed competence in cultural forms of representation and, in some cases, knowledge in other domains -or at least a willingness to apply knowledge from other areas within the framework of their medical expertise. These specialists could function as multidisciplinary intellectual actors, demonstrating proficiency not only in the core domains of disease and treatment but also in divination, ritual practices, and various aspects of daily life.[52]

This multi-faceted specialization cannot be explained solely by individual interests, personal abilities, or economic motivations; it also stemmed from the shared knowledge pool and repertoire of practices within the epistemic

[52] For example, see Worthington 2009: 63-65 regarding the interdisciplinary activities of the Old Babylonian medical specialist Šamaš-muballit.

community. Arbøll has shown that an *āšipu*, throughout both training and professional life, authored, copied, or compiled texts not only on medical prescriptions but also on various fields that could enhance their medical knowledge.[53] Thus, referencing the names of ancient kings in medical content concretizes the layering of historical authority and cultural memory. Specialist *āšipu* and *asû* represented the most prestigious groups among the scientific professions in the Neo-Assyrian period. In particular, the former conducted rituals aimed at diagnosing and treating diseases through a combination of magical and medical methods, addressing not only the palace but also the city or the community.[54] Therefore, the *āšipu* was an indispensable part of not only the palace milieu but also the social order of the city, religious institutions, and collective ritual life. Their activities extended far beyond individual therapeutic practices, serving to maintain balance and integrity within both societal and cosmic order.

VIII. Cultural Patina as a Concluding Perspective

I propose the concept of "cultural patina" (which can, in one sense, also be defined as "historical patina") as a useful analytical tool in this context. Cultural patina, much like the marks and transformations that accumulate aesthetically, culturally, and functionally on the surface of a material over centuries, refers to the layers of meaning, value, authority, and credibility that accumulate on a cultural element -whether an idea, text, symbol, institution, person, or work- over time as a result of various social, political, and intellectual interactions. This accumulation transforms the raw or original form into something that is considered "valuable," "authentic," "prestigious," or "sacred" within collective memory -a form of socio-cultural oxidation. The socio-cultural weight, trust, and prestige acquired over time can be articulated through appropriate relational frameworks. Achieving this requires linking continuity, historical and cultural accumulation, and perceived value (rather than intrinsic essence) with the dual processes of referencing and argument reinforcement, thereby legitimizing and granting authority.

The name of Hammurabi, much like the patina that gradually formed on his 2.25-meter basalt stele, emphasizing its authenticity, accumulated layers of meaning and value over the centuries. In texts composed after his reign, his name does not merely denote a king; with each new layer added, it also conveys concepts of justice, wisdom, and authority. Over time, this "cultural patina" gained significance, extending Hammurabi beyond his immediate historical context and transforming him into a brand "valorised by time" in the collective

[53] Arbøll 2021.
[54] Arbøll 2021:7.

memory of Mesopotamia. This process of construction can even be traced in Hammurabi's own words:

I put my good name in the mouths of the people (in order) that they proclaim it daily like (that of) a god and that it not be forgotten, forever.[55]

A bilingual (Sumerian-Akkadian) inscription from Sippar, dated to Hammurabi's reign, can be seen as evidence that the king deliberately constructed his name as a cultural value to be kept alive across generations. Indeed, his name occupied a central position in both written and oral knowledge transmission[56] and dissemination within literate circles, collaborative networks among specialists, and educational and professional training processes, ultimately becoming a source of intellectual, cultural, and even medical authority.

This article has aimed to examine the occurrence of Hammurabi's name in medical literature, situating it within a context comparable to that of other ancient Mesopotamian kings. At the same time, it seeks to highlight the institutional power and intellectual competence of the authors, the authority of medical knowledge, and medico-historical writing practices through the lens of cultural patina. This approach demonstrates that the name references in medical texts were not merely intended for knowledge transmission. Rather, they also represented a tangible manifestation of historical and cultural continuity with the past, as well as layers of contemporary credibility and legitimacy. In this way, the possibility of a new medico-historiographical research field at the intersection of ancient Mesopotamian medical history and textual analysis becomes conceivable. For example, in the Hammurabi Code, the physician is accountable to the king, whereas in medical prescriptions, the king becomes a source of authority for the physician. This reverse relationship nourished the concept of "mutual legitimization."

[55] Frayne 1990: 336 (RIME 4 3.6.2: 70'-81'). Although these lines were directed toward the people of Sippar, they reflect Hammurabi's broader vision.

[56] Foster (2005: 249) has suggested that the oral transmission of knowledge can be at least as effective as its written dissemination.

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Some Issues Concerning Medicine and Health Bureaucracy in the Ancient Near East

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Abstract

Health is a topic as old as human history itself. However, it can be said that knowledge about the history of medicine increased significantly after the invention of writing. The ancient Near East, where writing was invented, also witnessed significant developments in medicine, as well as in many other fields such as astronomy, mathematics, law, and literature. The first written records of healers and surgical procedures can be found in ancient Mesopotamian sources such as the Code of Hammurabi. The first legal regulations concerning healers who performed surgical procedures and treated fractures, known as *asu*, constitute the first examples of today's malpractice practices. However, it is seen that *āšipu*lar, who were more authoritative than *asû*, had more medical knowledge and patient responsibilities. The influence of the temple is evident in the education of ancient Mesopotamian healers, who were also temple priests.

Today, healthcare services are generally provided by a developed healthcare bureaucracy under the control of governments. However, the healthcare system in the ancient Near East is not well known and is a subject of curiosity. Although our knowledge of the temple-based healthcare system in ancient Mesopotamia is limited, it is clear that the Hittites also had a hierarchical healthcare system. The term A.ZU, derived from the Akkadian word *asû*, means 'physician' in Hittite. GAL LÚ.MES A.ZU refers to the position of chief physician. The existence of a palace-centred healthcare bureaucracy is evident from the wide range of titles given to Hittite healers of varying statuses. It is known that Hittite medical practices were influenced by those of ancient Mesopotamia. The existence and signs of the Hittite healthcare system also provide clues about the healthcare system in ancient Mesopotamia. In Egyptian medicine, there was a palace-centred healthcare system similar to that of the Hittites. In Egyptian medicine, where surgery and specialisation developed, it is thought that the palace chief physician was at the

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head of healthcare administration. This study will investigate the healers and healthcare workers who laid the foundations for today's healthcare bureaucracy in the mysterious civilisations of the Near East. The healers and healthcare system that developed under the control of the beliefs and administrative systems of the period will be evaluated.

Keywords: Health Bureaucracy, Ancient Medicine, Mesopotamian Medicine, Hittite Medicine, Egyptian Medicine

I. Introduction

Since the dawn of humanity, humans have been engaged in a struggle for survival. In this context, they have sought to understand death, which threatens life. This can be seen in the drawings related to death found in the wall paintings of the Lascaux Cave in France (15,000-10,000 BCE)[1]. Unable to find a cure for death, they developed beliefs in life after death, along with burial practices and rituals. As in the example of Çatalhöyük, people who transitioned to settled life developed the practice of burying the dead beneath their homes and cultivated a cult of ancestors[2]. While striving to make sense of death, humans also sought remedies for diseases that threatened their health and led to death. Life, the opposite of death, and health, which is a necessity of life, have always been on people's agenda. Although the history of medicine, which deals with health issues, is expected to be as old as human history, the sources we have are largely based on the period after the invention of writing.

With the invention of writing, humanity's oral memory began to be recorded. The first records related to medical topics belong to the Sumerians, but the Akkadians, Babylonians, and Assyrians, who followed in their footsteps, left us many written sources on ancient Mesopotamian medicine. The Hittites, who drew on ancient Mesopotamian medicine and added their own unique interpretations, also developed their own understanding of health. The ancient Egyptian civilisation, which developed its own unique understanding of medicine in a geography contemporary with the ancient Mesopotamian civilisation and protected from external threats, also existed. The advanced level of anatomical knowledge, influenced by the mummification practices in their belief system, played a role in the development of surgery in Egypt.

[1] Parıltı, U. and Uhrı, A. (2018). "Geçmişten Bugüne Ölüm Olgusuna ve Ritüellere Bilimsel Yaklaşım". Türkiye Bilimler Akademisi Arkeoloji Dergisi, Special Vol, p. 15.

[2] Hodder I. and Frey J. (2018). *İnsanlığın Doğuşunda Din-Çatalhöyük Örneği*. Dilek Şendil (Translation). İstanbul: Alfa Yayınları,,p. 42.

The aim of this study is to evaluate the medical understanding and health structures of ancient civilisations in the Near East, which serve as an important bridge between humanity's pre-literate period and modern medicine. In this context, the medical understandings of the ancient Mesopotamian, Hittite and Egyptian civilisations have been examined.

II. Medicine and Health Bureaucracy in Ancient Mesopotamia

By inventing writing, the Sumerians opened the door to the development of civilisation. At the end of the 4th millennium BCE, they laid the foundations for a developed civilisation in Mesopotamia, according to the conditions of the time. Along with writing, the Sumerians also recorded their existing thought structures and accumulated knowledge in the field of health. In the Epic of Gilgamesh, the subject of death, which is the opposite of health and life, is questioned by Gilgamesh and attempts are made to overcome it[3]. In the 11th tablet of the epic, the idea that the snake can remain young by shedding its skin after eating the herb of immortality is considered to be the first written record of the idea of fighting against disease and death in the history of medicine. Today, the snake is also accepted as a symbol of health, either in a single or double spiral form[4].

The ancient Mesopotamians viewed death bad. They also viewed the diseases that caused death as evil and attempted to understand them. They sought solutions by associating diseases they could not overcome with abstract concepts such as evil spirits, demons, and ghosts[5].

Particularly after the Old Babylonian period, there was a development towards individualisation and privatisation parallel to the development of the concept of private property among the people of Old Mesopotamia. The concept of private property contributed to the development of trade while enabling privatisation in the economy. This economic and social development in the geography of Old Mesopotamia would also bring the idea of a personal god to the fore in the belief system. An example of this is the fact that the personal god of the Old Babylonian king *Hammurabi* was the Sun God *Shamash*[6]. The personal god has a protective role over humans. However, for this to happen, the individual must fulfil their duties and rituals towards the personal god. If these

[3] Landsberger, B. (2010). *Dünya Edebiyatından Seçmeler: Gılgamış Destanı*, Muzaffer Ramazanoğlu (Translation). Ankara: Milli Eğitim Bakanlığı Yayınları, p. 10-14.
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[6] Klengel, H. (2019). *Kral Hammurabi ve Babil Günlüğü*. Nesrin Oral (Translation). İstanbul: Totem Yayınları, p. 123-169.

duties are not fulfilled, the protection of the personal god is lost, and it is also possible for the personal god to punish the individual through illness[7].

Evil spirits and demons can inflict harm on people by causing illness. Personal gods can protect people from these bad effects. It is seen that *Namtar*, one of these demons, causes plague, and Idpa, one of the demons, causes malaria. In order to eliminate the negative effects of these evil spirits and demons on people, the people of Ancient Mesopotamia resorted to magic. Sometimes it was thought that evil-minded people practiced "black magic" to influence people through evil spirits, so healers felt the need to practice "white magic"[8]. The *Āšipu*s were called white magicians by Scurlock[9]. They try to drive away the evil spirits or demons that have been identified as the cause of the disease by possessing the person through rituals and spells[10]. *Āšipu* have the status of priests and can cooperate with *asūs* in the treatment of the disease. Although inferior in status, the group of healers called by the Sumerian word "*asû*", which means "one who knows the waters", are specialized in herbal medicines[11]. In addition, the name *asû* is mentioned as an occupational branch in the status of surgeon who performs surgical interventions in the Hammurabi Code. This shows that *asūs* had surgical as well as herbal treatments. There is no provision about *āšipu* in these laws[12]. The fact that *āšipu* was a high priestly healer suggests that they may have been subject to other legal codes. Having a wide range of symptoms and knowledge about diseases, *āšipu* were considered to have the status of physicians[13]. They have the main responsibility for the management of the disease[14]. This gave them wide authority and prestige. A third discipline is referred to as "*kāšipu* (KA.PIRIG)". With a job description as a diagnostician and

[7] Alper, *op.cit.*, p. 1; Gündüz, A. (2002). *Mezopotamya ve Eski Mısır Bilim Teknoloji Toplumsal Yapı ve Kültür*. İstanbul: Büke Yayınları, p. 302; Sayılı, A. (1991). *Mısırlılarda ve Mezopotamyalılarda Matematik, Astronomi ve Tıp (3.Baskı*). Ankara: Türk Tarih Kurumu Basımevi, p. 415-416; Diri, B. (2022). *Eski Mezopotamya'daki Hastalıkların Modern Tıpla İlişkisi (Gastoenteroloji, Nöroloji, Psikiyatri, Enfeksiyon Hastalıkları)*. (Unpublished Master's Thesis). Ondokuz Mayıs Üniversitesi Sosyal Bilimler Enstitüsü Tarih Anabilim Dalı, Samsun, p. 14.

[8] Gündüz, *op.cit.*, p. 300; Mandacı Uncu, E. (2013). "Eski Mezopotamya'da Tıp", *History Studies*, V/5, p. 114.

[9] Scurlock, J. and Andersen, B.R. (2005). *Diagnoses in Assyrian and Babylonian Medicine.Ancient Sources, Translations, and Modern Medical Analyses*, Urbana-Chicago: University of Illinois Press, p. 304.

[10] Sayılı, *op.cit*., p. 413.

[11] Arıhan, S.K. (2003). *Antik Dönemde Tıp ve Bitkisel Tedavi*. (Unpublished Master's Thesis). Ankara Üniversitesi Sosyal Bilimler Enstitüsü Arkeoloji Bölümü Klasik Arkeoloji Anabilim Dalı, Ankara, p. 7-19.

[12] Tosun, M. and Yalvaç, K., (1975). *Sumer, Babil, Assur Kanunları ve Ammi- Saduqua Fermanı*. Ankara: Türk Tarih Kurumu Yayınevi, p. 206-207.

[13] Scurlock and Andersen, *op.cit.* ,p. 7.

[14] Diri, *op.cit*., p. 22.

prognostician, he is thought to have the ability to distinguish between standard and deviant prescriptions[15].

Ancient Mesopotamian medicine includes two main groups: drug therapy and magical approaches. There is also a large gray area that includes both magical treatment and pharmaceutical prescriptions. The *Āšipus* were particularly active in these gray areas[16]. One of the general features of ancient Mesopotamian medical texts is the principle of opposition, such as cold versus hot, dry versus wet. In addition, although they contain magic and medical rituals, they are quite different in form and meaning from the exorcism spells in Sumerian-Akadian texts. It can be said that the magical and medical subjects in the medical texts complement each other[17].

In order for the ritual to be performed by the *Āšipu* to be certain, it is necessary to determine which god or evil spirit the patient is associated with. For this, the *āšipu* must have a good knowledge of prognosis and symptoms. It is possible that the causes of illness have a religious origin[18]. However, especially infectious diseases and harmful conditions may have been associated with gods and evil spirits in order to take effective measures against the spread of the disease. To give some examples: Ishtar, the goddess of love, to draw attention to sexually transmitted diseases, *Nergal* against the dangers of disease in army camps, *Shulak*, the toilet demon, to draw attention to infectious diseases by drawing attention to the cleanliness of toilets, and Adad for infectious diseases associated with harsh weather and floods. The emphasis on the hands of these gods and demons indicates that the normal functioning of the patient has been disrupted and that there is a pathological condition. It is also thought to be associated with the hands of gods, demons and evil spirits in order to explain the patient's condition to an ordinary person and to make the disease more understandable by classifying its religious aspect[19]. This issue should be carefully evaluated in current disease research in the texts.

The oldest tablets found in Mesopotamia are Sumerian tablets from Nippur at the end of the third millennium BC. The tablets contain rational medical prescriptions and do not include abstract concepts such as demons and magic[20]. At the end of the 2nd millennium BC, abstract concepts increase in medical

[15] Geller, M. J. (2021). "Alternative Voices in Babylonian Medicine". *Claroscuro,* 2(20), p. 21.
[16] Schwemer, D. (2010). *Altbabylonische Therapeutische Texte*, Schwemer, D. and Janowski, B. in: Texte zur Heilkunde (p. 35-38), TUAT NF5. Gutesloh: Verlaghaus, p. 39-41.
[17] Geller, *op.cit*., p. 5.
[18] Heeßel, N.P. (2000). *Babylonisch-Assyrische Diagnostik*. AOAT 43., Münster, p. 75-96; Geller, *ibid,* p. 6.
[19] Geller, *ibid,* p. 11.
[20] Kramer, S.N. (2002). *Tarih Sümer'de Başlar, Yazılı Tarihteki Otuzdokuz İlk* (2nd edition). Hamide Koyukan (Translation). İstanbul: Kabalcı Yayıncılık, p. 86.

texts[21]. A tablet written in Sumerian during the Old Assyrian period at the beginning of the 2nd millennium BC contains information about medicine making and the diseases for which it should be used[22].

In addition, most of our knowledge of ancient Mesopotamian medicine is derived from *Asurbanipal*'s library unearthed at Ninive. King *Asurbanipal* (668-627 BC) collected the originals or copies of important cuneiform sources of the period in his library[23]. Among these sources, the 40-tablet *Sakikkû*/SA.GIG series written by *Esagil-kin-apli*, who lived in the Middle Assyrian period, is very important. It contains very important diagnostic and prognostic information with 3000 records[24]. Although *Esagil-kin-apli* claims that he wrote the *Sakikkû* series with divine inspiration and divine power, it was created as a continuation of ancient medical series with additions and subtractions[25]. The eastern transmission of this ancient knowledge of ancient Mesopotamian medicine and the medicine of Hippocrates in Ancient Greece shared a common time period from the 8th century BC onwards. However, it is not clear that there was any interaction between them[26].

In addition to sources such as the *Sakikkû* series, the Code of Hammurabi, one of the most important legal texts of Ancient Mesopotamia, provides information from the 18th century BC, especially on medicine and surgery[27]. It is believed that the laws, which contain talion (tit-for-tat) penalties to deter fakes and incompetent persons, were enforced after a court decision[28]. In addition, it is understood that surgical interventions such as the use of bronze scalpels, eye surgeries, fracture treatments and wound follow-ups were performed.

With the transition to alphabetic writing, cuneiform was abandoned and forgotten for a long time. These sources were rediscovered in the 19th century when thousands of tablets were analyzed and deciphered in Akkadian following archaeological discoveries. Research on this subject has shown that Mesopotamian medicine had a highly developed knowledge, especially in diagnosis and prognosis[29]. With new studies on ancient Mesopotamian cuneiform

[21] Bayat, A.H. (2010). *Tıp Tarihi*. İstanbul: Merkezefendi Geleneksel Tıp Derneği Yayınları, p. 52; Diri, *op.cit*., p. 6.
[22] Sayılı, *op.cit.*, p. 424.
[23] Bayat, *op.cit.*, p.49.
[24] Scurlock and Andersen, *op.cit.*, p. 7.
[25] Erdem, F. (2020). *Eski Mezopotamya'da Kehanet Geleneği*. (Unpublished Doctoral Thesis). Pamukkale Üniversitesi Sosyal Bilimler Enstitüsü Tarih Anabilim Dalı, Denizli, p. 199.
[26] Burkert, W. (2017). *Yunan Kültüründe Yakındoğu Etkileri*. Mehmet Fatih Yavuz (Translation). İstanbul: İthaki Yayınları, p. 71-117.
[27] Tosun and Yalvaç, *op.cit.*, p. 206-207.
[28] Bayat, *op.cit.*, p.52; Diri, *op.cit.*, p. 8.
[29] Bayat, *ibid,* p.52; Diri, *ibid,* p. 8.

documents, it will be seen that diagnostic knowledge of many diseases existed in Mesopotamia before Hippocrates.

III. Medicine and Health Bureaucracy in Hittites

In the Hittite archives, there are no dense cuneiform documents on medicine as in Mesopotamia. Especially in the royal archive of Boğazköy, there is information to be obtained from between the lines of other documents. The understanding of the cause of disease is similar to that in Ancient Mesopotamia. *Muršili* II, in his plague prayer, lists the possibilities that could cause an epidemic and gives an idea about the Hittite people's mindset about the disease. These include the neglect of the duties of the gods, the unjust murder of *Tatḫalya* at a young age, the neglect of the sacrificial ritual to be performed at the Euphrates (Mala) river, and the carrying of the plague with the captives he brought with him after his campaign against the Egyptians to avenge the murder of Prince *Zannanna*, the son of his father *Šuppiluliuma* I[30]. Here, the causes of the disease are seen to be highly rational, ranging from faith-based, lawlessness that disturbed the conscience of the people to the transmission of the plague through contagion.

In the Hittite belief system, there are "two opposing dimensions". Human life is at stake between the sky, which is considered clean, and the earth, which is considered unclean. There is the idea that evil spirits in the underworld come out of caves and cracks in the earth and harm people and cause disease. They perform many rituals to prevent this. In fact, the relationship between some diseases and these abstract concepts has become so close that instead of the names of the diseases, they are called by the name of the related evil spirit and god. In the connection between illness and belief, there are doctors who are healers, but less developed than in Mesopotamia[31]. The word doctor (healer) in Hittite texts corresponds to the Sumerian word "A.ZU". Beliefs about the genesis of disease and approaches to illness are similar to those of ancient Mesopotamia. The Hittites copied Babylonian medicine. Over time, they also introduced their own interpretations[32]. However, unlike in Mesopotamia, the place of training physicians in the Hittites was the palace. They were trained in a master-apprentice relationship[33]. As in Mesopotamia, treatments in Hittite medicine ranged from magic to the application of herbal medicines[34].

[30] Ünal, A. (1980). "Hitit Tıbbının Ana Hatları". *Belleten,* XLIV/175, p. 479.
[31] Ünal, *ibid,* p. 484.
[32] Ünal, *ibid*, p. 476.
[33] Ünal, *ibid,* p. 481.
[34] Koç, İ., Atakuman, Ç., Tanyeri Erdemir, T., Erdem, D. (2006). *Hititler*. Ankara: ODTÜ Geliştirme Vakfı Yayıncılık, p. 48.

GAL $^{LÚ.MES}$A.ZU: Head of physicians, ^{LÚ}A.ZU SAG: Chief physician", ^{LÚ}A.ZU TUR: Assistant/ junior physician; points to the hierarchical organization of physicians. The existence of a health bureaucracy in the Hittite health services can be mentioned[35]. ^{MUNUS}A.ZU: There is a female physician. They are especially involved in healing rituals. In the documents from the Hittite archives, there are also the names of officials who took part in the treatment of diseases with magic: ^{LÚ}SANGA: Priest", ^{LÚ}AZU: Sorcerer, seer, fortune teller, ^{MUNUS}ŠU.GI: Old woman, sorceress, ^{LÚ}MUŠEN.DU: Bird catcher, soothsayer, ^{LÚ}IGI.MUŠEN: Seer, bird-catcher, ^{LÚ}HAL: Oracle[36]. Although these people did not have rational attitudes, they were involved in the health bureaucracy in accordance with the understanding of health and illness of the time.

Although doctors were brought from Egypt and Babylonia during the reigns of *Mutawalli* and *Ḫattušili* III of the Hittites, the presence of two local doctors, *Ḫutipi* and *Akiya*, is mentioned in a court record[37]. Especially in the case of illnesses of the king and important members of the court, diplomatic means could be used to bring specialized doctors and medicines from Egypt and Mesopotamia (Babylonia)[38]. The peace established with Egypt after the Kadesh Treaty led to the exchange of doctors and medicines in the field of medicine. When *Hattusili* III asked Ramses II to send a physician to help his sister *Matanazi* become pregnant, Ramses sent the following letter to Hattusili:

"(Tell) my brother: (As for) the matter in which (my brother) wrote to me about his sister *Matanazi* as follows: 'Let my brother send me a man who will prepare medicine for her so that she can give birth. This is what my brother wrote to me. (I would like to say) this to my brother: Look, my brother's sister *Matanazi*, your brother the king knows her. She is a woman of fifty or sixty. Look, it is impossible to make medicine to make a woman of fifty or sixty give birth. Indeed, the Sun God and the Storm God (for her sake) can be effective with a magical cure. For my brother's sister (such a cure) was effective in the past. I, your brother the king, will send a skilled magic priest and a skilled [physician] to make a medicine for her to give birth"[39].

Medical topics can be found in Hittite texts. For example, one document mentions *Muršili* II's development of facial paralysis due to the fear he experienced after a thunderstorm and lightning: "The great king *Muršili* says: "I sent *Kunnu* to a ruined city, and there was a storm, and the god of storms struck

[35] Murat, L. (2003). "Amnihatna Ritüelinde Hastalıklar ve Tedavi Yöntemleri". *Archivum Anatolicum,* VI (2), p. 90.
[36] Ünal, *op.cit*., p. 481.
[37] Ünal, *ibid*, p. 481.
[38] Koç, *op.cit*, p. 49.
[39] Koç, *ibid,* p. 49.

me with terrible lightning, and I was (very) frightened, and the words in my mouth became fewer and fewer, and I could utter very few words, and I was constantly swallowing words. As the years passed, this matter began to haunt my dreams, and (one day) the hand of the god touched me in the dream, and my mouth became paralyzed"[40].

In addition to some diagnoses, some treatment methods were also found in Hittite tablets. An example of this is the licking of the sick limb by a dog and the prominence of magical methods. However, it has been determined that they were conscious of protection against infectious diseases, as seen in the example of a prince in the city of *Ašušuḫa* who was taken to another region where the disease was thought to be absent in order to protect him from an infectious disease that caused the death of people[41]. In Hittites, pollution was seen as a cause of disease. They thought that the gods would get angry because of dirt and cause the person to get sick. For this purpose, they tried to be cleansed by performing purification rituals. The *Tunnawi* ritual is an example of this[42]. The attention to cleanliness and hygiene in Hittite medicine, no matter what the reasoning, is in line with current preventive public health principles in a positive way.

Although the Hittites were more similar to Mesopotamian medicine in the field of health and medical organization, it is seen that the Hittites were also in contact with Egypt in the field of medicine.

IV. Medicine and Health Bureaucracy in Egypt

Egypt has developed in the field of medicine within its own geography and belief system. In the Egyptian belief system, efforts were made to protect the body with the idea that the soul would live, and the mummification process was developed with this idea in mind[43].

The sources on Egyptian medicine are papyri with medical themes and prescriptions. Rational medicine and magic are intertwined in the papyri. One of the richest of these papyri is the Ebers Papyrus. It is estimated to date from the 16th century BC and is thought to have been compiled from ancient sources. There are a total of 875 prescriptions for cardiovascular health, gynaecological diseases, surgical procedures, eye diseases, tumours, abscesses, ear problems, stomach diseases and pharmacists. The Smith Papyrus was written at a similar time to the Ebers Papyrus, but is thought to date back to the 3rd millennium BC. This source, probably belonging to an army surgeon, is very valuable from a

[40] Ünal, *op.cit,* p. 491.
[41] Ünal, *ibid,* p. 495.
[42] Arıhan, *op.cit.*, p.40.
[43] Gökhan, F. (2015). *Hititlerde Tıp Üzerine Bir İnceleme*. (Unpublished Master's Thesis). Gazi Üniversitesi Sosyal Bilimler Enstitüsü, Ankara, p. 138.

surgical point of view[44]. The Hearst Papyrus, written in the 16th century BC, is similar to the Smith Papyrus in terms of surgery. This papyrus also describes a mixture of flour, honey and cream, the precursor to plaster, which was prepared to fix bone fractures in the proper position after correcting their curvature. While Hippocrates used a mixture of beeswax for this purpose in the 6th century BC, in the 10th century AD Razi made this mixture with egg white and lime[45]. Today, we know that local people called sınıkçı[46] use a mixture of flour, egg white, honey and cream.

As in Ancient Mesopotamia, the Egyptian belief system deeply influenced the view of illness and health. It is similar to Ancient Mesopotamia in terms of its perspective on the causes of disease. In this context, reasons such as the gods removing the protection of the person from evil, evil spirits and demons can be counted. It is seen that rituals were performed to appease the anger of the gods, and methods such as magic and sorcery were used to get rid of the evil spirits and demon. Among these methods, magic was highly developed in Egypt[47]. In Egypt, magic was called "hike". Magic and magic rituals were practiced according to a certain procedure[48]. According to the Egyptian belief system, the immortality of the soul and the protection of the dead body increased the importance of mummification. There is a relationship between surgeons and doctors and embalmers[49]. Due to the removal of internal organs during the mummification process, an increase in surgical knowledge can be expected, secondary to an increase in knowledge of autopsy and anatomy.

In Egypt, the importance of the local deity is directly related to political power. The power and importance of the gods, which varies according to political and geographical positions in Mesopotamia, is relatively more stable in Egypt. However, the god of the ruler who has a say in the administration will be in a superior position compared to other gods. "Re or Amen" can be shown as the representatives of the local gods in the palace[50]. The gods were generally

[44] Sayılı, *op.cit*., p.115-116.
[45] Sayılı, *ibid*, p. 120.
[46] Baran, B. (2008). "Some Words Reaching from Old Turkish to Anatolian Dialects", *Türk Dünyası İncelemeleri Dergisi / Journal of Turkish World Studies,* VIII/1, p. 44: The verb sı-, which was used in Old Turkic with the meaning of breaking, was collected from more than twenty localities with its variants with the construction suffix: sınık (I): broken, dislocated; sınıkçı, sınıkçı: one who binds broken dislocations .
[47] Mandacı Uncu, *op.cit,* p. 116-117.
[48] Sayılı, *op.cit*., p. 124-125.
[49] Dönmez, O. (2019). *Eski Mısır Uygarlığında Tıp Uygulamaları*. (Unpublished Master Thesis Pamukkale Üniversitesi Sosyal Bilimler Anabilim Dalı Eskiçağ Tarihi Bilim Dalı, Denizli, p. 27.
[50] Sayılı, *op.cit.*, p. 125.

considered positive in the fight against diseases. The most important god of health in Egypt was Imhotep[51].

Medical education in Egypt was in the form of a master-apprentice relationship. Doctors who completed their medical education would take the "physician's oath" and begin their duties. The physical existence of the so-called "House of Life" attached to the temples associated with medical education is disputed. Probably these were places where books were written by scribes according to medical specialties. In this context, there was also a "Teacher of the House of Life". Medical education was also passed down from father to son. In addition, "Sekhment priests worked in the field of medicine under Sekhment, the goddess of health[52]. Sekhment priests were considered to be the best doctors among the people. There were also physicians other than clergymen[53].

Since Egyptian medicine was in a better position than that of other contemporaries, diplomatic relations existed. It was common for doctors to be sent to other countries for their royal patients or for the patient to be brought to Egypt.

For example:

1. During the reign of Amenophis II, a Syrian prince came to be examined by the court physician Nabamon,

2. Cyrus II (559-530 BC) asked Amasis II (570-526 BC) to send an ophthalmologist[54].

There was specialization among Egyptian medical doctors. In addition to branches such as surgery, internal medicine and dentistry, there was also a very important civil service position such as "chief palace doctor". It is understood that there was a health bureaucracy outside the palace doctorate and that the health service had an organizational structure in accordance with the hierarchy. At the head of this health bureaucracy was the "palace chief physician", the equivalent of today's minister of health[55]. In addition to the presence of doctors in the palace, temples and high-ranking institutions in the Egyptian health structure; the health services of places with large business capacities were also met.

Due to the partial socialization of health care and the fact that it was in the form of civil service, it is interpreted that patients did not pay fees[56]. Physicians working in the temples were paid a salary from the temple budget,

[51] Gökhan, *op.cit.*, p. 136.
[52] Sayılı, *op.cit.*, p. 123-124.
[53] Dönmez, *op.cit.*, p. 26-27.
[54] Sayılı, *op.cit.*, p. 122.
[55] Dönmez, *op.cit.*, p. 26-27.
[56] Sayılı, *op.cit.*, p. 123-124.

while physicians working in the nobility and the palace earned their living from there. Common physicians, on the other hand, earned income by selling medicines and cosmetic products. While physician payments could be in the form of gifts, the health services of Lower and Upper Egypt were managed by the health bureaucracy under the direction of the Chief Physician of the Palace[57].

V. Conclusion

In ancient times, people have always had health problems and solutions have always been sought. Since the interpretations of the causes of disease were related to faith, diseases and health structuring were directly related to the religious structure and thus to the administrative power. In ancient Mesopotamia and Egypt, the religious bureaucracy was formed to include the health bureaucracy. The temples largely undertook the task of training physicians in the field of health. In the hierarchical structure, there were priests with different status such as doctors, pharmacists, divination readers, spell and magic practitioners. These groups of healers, who were trained in a master-apprentice relationship, occasionally entered each other's fields and also carried out joint studies. In the Hittites, unlike in Mesopotamia, the training of physicians was under the control of the palace.

Physicians examined people of different statuses, from those living in the palace to soldiers and civilians. Physicians were also sent to other countries through diplomatic relations. Especially from countries like Egypt and Mesopotamia, where medicine was more advanced, to countries like the Hittites, which had less medical knowledge, physicians and medicines were sent as a sign of friendship. Apart from these, it is seen that physicians were tried to be kept in their countries by granting them certain rights. In addition to the tax exemptions provided in Egypt and the Hittites, special statuses were granted.

In ancient Mesopotamia, a hierarchical structure was observed in the temple due to the difference in status among the healers; similar to this structure, in Egypt and the Hittites, it is seen that doctors with status differences worked in a hierarchical order.

This subject is open to further research and it is expected that new studies to be conducted as the sources are unearthed will provide a better understanding of medicine and health bureaucracy in the Ancient Age.

[57] Dönmez, *op.cit*., p. 27-28.

Appendix: Tables

Table 1: Healers in Ancient Mesopotamia

Āšipu	Diviner doctor
Asû	Pharmacist, specialist in surgical intervention
Mašmaššu	*Āšipu's similar mission*
Bārû	Diviner

Table 2: Assyrian Physician Status

GAL. $^{LÚ.MES}$A.ZU	General physician Chief
^{LÚ}A.ZU.SAG	Chief physician
UGALU^{LÚ}A.ZU	Physician inspector
^{LÚ}A.ZU.TUR/ KAB.ZU.ZU	General practitioner
^{SAL}A.ZU	Female physician

Table 3: Doctors and Healers in the Hittites

GAL $^{LÚ.MES}$ A.ZU	Head of physicians
^{LÚ} A.ZU SAG	Chief physician
^{LÚ} A.ZU TUR	Assistant/minor physician
^{MUNUS}A.ZU	Female physician
^{LÚ}SANGA	Priest
^{LÚ} AZU	Magician, diviner, fortune teller
^{MUNUS}ŠU.GI	Old woman, magician
^{LÚ}MUŠEN.DU	Bird catcher, diviner
^{LÚ}IGI.MUŠEN	Diviner, bird keeper
^{LÚ}HAL	Diviner

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Islamic Medicine in al-Andalus and Its Influence on the Medieval Europe (10th-13th Centuries)

Enes ŞANAL[*]

Abstract

Since ancient times, the science of medicine, which has developed through human knowledge and experience, has held an important place in different societies throughout history. Starting in the early Middle Ages, physicians living in Islamic lands made a significant contribution to the development of Islamic medicine by benefiting from different medical traditions, such as those of Greece and Egypt, through their original works and translations in the field of medicine. One of the regions where developments in medicine were most concentrated during the Middle Ages was the geography of Al-Andalus, where Muslim, Christian, and Jewish cultures interacted closely. Muslim physicians such as Ibn Juljul and Zahrawi, who were raised in Al-Andalus, wrote important works in the field of medicine, while non-Muslim physicians also contributed to the development of medical science in Al-Andalus through their activities in scientific life. This study aims to examine the development process of medical science in Al-Andalus, the prominent scholars of this period, and the process of assimilation and integration of Andalusian medicine in Europe, based on Islamic and Christian sources of the time. In this context, it will highlight the contributions made by Christians and Jews living in Al-Andalus to the enrichment of Islamic medical literature through their authorship and translation activities. Similarly, the effects created by the dissemination of Islamic medical knowledge in Andalusia during the 12th and 13th centuries, through translations from Arabic into Latin, Hebrew, and Castilian, and its subsequent recognition in Europe's leading medical centres, will be identified based on medieval sources.

Keywords: Islamic Medicine, al-Andalus, Andalusian Physcians, Avicenna, Western Medicine

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I. Introduction

The science of medicine, which is almost as old as the history of mankind, has been learned among various nations living in different parts of the world throughout history and has continued to be one of the most important branches of science until today. Since ancient times, Egyptian, Greek and Syriac medical traditions emerged and the foundation of modern medical science was laid with the scientific works produced. When it came to the Middle Ages, with the emergence of the Islamic State in the 7th century and the Islamic domination of geographies such as the Arabian Peninsula, Iraq, Syria, Iran, Egypt, Maghreb and al-Andalus in the following century, Muslim physicians trained in these lands prepared the ground for the beginning of studies in the field of medicine. From the 7th century onwards, not only did an interest in medicine emerged among Muslims, but also different medical traditions began to be recognized by scholars in the Islamic world. In the first half of the 9th century, a significant portion of the scientific works translated into Arabic from languages such as Greek, Syriac and Sanskrit at the Bayt al-Hikma, which was established in Baghdad under the patronage of the Abbasid Caliphs, were medical texts. The first works produced in the field of medicine in the Islamic world were largely based on medical texts translated into Arabic from languages such as Greek, Syriac and Sanskrit, and the knowledge accumulated from different scientific traditions.

In the century following the birth of Islam in the Arabian Peninsula at the beginning of the 7th century, Muslims expanded their territories and bordered Spain in the west and China in the east. Muslims, who established permanent sovereignty in these geographies, thus became acquainted with different languages, religions and cultures. As Muslims began to pursue their scientific activities in their newly conquered lands, they encountered scientific traditions they had not known before. In this way, they had the opportunity to learn new scientific works and medical traditions in the field of medicine as in other disciplines. In the period following the emergence of Islam, regions such as Iraq and Syria came to the fore with medical studies in the Islamic world, while important developments took place in al-Andalus in the west.

II. Medical Science in al-Andalus

In the years following the conquest of al-Andalus by the Muslims, significant progress was made in the field of medicine, as in other branches of science. In al-Andalus, it is seen that both the people and the rulers attached great importance to medical science. The following words of the Andalusian scholar Ibn Abdūn about the necessity of medical science show the importance given to medicine in the region:

> "Nothing is more necessary in the world than a righteous cadi, a trustworthy notary, a good calafate and an expert and conscientious doctor, for on these four offices depends the life of the world."[1]

Abu Bakr Abd al Aziz al-Arbuli, another Andalusian scholar who lived during the Bani al-Ahmar State (1238-1492), makes the following statements about medical science and medicine:

> "There are two kinds of science: the science of beliefs and the science of bodies, both of which are characterized by their great nobility and excellence. The science of medicine is one of these two sciences distinguished by its nobility and importance, and he who possesses and masters it has been favoured by fate with intelligence and high rank."[2]

Throughout the history of al-Andalus, there is not enough information in historical sources about the existence of hospitals in the region where medical studies were carried out and patients were treated. It is estimated that in the first centuries of Andalusia, medical education was given in madrasas or mosques. It is thought that the first hospitals with the characteristics of the Eastern Islamic world emerged in Andalusia in the 14th century. Allegedly, the Nasrid ruler Muhammad V saw a hospital in the city of Fez during his journey to North Africa and decided to open a similar hospital in al-Andalus.[3]

As in other scientific basins of the Islamic world, important studies in the field of medicine were carried out in al-Andalus throughout medieval history. From 711 to 1492, the region was under Islamic rule, and while the studies in the field of medicine were limited in the first centuries, especially from the 10th century onwards, Andalusian medicine showed a great development with the encouragement of Muslim rulers. In the early periods of the Andalusian Umayyad State, which ruled between 756 and 1031, there were few scholars in the field of medicine, but by the 10th century, skilled physicians in medical science were trained among Muslims, Christians and Jews.

II.1. Activities of Muslim physicians in the field of medicine in al-Andalus

The records in Said al-Andalusi's (d. 1070) *Tabakat al-Umam*, in which he provides valuable information about the scientific life in the region, show that medical studies in al-Andalus began as early as the 9th century. He states that

[1] Silvia Nora Arrañada, "Algunas reflexiones sobre la medicina andalusi", *IACOBUS*, no 23-24, 2008, pp. 121-122.
[2] Al-Arbuli, *al-Kalam alal Agdiya*, trans. Amador Diaz Garcia, in *Cuadernos de estudios Medievales*, v. 6-7, 1981, pp. 8-9.
[3] Arrañada, *ibid.*, p. 134.

Hamd Ibn Abba and Harrani, who came to the region from Anatolia, were the first physicians to practice medicine in al-Andalus.[4] Scholars such as Hamdeyn b. Eban, Ahmad b. Iyas and Abdulmalik b. Habib, who lived in the 9th century, were prominent among the first physicians trained in al-Andalus. During the reign of Hakam II, between 961-976, the physicians Ahmad Ibn Hakam Ibn Hafsun, al-Kinani and al-Saqafi contributed to the development of Andalusian medicine.[5]

The name of Ibn Juljul (d. 994) stands out as one of the early scholars of medicine in al-Andalus. Born in 944 in the city of Cordoba, Ibn Juljul started to research in the field of medicine at the age of fourteen and gained fame throughout al-Andalus as a physician.[6] This scholar, who was the personal physician of the Andalusian Umayyad Caliph Hisham II (976-1009), also wrote the work *Tabakât al-Atibbâ wa'l-Hukamâ*, which contains valuable information about Islamic medicine as a medical historian. Ibn Juljul mentioned the pioneers of ancient Greek and Roman medicine in his work, in which he touched upon the lives and scientific activities of prominent physicians from different nations who lived from ancient times to his own era. The author also provides detailed information about the lives of the physicians trained in al-Andalus and the medical studies in the region. While preparing his work, Ibn Juljul benefited from the early Islamic medical literature as well as the works of scholars such as Orosius, Heron, Dioscorides and Isidore of Seville, who are considered authorities in the Western world.[7] The author, who is considered by some scholars to be the first Muslim scholar to use Western sources, differs greatly from other physicians of his religion living in the Middle Ages in this respect.[8] The author has two other works, *Tafsir al-Asma al-adwiyat al-mufrada min Kitabi Dioskuridus* and *Maqala fi zikr al-adwiyattillati lam-yezkurha Dioskuridis fi Kitabih*, in which he includes his views on the work *De Materia Medica* by Dioscorides, who is considered an important authority in the field of medicine. *Maqala fi adwiyat at-tiryak* is another work in which he describes antidotes and painkillers.

Among the Muslim physicians trained in al-Andalus, the name of al-Zahrawī (d. 1013) deserves to be emphasized for his contributions to the field of medicine. Zahrawī, who developed himself as a versatile intellectual in different branches of science from an early age, had a deep knowledge in the field of

[4] Said al-Andalusi, *Tabaqat al-Umam*, trans. Ramazan Şeşen, Türkiye Yazma Eserler Kurumu Başkanlığı Yayınları, İstanbul, 2014, p. 196.
[5] Said al-Andalusi, *ibid.*, p. 200.
[6] Said al-Andalusi, *ibid*., p. 204.
[7] Russell Hopley, "The Translation of Nature: Al-Sharif al-Idrisi on the Plant Life of the Western Mediterranean", *Translating the Middle Ages*, (ed. Karen L. Fresco, Charles D. Wright), Routledge, New York, p. 26.
[8] Emilia Calvo, "Ibn Juljul", *Encyclopedia of the History of Science, Technology, and Medicine in non-Western Cultures*, ed. Helaine Seline, v. 1, Springer, 1997, p. 1105.

medicine. Al-Zahrawī, who thoroughly analyzed the medical literature until his time, wrote *Kitab al Tasrif* with the intention of eliminating the mistakes in this field and presenting the correct information, and his work Kitab al Tasrif gained fame as a unique work in the Islamic world and Europe, especially in the field of surgery. His contemporary, the Andalusian scholar Ibn Hazm (d. 1064), commented on his work: *"We would be correct if we said that no more comprehensive work has been written in the field of medicine, more beautiful in terms of expression and application."*[9] The work is a comprehensive encyclopedia of basic information on medical science, diseases and treatment methods, types of medicines, foods suitable for diseases, drug names and surgery. It is one of the most comprehensive and important scientific texts written in the field of medicine not only in al-Andalus but also in the medieval Islamic world.

The period of Muluk al-Tawaif (1031-1090) is noteworthy as a period in which medical studies continued uninterruptedly despite the political instability in al-Andalus. During these years, Muslim emirs ruling independently from each other in different cities of al-Andalus employed important physicians in their palaces. One of these physicians, Ibn Wafid (b. 1075), was patronized by Amir Ma'mun for his talents in medicine and botany while continuing his scientific activities in Toledo, a city ruled by the Zunnunids.[10] His work *Kitab al-Adwiyat al-Mufrada*, in which he revealed his knowledge in the field of medicine, examines topics such as medicines and treatment methods.[11]

Among those who made the greatest contribution to the development of Andalusian medicine are the members of the Bani Zuhr family, who trained important physicians for several generations. In the 11th and 12th centuries, Abu Marwan Abd al-Malik b. Muhammad (d. 1078), the first known physician member of this family who lived in Seville, returned to Al-Andalus after studying medicine in important scientific centers of the Islamic world such as Tunisia and Egypt.[12] It is estimated that he was the person who brought Ibn Sina, the greatest physician of the Islamic world, Ibn Sina's *al-Qanun fit Tıbb*, the masterpiece in the field of medicine both in the Islamic world and in Europe, to al-Andalus.[13] Abu'l Ala Zuhr b. Abd al-Malik (d. 1131), another important physician of this family, enriched the Andalusian medical literature by writing *at-Tazkira* and *Kitab al-Nukati al-tıbbiya*. Abu Marwan Abd al-Malik b. Zuhr (d. 1162), the most prolific physician of this family, gained fame in the Islamic world and in

[9] Esin Kahya, "Zehravi", *TDVİA*, v. 44, İstanbul, 2013, p. 190.
[10] Ibn Abi Usaybiah, *Uyun al-Anba fi Tabaqat al-Atibba*, trans. Emilie Savage-Smith, Simon Swain, Geert Jan van Gelder, Brill, Leiden, 2020, p. 1044.
[11] Said el-Andalusi, *ibid.*, p. 206.
[12] Said el-Andalusi, *ibid.*, p. 208.
[13] Henry A. Azar, *The Sage of Seville: Ibn Zuhr His Time, and His Medical Legacy*, The American University in Cairo Press, Cairo, 2008, p. 18.

European intellectual circles where he was known as Avenzoar. The physician's Kitab al-Taysir, in which he gives important information about various diseases and their treatments as well as drug making, is one of the most important texts of Andalusian medicine. The work, which attracted the attention of non-Muslim physicians as well as Muslim physicians over time, was first translated into Latin and then into Hebrew by Joseph ben Machir Ibn Tibbon and became a work of reference, especially for Christian and Jewish physicians in Europe.[14]

In the 12th century, one of the most prominent Muslim physicians in al-Andalus was Abu al-Salt (d. 1134). In his work *Adwiyat al-Mufrada*, he described simple medicines, which were later used by important Andalusian scholars such as Ibn al-Baytar (d. 1248).[15] Another important Muslim physician who grew up in al-Andalus and worked in the field of medicine was Ahmed b. Muhammad al-Gafiqi (d. 1165). In his work *al-Adwiyat al-Mufrada*, which he wrote as a result of his long research, he summarized the opinions of physicians who lived from ancient times to his own time and introduced some drugs that were not known enough.

Ibn Rushd (d. 1195), the greatest Muslim philosopher of the Middle Ages according to most researchers, who lived in various cities of al-Andalus, especially in Cordoba, wrote important works on medicine, although he owed his fame mostly to his works in the field of philosophy. Ibn Rushd was mostly known in the Islamic world and Europe in the field of medicine with his work *al-Kulliyat fi al-Tib*. The work, which describes many subjects such as diseases, medicines, treatment methods and nutrition, was translated into Latin by Bonacusa and into Hebrew by Moses b. Tibbon in the 13th century.[16]

Another important scholar in al-Andalus who deserves to be remembered for his activities in the field of medicine was Ibn al-Baytar. Born in the city of Malaga, this scholar increased his competence in the field of medicine by working with renowned physicians of his time, such as Ibn al-Rumiyya and Ibn Hajjaj. In addition to learning the types and properties of medicinal plants, he specialized in this field by studying the medical texts of the most important physicians of antiquity, such as Dioscorides and Galen. Starting from al-Andalus, Ibn al-Baytar travelled to the eastern Islamic lands to develop his knowledge in the field of medicine and botany and reached Greece and Anatolia via North Africa.[17] He met with the important physicians of this geography, where the Byzantine Empire and

[14] Michael McVaugh vd., *The Regimen Sanitatis of "Avenzoar": Stages in the Production of a Medieval Translation*, Brill, Leiden, 2019, p. 16.
[15] Cemil Akpınar, "Ebü's-salt ed-Dânî", *TDVİA*, v. 10, İstanbul, 1994, p. 341.
[16] Bekir Karlığa, "el-Külliyat fit Tıb", *TDVİA*, v. 26, Ankara, 2002, p. 546.
[17] Muhammad b. Shakir al-Kutubī, *Fawāt al-Wafayāt wa'z-zayl al-'aqsa*, vol. 2, ed. Ihsan Abbas, Dar al-Sadr, Beirut, 1973, p. 160.

the Anatolian Seljuk State ruled, and exchanged ideas with them.[18] This scholar, who continued his studies by examining the plant species he collected during his scientific travels, resided in Egypt for a while. The Egyptian historian al-Nuwayri (d. 1333) mentions that when he lived in Egypt, he was patronized at the palace of al-Malik al-Kamil Muhammad, the ruler of the Ayyubid State.[19] Ibn al-Baytar gained great fame in al-Andalus and the Islamic world with his works on medicine and botany. There is a Turkish translation of the author's work on simple medicines, *al-Mufradat*, which was presented to Aydınoğlu Umur Beg in the 14th century.[20] *Al-Mugni*, which is a catalogue of simple medicines to be used in various diseases, and *Tafsir al-Kitab al-Diyaskuridis*, which contains explanations of Dioscorides' *De Materia Medica*, also increased Ibn al-Baytar's recognition in the field of medicine.

In the period of the the Nasrid kingdom (1238-1492), there were some prominent writers in the field of medicine. Lisan al-Din Ibn al-Khatib (d. 1375), known as the vizier and historian of the Nasrid state, provides information about the plague epidemic in 1349 in his work *al-Kitab al-Muqni'at alsa'il an al-Marad al-ha'il*.[21] As-Safra (d. 1360), another important physician living in this period, examines inflammations, tumors, wounds, simple and compound medicines in his three-part work *Kitab al-Istiqsa wa'l-ibram fi'ilay al-yirahat wa'l-awram*. In the Nasrid period, the names of al-Saquri, Ibn Sarray and Muhammad al-Raquti stand out in the field of medicine. Islamic sources report that one of these scholars, Muhammad al-Raquti, was skilled in the field of medicine and that he met King Alfonso X of Castile-León (d. 1284) and taught at the madrasah established in Murcia by his order.[22]

Although he did not live in al-Andalus, Ibn al-Jazzar (d. 979) was another Muslim physician whose works, like Ibn Sina's, reached al-Andalus and were translated into Western languages in the 12th-13th centuries and became known in European medical circles. Ibn al-Jazzar, who was born in the city of Kayrevan in Tunisia and spent his entire life in North Africa, wrote twenty-seven works, according to the information in Islamic sources. Said al-Andalusi states that this

[18] Ibn Abi Usaybiah, *ibid.*, p. 601.

[19] Shihab al-Din al-Nuwayri, *Nihayat al-Arab fi funun al-adab*, trans. Elias Muhanna, Penguin Books, New York, 2016, p. 299.

[20] Andrew Charles Spencer Peacock, *Islam, Literature and Society in Mongol Anatolia*, Cambridge University Press, Cambridge, 2019, p. 166.

[21] Jose Gonzalez Dominguez, *Medicina y Sociedad en el Reino de Granada durante el siglo XVI: Los Moriscos: Antecedentes y Consecuentes*, Universidad de Granada, Thesis Doctoral, Granada, 2022, p. 173.

[22] Lisan al-Din Ibn al-Khatib, *Al-Ihata fi Akhbar Gharnata*, v. 3, ed. Yusuf Ali Tawil, Darl al-Kotob al-İlmiyyah, Beirut, 2003, p. 48. Ahmad Ibn Muhammad al-Maqqari, *Nafhu't-tib min ghosni'l-Andalusi'r-rattîb ve zikru wa tarikh Lisan al-Din Ibn al-Hatîb*, ed. Reinhart Dozy, William Wright, I Krehl, Gustave Dugat, v. 2-2, Leiden, 1855-1861, p. 510.

Muslim physician collected and studied ancient medical texts.[23] His works on simple medicines, *Kitab al-Itimad fi al-Adwiyat al-Mufrada* and *Zad al-Musafir* were translated into Latin. In this period, the works of Islamic scholars were mostly translated into languages such as Latin, Castilian and Hebrew, while Ibn al-Jazzar's *Zad al-Musafir* was also translated into Greek.[24]

II.2. Activities of Andalusian Christian and Jewish Physicians in the Field of Medicine

Andalusian medicine showed a significant development with the combination of different medical traditions. While a limited number of works were written by Muslim physicians in the first centuries, the beginning of the transfer of the medical knowledge of the ancient period into Arabic inspired Andalusian scholars in their work. For example, Dioscorides Pedianus' *De Materia Medica*, considered one of the most important physicians of the ancient period, reached al-Andalus in the 10th century, where there was a limited scientific literature in the field of medicine, and its translation into Arabic made a significant contribution to the development of the field of medicine in the region.[25] Ibn Juljul, an Andalusian physician and biographer, writes about the impact of Dioscorides' work following its translation into Arabic in Cordoba:

> "Thanks to the work of these doctors, the names of the medicines in Dioscorides' books became known in Cordoba and throughout al-Andalus, and the doubts that existed were dispelled."[26]

In al-Andalus, physicians from the three Abrahamic religions continued their activities in the field of medicine. It is understood that some of these physicians, who grew up in different medical traditions, were aware of the medical knowledge of physicians of other religions. For example, in his biographical work *Tabakāt al-Atibba wa'l-Hūkemā*, Ibn Juljul mentions that most of the non-Muslim physicians working under the patronage of the Umayyad Caliph of al-Andalus, Abd al-Rahman III, knew Arabic.[27]

It is seen that very talented physicians were trained among the Jews living in al-Andalus from early times. In the 10th century, Hasdai ibn Shaprut, who gained the respect of Abd al-Rahman III with his competence in the field of medicine, was taken into service in the palace as the caliph's private physician.[28]

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[23] Said al-Andalusi, *ibid.*, p. 164.
[24] Hasan Doğruyol, "İbnü'l-Cezzâr", *TDVİA*, v. 21, İstanbul, 2000, p. 2.
[25] Enes Şanal, "Arapça Konuşan Hıristiyanlar: Mozaraplar'ın Endülüs Bilim Hayatına Katkıları (X. Asır)", *Tarih İncelemeleri Dergisi*, v. 38-2, 2023, pp. 731-735.
[26] Ibn Juljul, *Tabakât al-Atibbâ wal-Hukemâ*, v. 10, (Ed: Fuat Sayyid), Matbau'l-Mahat el-İlmî el Fransi, Cairo, 1955, p. 22.
[27] Ibn Juljul, *ibid.*, p. 92-97.
[28] Said al-Andalusi, *ibid*., p. 216.

Islamic sources state that the Jewish physician made great efforts to help his co-religionists in al-Andalus and elsewhere develop in the scientific field.[29] Rodrigo Jimenez de Rada (d. 1247), an important representative of medieval Spanish historiography, mentions that Prince Sancho, nicknamed Fat, who lived in the territory of the Kingdom of Castile in the north of the Iberian Peninsula in these years, came to Cordoba due to obesity and was treated here and regained his health.[30] Allegedly, the prince's grandmother sought help from Hasdai ibn Shaprut for the treatment of her grandson.[31] This example confirms that al-Andalus was more advanced in the field of medicine than Christian Spain in the 10th century.

In the following period, important Jewish physicians were trained in different cities of al-Andalus. In the 11th century, Ishaq Ibn Kasdar worked in the service of the Amirs and continued his activities in the field of medicine.[32] Another Jewish physician who practiced medicine in Zaragoza in the same period was Marwan Ibn Janah, who worked on medicines.[33] The most famous among the Jews living in the region was undoubtedly Maimonides (d. 1204), who is considered the greatest Jewish scholar of the Middle Ages. After living in al-Andalus for a while, the Jewish scholar migrated to Egypt and was patronized by the Ayyubid ruler Saladin Ayyubid's vizier Qadi al-Fazil and was allocated a large salary.[34]

Historical sources contain some records referring to contacts between Muslim and non-Muslim physicians in al-Andalus in the Middle Ages. In the 12th century, Ibn Abdūn, a Muslim scholar living in Seville, states in his work that it is objectionable for Muslims to be treated by non-Muslim physicians.[35]

III. The Transfer of Islamic Medical Knowledge to Europe via al-Andalus

Al-Andalus has been home to Muslim, Christian and Jewish scholars since the 8th century, when it joined the Islamic lands, and the scientific contacts between these scholars of different religions led to the emergence of a rich scientific literature with the combination of different scientific traditions. In al-Andalus, Islamic medicine developed greatly as Islamic medicine came together with Christian and Jewish medical traditions. The fact that the medical texts of

[29] Ibn Abi Usaybiah, *ibid*., p. 494. Said al-Andalusi, *ibid*., p. 217.
[30] Rodrigo Jiménez de Rada, *Historia de Rebus Hispanie*, Alianza Editorial, Madrid, 1989, p. 200.
[31] Michael B. Barry, *Homage to al-Andalus: The Rise and Fall of Islamic Spain*, Dublin: Andalus Press, 2016, s. 83.
[32] Said al-Andalusi, *ibid*., p. 218.
[33] Said al-Andalusi, *ibid*., p. 218.
[34] Mustafa Çağrıcı, "İbn Meymun", *TDVİA*, c. XX, İstanbul, 1999, p. 195.
[35] Ibn Abdūn, *Risala fi'l Kadâ wa'l-Hisba*, Trans. Emilio Garcia Gomez, E. Levi Provencal, Biblioteca de Temas Sevillanos, Sevilla, 1981, p. 173.

Muslim physicians living in different parts of the Islamic world, especially Ibn Sina, reached al-Andalus in time encouraged the production of new works while providing a source for Muslim physicians in the region. While Arabic medical texts produced in al-Andalus or transported to the region from the Islamic world were used by physicians in the region, especially from the 12th century onwards, they began to attract the attention of the scientific circles in Christian Spain in particular and in Europe in general. The fall of the Islamic city of Toledo, which hosted rich libraries containing important scientific works in the field of medicine, to the Christians in 1085 draws attention as one of the most important events in the transfer of Islamic medical knowledge to the West. As a matter of fact, following the annexation of the city to Castile, the Archbishop of Toledo, Raymond de Sauvetat (d. 1152), recognizing the scientific value of the Arabic texts in the aforementioned libraries, invited intellectuals from different parts of Europe to the city to translate these works into Latin and other Western languages, an important milestone in the history of Islamic-Western intellectual relations.[36] At the same time, this historical event marks the beginning of the first important stage in the recognition of Islamic medicine in the West.

Upon the invitation of Archbishop Raymond of Toledo, Western intellectuals from England, France, Italy and other cities of Europe flocked to Toledo, where they translated the works of Muslim physicians, especially Ibn Sina, who were not previously known in the Christian world, from Arabic into Western languages. In this way, especially in the 12th-13th centuries, the works of scholars such as Zahrawi, Ibn Sina and Ibn Jazzar in the field of medicine became among the sources directly accessible to Western physicians and aroused great interest in medical centres in Europe.

While Islamic medical knowledge was brought to Europe through translations in Toledo and various cities of the Iberian Peninsula, it was the Muslim physician Ibn Sina who had the greatest impact on the Western world. Although the Muslim physician lived in the Eastern Islamic lands, his works reached al-Andalus in time and were closely studied by the physicians in the region. The translation of his works in the field of medicine into languages such as Latin and Hebrew enabled him to be recognized as an important medical authority in Europe. The Italian translator Gerard of Cremona translated into Latin the masterpiece of the author known as Avicenna in Europe, al-Canon, and this translation attracted considerable attention in Western medical circles. From the 12th and 13th centuries, when important universities were established in Europe, al-Canon became a reference book in the field of medicine in the Christian West. From this period onwards, the work was included in the medical

[36] Americo Castro, Spaniards*: An Introduction to Their History*, University of California Press, London, 1971, p. 520.

curricula of some European universities, and its competence in the field was widely recognized. In his *Nuremberg Chronicle*, the German historian Hartmann Schedel (d. 1514) presents Ibn Sina as the greatest physician not only in the Islamic world but also in the Christian West.[37]

Another work of Ibn Sina in the field of medicine, *Urjûza fi't-Tıbb*, attracted the attention of European intellectuals and was translated into Latin by Armenaud de Blase and into Hebrew by Moses b. Tibbon.[38] Ibn Sina's *Ahkām al-Adwayat al-kalbiyya* is one of the medical works that attracted attention in the Western world. At the beginning of the 14th century, Arnau de Vilanova, a famous physician from Catalonia, translated this work of the Muslim physician into Latin under the title *De Viribus Cordis* and made it accessible to European physicians.[39]

After Ibn Sina's works on medicine were translated into languages such as Latin and Hebrew, they attracted great interest in important medical centers in Europe. As a reflection of this interest, Pope Clement V, after consultations with prominent Christian physicians such as Arnau de Vilanova, decided that al-Canon should be taught as a textbook in the medical faculties of European universities.[40] After being translated into Western languages, al-Canon was included in the curriculum of the Faculty of Medicine at the University of Montpellier in France, one of the leading medical centers in Europe, and was taught to medical students for centuries.[41] Al-Canon was taught as a compulsory textbook in institutions such as the University of Vienna in Austria, the University of Ingolstadt in Germany and the University of Louvain in Belgium, which came to the fore with their scientific activities in the 15th and 16th centuries.[42]

Ibn Sina's fame as a Muslim physician attracted the attention of Christians as well as Jewish physicians living in Europe, especially after the translation of his work al-Canon into Hebrew. After the work was translated into Hebrew by Nathan b. Eliezer ha-Meati in Rome in 1279, Jewish physicians'

[37]Hartmann Schedel, *Liber Chronicarum*, p. 557. https://ia800900.us.archive.org/16/items/NurembergChronicleTranslated InEnglish/Nuremberg%20Chronicle%20translated%20in%20English.pdf (15.02.2025)

[38] Michael R. McVaugh, "Armengaud Blaise as a Translator of Galen", *Texts and Contexts in Ancient and Medieval Science*, (ed. Edith Sylla, Michael R. McVaugh), Brill, Leiden, 1997, p. 115.

[39] Luis F. Lopez Gonzalez, *The Aesthetics of of Melancholia: Medical and Spritual Diseases in Medieval Iberia*, Oxford University Press, New York, 2022, p. 61. Daniel Jacquart, "The Survival of the Medieval Translations", *The Diffusion of the Islamic Sciences in the Western World*, Micrologus, Edizioni del Galluzzo, Floransa, 2020, p. 301.

[40] Arslan Terzioğlu, "İbn Sina'nın Tababeti ve Avrupa'ya Tesirleri", *İbn Sina: Doğumunun Bininci Yılı Armağanı*, ed. Aydın Sayılı, Türk Tarih Kurumu Yayınları, Ankara, 2014, p. 76.

[41] Nancy G. Siraisi, *Avicenna in Renaissance Italy: The Canon and Medical Teaching in Italian University after 1500*, Princeton University Press, New Jersey, 1987, p. 51.

[42] Hartmann Schedel, *ibid.*, p. 558. Terzioğlu, *ibid.*, p. 76.

interest in Ibn Sina increased.[43] In fact, Maimonides, in his letter to Samuel Ibn Tibbon, who was known for his translations from Arabic in France in the 12th and 13th centuries, emphasizes that Ibn Sina's works are useful and that Jews should study them.[44]

Another physician whose works were carried to Europe through al-Andalus and became known in the Western medical world was Zahrawi (d. 1013). The translation of the thirteenth chapter of Zahrawi's *Kitab al-Tasrif* on surgery into Latin by the Italian translator Gerard of Cremona in the 12th century contributed to his follow-up by Western physicians. By the 13th century, the translation of the first two chapters into Hebrew and Latin increased Zahrawi's popularity among Jews and Christian physicians. The dietary part of Zahrawi's work was translated into Catalan by Berenguer Eimerich (d. 1332) in the same period. Shem Tov Ibn Ishaq, a Jewish scholar from Tortosa in Spain, translated his work into Hebrew, while his son Abraham ben Shem Tov, in collaboration with Simon Carlo, translated it into Latin.[45] Guy de Chulliac (d. 1368) was among the Christian physicians who made the most intensive use of the medical texts of Muslim physicians in late medieval Europe. The fact that he refers to Zahrawi in 200 different places in his work *Chiurgia Magna*, which he prepared as a result of a long effort, shows that the Muslim physician was considered an authority in Western medical circles, especially in surgery.[46] Zahrawi's influence was not limited to the physicians of medieval Europe. In the 17th century, scholars such as William Harvey (d. 1657), who explained the great circulation in his *De Motu Cordis et Sanguinis* and was respected throughout the Western world, benefited from his work, proving how long the influence of the Muslim physician lasted.[47]

In the 13th century, King Alfonso X of Castile-León (d. 1284), nicknamed 'The Wise', who drew attention with his interest in Islamic sciences in Europe, had many Arabic scientific works written in the Islamic world, especially in al-Andalus, translated into Castilian under his patronage. Among the aforementioned works were the works of scholars who had studied medicine in al-Andalus. The king had the scholars working under his patronage translate Ibn Wafid's *Kitab al-Adwiyat al-Mufrada*, which he prepared by making use of

[43] Gad Freudenthal, "Why Translate? Views from Within Judaism: Egodocuments by Translator from Arabic and Latin into Hebrew (Twelfth-Fourteenth Centuries)", *Why Translate Science? Documents from Antiquity to the 16th Century in the Historical West (Bactria to the Atlantic)*, ed. Dimitri Gutas, Brill, Leiden, 2022, p. 621.

[44] Gad Freudenthal, Mauro Zonta, "Avicenna Among Medieval Jews: The Reception of Avicennas Philosophical, Scientific and Medical Writings in Jewish Culture, East and West", *Arabic Science and Philosophy*, v. 22-2, 2012, p. 216.

[45] Yom Tov Assis, "The Jewish Physician in Medieval Spain", *Medicine and Medical Ethics in Medieval and Early Modern Spain*, ed. Magnes Press, Jerusalem, 1996, p. 37.

[46] Kahya, *ibid*., p. 190.

[47] Kahya, *ibid*., p. 190.

Dioscorides and Galen, into Castilian.[48] In the following years, the work was translated into Catalan and thus addressed to physicians in the Catalonia region. In the years following the production of the Castilian version of the work, it is known that some Spanish agronomists showed interest in the work. The Spanish agronomist Gabriel Alonso de Herrera (d. 1539) refers to Ibn Wafid's work in different parts of his *Agricultura General*.[49] Another Andalusian scholar who attracted Alfonso X's attention was Ibn Bassal, who was active in Toledo in the 11th century. This work of the author, who explained the plant species and their medicinal properties in his work *Kitab al Filâha*, was translated into Castilian by the king.[50] Interest in Islamic medicine in the Kingdom of Castile-León continued in the period after Alfonso X. In the 14th century, an anonymous Arabic work titled *al-Tibb al-Gastalli* was written, and in the same period, a Jewish physician named Shemuel Ibn Wakar prepared a medical treatise in Arabic.[51]

While important non-Muslim physicians were trained in al-Andalus during the Islamic period, some of these physicians migrated to the kingdoms of Christian Spain and other parts of Europe from the 12th century onwards. These physicians took part in the translation of Arabic medical texts into Latin, Hebrew and Romance languages.[52] The main European cities where Jewish physicians interested in Islamic medicine carried out their medical activities were cultural centres such as Toledo, Barcelona and Montpellier.

Some of the Jewish physicians who developed themselves with the Islamic medical knowledge in Andalus were patronized by the kings at the courts of the Kingdom of Aragon and the Kingdom of Castile, especially between the 12th and 14th centuries. Abraham bar Hiyya (d. 1136), who continued his activities in Catalonia, translated Hunayn Ibn Ishhaq's work into the Romance language, while Samuel Ibn Tibbon translated Ali Ibn Ridwan's commentary on Galen.[53] King Jaime II of Aragon (d. 1327) patronized many Jewish scholars at his court, some of whom were physicians skilled in medicine. The king's personal physician, Samuel Benvenist, translated Arabic medical texts, including a work on asthma by Maimonides, who had grown up in al-Andalus.[54]

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[48] Jose Ramon Guzman Alvarez, "El Compendio de Agricultura Atribuido a Ibn Wafid/al-Nahrawi: Nuevas Perspectivas sobre tu Autoria", *Anaquel de Estudios Arabes*, v. 26, 2005, p. 84.

[49] Julia M. Carabaza Navarro, "Traición y Innovación en las Ciencias de al-Andalus", *Saber y sociedad en al-Andalus*, (ed. Alejandro García Sanjuán), Universidad de Huelva Publicaciones, Huelva, 2006, p. 44.

[50] James Monreo, *Medieval Iberian Peninsula: Texts and Studies*, v. 3, Brill, Leiden, 1970, p. 240.

[51] Assis, *ibid.*, p. 37.

[52] Assis, *ibid.*, p. 36.

[53] Carmen Caballero-Navas, "Medicine among Medieval Jews: the Science the Art and the Practice", *Science in Medieval Jewish Cultures*, ed. Gad Freudental, Cambridge University Press, New York, 2011, p. 332.

[54] Assis, *ibid.*, p. 37.

In addition to the lands belonging to the Kingdom of Castile-León, the most important region where Islamic medical knowledge spread in the Iberian Peninsula was the regions under the Kingdom of Aragon. Especially in the 13th and14th centuries, many Arabic scientific works were translated into Catalan with the encouragement of Aragonese kings such as Jaime II, who was interested in Islamic sciences and patronized scholars of different religions at his court. Between the 13th and 15th centuries, forty-six Arabic medical works by Muslim scholars in Aragon were translated into languages such as Hebrew, Latin and Catalan.[55]

IV. Conclusion

Since its conquest by the Muslims in the 8th century, al-Andalus has attracted attention as a region where important developments have taken place in the field of medicine, as in other branches of science. In the first two centuries of Islamic rule, Muslims in the region had limited work in the field of medicine, but by the 10th century, a significant increase in the number of Muslim physicians was observed. Especially the patronage of physicians in their palaces by rulers such as Abdurrahman III and Hakam II contributed to the development of Andalusian medicine. As seen in the example of the translation of Dioscorides' *De Materia Medica* into Arabic in Cordoba, the transfer of the ancient medical heritage to Andalusia resulted in the recognition of Muslim physicians in the region and the enrichment of Andalusian medical literature. The scientific activities of the Christians and Jews living in al-Andalus in the field of medicine were another important factor in the development of Andalusian medicine. In addition to making the ancient medical heritage known to Muslim physicians through their translations from Greek and Latin into Arabic, they also helped Andalusian medicine to become better known in Europe through their writings based on Arabic medical texts.

From the 11th century onwards, the Christian conquest of Andalusian cities such as Toledo, Seville and Cordoba made it easier for Christians to become familiar with the important medical works in the libraries of these cities. The works of Muslim physicians who lived in Andalusia and other parts of the Islamic world were translated from Arabic into Western languages in the Iberian Peninsula and some European cities in the 12th-13th centuries. In the period following the translation activities, Islamic medical heritage began to attract intense interest in Western intellectual circles. This interest resulted in Western physicians benefiting from the medical works of scholars such as Ibn Sina, Zahrawi and Ibn Rushd. Similarly, especially from the 12th century onwards, the

[55] Garcia Sanchez, "Traducciones Catalanas de Textos Cientificos Andalusies en la Corona de Aragon", *Sharq al-Andalus*, no: 10-11, 1993-1994, p. 387.

works of Muslim physicians in the field of medicine were closely followed in the medical faculties of important European universities. Ibn Sina was introduced to Europe through translations from al-Andalus and his works, especially al-Canon, were used as textbooks in the leading universities of Europe for centuries, which is an example of the influence of Islamic medicine in the Western world.

The Islamic medical heritage, carried to Europe through translations from al-Andalus, aroused the curiosity of European medical circles from the 12th century onwards. With the encouragement of intellectual kings such as Alfonso X in the Kingdom of Castile-León and the Kingdom of Aragon in the Iberian Peninsula, translations from Arabic into Castilian and Catalan increased the recognition of Islamic medicine in Europe. In the following period, Arabic medical texts continued to be translated into Latin and Hebrew in regions such as France and Italy. Andalusian-Islamic medicine, which attracted the attention of many Western intellectuals during the Renaissance, continues its influence from the Middle Ages to the modern period.

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10th century Arabic version of Dioscorides' De Materia Medica, which was translated from Greek into Arabic in Qurtuba and became popular among Andalusian physicians.

In the Latin translation of Ibn Sina's al-Urjiza, the Muslim physician is depicted teaching his students.

Diseases and Their Effects on Louis IX's Crusades

Kazım UZUN*

Abstract

King Louis IX of France is one of the well-known figures who holds an important place in European history. His renown, however, does not stem solely from his position as King of France. He is also a prominent figure in both Eastern and Western history due to the Crusades he led. In 1244, Louis IX suffered a severe bout of malaria, and upon recovering he vowed to take up the cross. Indeed, after regaining his health he began making preparations, and between 1248 and 1250 he launched a Crusade. Although the Crusaders succeeded in capturing Damietta and advanced as far as Mansura, they were unable to proceed further. Defeated at Mansura, they remained for some time in their encampments near the city. During this period, diseases that spread among the Crusader troops caused great distress, and the King himself fell ill. As conditions deteriorated, King Louis was forced to retreat. The situation became so dire for the Crusaders that, in the end, most of them—including King Louis—fell captive to the Muslims. Although the King and some of the soldiers were eventually ransomed, the Seventh Crusade turned into a story of failure for the Crusaders.

After nearly twenty years, Louis IX decided to launch another Crusade. This time, he would attempt to reach the Holy Land from a different direction. In 1270 he set out with the Crusader army and advanced toward Tunis. He reached the shores of Carthage and landed there. Yet at the very outset of the campaign, diseases that appeared and spread among the Crusader troops caused many deaths. Among those who died during this abortive expedition was King Louis himself. Thus, the Crusading venture of Louis IX, which had begun during a period of illness, ended once again with illness during a Crusade. This study examines the diseases that emerged during the Crusades led by King Louis, their effects on the campaigns, and their ultimate consequences.

Keywords: King Louis, Seventh Crusade, Eighth Crusade, Disease, Damietta, Tunisia, Hafsids

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I. Introduction

After Jerusalem fell to the Muslims in 1187, despite the Third, Fourth, and Fifth Crusades, the Crusaders failed to achieve their goals and recapture Jerusalem. Despite these attempts, this failure remained a source of frustration for the papacy, Western kings, and the Christian world at large. Following several failed Crusades, Frederick II launched a new (VIth) Crusade in 1228. Although he succeeded in capturing Jerusalem without a fight in 1229, the city fell back to Muslim control after approximately fifteen years in 1244. Thus, the Crusaders were never able to regain control of the city.

In 1244, when the Muslims recaptured Jerusalem from the Crusaders for the last time, King Louis was struggling with a severe bout of malaria. His illness had become so grave that one of the women attending to him believed he had died and even attempted to cover his face. King Louis eventually recovered; the affliction that had immobilized his tongue subsided, and as soon as he regained the ability to speak, he requested that a cross be given to him[1]. His near-fatal encounter with this violent illness—followed by what he perceived as deliverance through divine intervention—encouraged him to undertake a Crusade, an expectation already shared by many, including the Pope.

Following his recovery, King Louis immediately began preparations for a Crusade. Although these preparations took several years, a Crusading army was eventually assembled. In August 1248, King Louis and his forces set sail and reached the island of Cyprus by mid-September. Remaining on the island for several months, the King conducted various diplomatic negotiations, finalized his plans, and completed the army's preparations. The King and the barons agreed that, as in earlier Crusading attempts, the army should not march directly on Jerusalem but instead campaign in Egypt. This strategy stemmed from the belief that lasting control over Jerusalem required the conquest of Egypt. Moreover, Egypt possessed immense wealth and thus constituted an extremely attractive repository of potential spoils. The Crusader fleet set sail during the last ten days of May 1249. When all vessels—large and small—were counted, the Crusading force numbered a total of 1,800 ships[2].

King Louis and the Crusader army arrived before Damietta on the evening of Friday, 5 June 1249. During this time, al-Malik al-Ṣāliḥ Najm al-Dīn Ayyūb, ruler of the Ayyubid state, had been monitoring developments through his spies and, upon learning that the Crusaders were advancing toward Damietta, entrusted its defense to one of his commanders, Fakhr al-Dīn b. Shaykh al-

[1] Jean de Joinville, "The Life of Saint Louis", *Joinville & Villehardouin, Chronicles of the Crusades*, ed. – trans. M. R. B. Shaw, London 1977, p. 191.
[2] Joinville, *The Life of Saint Louis*, p. 201.

Shuyūkh, while also reinforcing the city's garrison. Amir Fakhr al-Dīn strengthened the defensive measures within the city and then positioned his forces on the western bank of the Nile opposite Damietta.

Despite the preparations made by the Ayyubid troops, the Crusaders, through their initial assaults, managed to gain the upper hand over the Muslims, land on the shore, and secure their position there. While these events were unfolding before Damietta, Sultan al-Malik al-Ṣāliḥ Najm al-Dīn Ayyūb had arrived at Ashmūn Ṭanāḥ (اشمون طناخ), where he established his encampment and withdrew to rest. The Sultan had long been suffering from tuberculosis, and his illness had become significantly more severe during this period[3].

Unable to withstand the Crusaders' assault, the Muslim forces were compelled to withdraw to the eastern bank of the Nile, toward the city of Damietta. After issuing several orders to the troops in the city and ensuring that the Muslim soldiers had completed their crossing, Amir Fakhr al-Dīn ordered the destruction of the bridge constructed over the river and departed from Damietta to join the Sultan at Ashmūn Ṭanāḥ. However, the soldiers either forgot to destroy the bridge or were unable to do so due to the prevailing chaos and confusion[4]. As a result, the Crusaders were able to cross the river with ease and advance closer to the city of Damietta.

The departure of Amir Fakhr al-Dīn - and shortly thereafter of the defending troops and the Muslim inhabitants- heightened the panic and left Damietta exposed to Crusader capture. Following these developments, the Crusaders, though astonished by the ease of their success, managed to enter the city on Sunday, 7 June. Thus, Damietta fell into Crusader hands within two days[5]. When the Sultan learned of these events, he became furious and punished several soldiers whom he held responsible for the loss of the city by executing them[6]. He also reprimanded Amir Fakhr al-Dīn, although the situation did not permit the imposition of a harsher penalty[7].

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[3] Ibn Wasil, *Mufarrij al-Kurub fi Akhbar Bani Ayyub*, Vol. VI, ed. Omar Abd al-Salam al-Tadmuri, Saida-Beirut 2004, p. 63-4; al-Maqrîzî, *Kitâb al-Sulûk li-Ma'rifat Duwal al-Mulûk*, Vol. 1/2, ed. Muhammad Mustafa Ziyada, al-Qahira 1936, p. 333.

[4] See Jean de Joinville, *Bir Haçlının Hatıraları*, trans. Cüneyt Kanat, Ankara 2002, p. 90, n. 40.

[5] Abū Shāma, *Tarājim Rijāl al-Qarnayn al-Sādis wa-al-Sābiʿ al-Maʿrūf bi-al-Dhayl ʿalā al-Rawḍatayn*, ed. İbrahim Şams al-Dîn, Beirut 2002, s. 281-82; Joinville, *The Life of Saint Louis*, p. 204-6; (anon.) *Crusader Syria in the Thirteenth Century, The Rothelin Continuation of the History of William of Tyre with Part of the Eracles or Acre text*, trans. Janet Shirley, Aldershot 1999, p. 87; see also Ramazan Şeşen, *Selahaddin'den Baybars'a Eyyubiler – Memluklar (1193-1260)*, İstanbul 2007, s. 216-17.

[6] al-Makīn Jirjis Ibn al-ʿAmīd, *Akhbar al-Ayyubiyyîn*, ed. Claude Cahen, *Bulletin d'Études Orientales*, Vol. 15 (1955-1957), p. 158; Sibṭ Ibn al-Jawzī, *Mir'āt al-Zamān fî Tawārīkh al-Aʿyān*, Vol. 22, ed. İbrahim Zaybak, Damascus 2013, s. 408.

[7] al-Maqrîzî, *Kitâb al-Sulûk*, p. 336; see also Amalia Levanoni, "The Mamluks' Ascent to Power in Egypt", *Studia Islamica*, No. 72, s. 121-144.

In fact, one of the reasons for the chaos that contributed to the Muslim loss of the city was the inability to communicate with the Sultan. After the Crusaders had landed, Emir Fakhr al-Dīn had sent several messages to the Sultan by carrier pigeon. However, when no reply was received, it was assumed that the Sultan had died. They did not realize that the Sultan had been asleep due to medication taken for his illness, and that his physician had insisted he not be disturbed[8].

Following the capture of Damietta by the Crusaders, it became necessary to formulate a new strategy. Sultan al-Malik al-Ṣāliḥ Najm al-Dīn Ayyūb relocated his headquarters from Ashmūn Ṭanāḥ to Mansūra. He himself embarked on a warship and traveled to the city via the Nile. Meanwhile, calls for jihād were issued in Cairo and other nearby cities, urging the civilian population to come to Mansūra in order to join the fight against the Crusaders[9]. During this period, the Crusaders also instituted certain measures in Damietta. As the season of the Nile's flooding was approaching, they decided to remain in the city for some time and to await reinforcements, including the arrival of King Louis's brother, Alphonse de Poitiers, who was expected to come from France.

King Louis's brother Alphonse arrived in Damietta on 24 October 1249 together with the reinforcements[10]. The arrival of these forces prompted King Louis to summon all the barons for a council, during which they resolved to march on Cairo. After completing their final preparations, the Crusaders set out on 20 November 1249[11]. Advancing by both land and river, they proceeded in the direction of Cairo. However, before reaching Cairo, they were compelled to pass through Mansūra, where the Ayyubid army was stationed.

A few days after the Crusaders began their advance, on 24 November, Sultan al-Malik al-Ṣāliḥ Najm al-Dīn Ayyūb passed away[12]. Amir Fakhr al-Dīn assumed command and dispatched a message to Turānshāh, the Sultan's son in Ḥiṣn Kayfā, urging him to come at once. Although efforts were made to conceal the Sultan's death, the Crusaders learned of it approximately a week later. Elated by the news, they believed that they would now be able to capture Mansūra with ease and continue their advance.

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[8] (anon.) *Kitâb al-Khavadis*, ed. Başşar Avvâd Ma'rûf – İmâd Abd al-Salâm, Beirut 1997, p. 284; Joinville, *Bir Haçlının Hatıraları*, p. 89.

[9] Ibn Wasil, *Mufarrij al-Kurub*, VI, p. 76; Ibn al-Furât, *Ayyubids, Mamlukes and Crusaders, Selections from the Târîkh al-Duwal wa'l-Muluk*, Vol. I, Cambridge 1971, p. 20-23; see also Muhammad Mustafā Ziyada, *Hamlat Luwīs at-Tāsi' 'alā Misr wa-Hazīmatuhū fī 'l-Mansūra*, al-Qahira 1961, p. 130.

[10] Joinville, *The Life of Saint Louis*, p. 209-10; Joinville, *Bir Haçlının Hatıraları*, p. 94.

[11] Joinville, *Bir Haçlının Hatıraları*, p. 95; Steven Runciman, *Haçlı Seferleri Tarihi*, Vol. 3, trans. Fikret Işıltan, Ankara 2008, p. 225.

[12] Ibn Wasil, *Mufarrij al-Kurub*, VI, p. 81; al-Makīn Ibn al-ʿAmīd, *Akhbar al-Ayyubîyyîn*, p. 159.

Encouraged by the favorable news they had received, the Crusaders continued their advance, reaching Fariskur and then proceeding toward Mansūra. Meanwhile, militia forces from Cairo, responding to the call for jihad, had also begun marching toward the Crusaders. Amir Fakhr al-Dīn had taken up positions near Mansūra and dispatched part of his cavalry units to delay the Crusader advance. As the two sides drew closer, they eventually confronted one another, and on 8 December 1249 a fierce battle ensued. The Crusaders emerged victorious in this engagement and continued onward, first reaching Baramūn and then arriving near Mansūra, where they succeeded in establishing their camp[13].

At this point, the Muslims were positioned on the Mansūra side of the Bahr al-Ṣaghīr branch of the Nile, while the Crusaders held the opposite bank. Both sides attempted various measures to wear each other down; however, no major confrontation took place during this period, and they remained in this standoff for approximately six weeks.

The Crusaders' attempts to build a bridge in order to cross the river were continually thwarted by the Muslims. During this time, a local Copt, in exchange for money, revealed to the Crusaders a shallow point of the Bahr al-Ṣaghīr branch of the Nile[14]. As a result, on 8 February 1250, approximately 1,500 Crusader knights and soldiers under the command of King Louis's brother, Robert d'Artois, crossed the river and launched a sudden assault on the Muslim encampment. Caught unprepared, many Ayyubid soldiers –as well as Amir Fakhr al-Dīn– were killed in the attack[15]. The Muslim forces, having suffered heavy casualties, retreated into the city of Mansūra. Following the death of Amir Fakhr al-Dīn, the Bahri Mamluk amirs within the Ayyubid army assumed command and implemented a new tactic. They left the gates of Mansūra open, allowing the Crusader knights to enter the city and disperse through its streets. At that moment, the Muslim troops and townspeople stationed within the city suddenly attacked the Crusaders. Almost the entire Crusader vanguard, including Robert d'Artois, was annihilated[16]. Meanwhile, upon receiving word that the situation in Mansūra had turned against the Crusaders, King Louis attempted to send a relief force; however, subsequent reports informed him that it was already far too late.

After their defeat, the Crusaders retreated to their encampment on the opposite bank of the river. Meanwhile, the Muslim soldiers and the populace, demoralized by the initial defeat, rallied with the victory at Mansura. Shortly

[13] Joinville, *Bir Haçlının Hatıraları*, p. 97; al-Maqrîzî, *Kitâb al-Sulûk*, p. 347.
[14] Joinville, *Bir Haçlının Hatıraları*, p. 97; al-Maqrîzî, *Kitâb al-Sulûk*, p. 347; Joseph Nasîm Yûsuf, *al-Udwan al-Salibî alâ Mısr, Hazimat Luwis al-Tâsi fî al-Mansûra wa Fâriskûr*, al-Qahira 1969, p. 160.
[15] Abū Shāma, *Tarājim*, p. 283; Ibn Wasil, *Mufarrij al-Kurub*, VI, p. 111; al-Nuwayrī, *Nihāyat al-Arab fī Funūn al-Adab*, Vol. 29, ed. Najib Mostafa Fawwaz – Hikmat Khaslî Fawwaz, Beirut 2004, p. 29; Ziyada, *Hamlat Luwīs at-Tāsi'*, p. 148-49.
[16] Ibn Wasil, *Mufarrij al-Kurub*, VI, p. 112; Joinville, *Bir Haçlının Hatıraları*, p. 105.

thereafter, the late Sultan's son, Turānshāh, arrived in Mansūra on 25 February 1250 and assumed power as the new sultan[17]. His arrival further boosted the morale of the Muslim forces. Sultan Turānshāh then pursued a strategy aimed at encircling and blockading the Crusaders, whose situation steadily deteriorated with each passing day.

Sultan Turānshāh began by cutting off the Crusaders' supply lines. Supplies coming from Damietta were particularly crucial, and the Sultan took measures to prevent them from reaching the Crusaders. He commissioned the construction of light, fast-moving vessels, which were deployed against the Crusader ships coming from Damietta. In this way, all reinforcements that the Crusaders attempted to bring from Damietta were intercepted. During this period, the Muslims first captured a total of eighty Crusader ships, and later seized another convoy of thirty-two vessels, placing the Crusader forces in the encampment in a very difficult position[18]. After the battle at Mansūra, the Crusaders had not withdrawn, anticipating potential reinforcements from Damietta and renewed attacks. However, despite the Muslim blockade and all their efforts, the Crusaders' inability to break the siege led to the emergence of new adversaries: famine and disease.

The Crusaders' failure to withdraw immediately to Damietta after the Battle of Mansūra was a strategic mistake that produced grave consequences. In the period following the battle, the Ayyubid and Crusader armies were positioned on the eastern bank of the Nile, separated only by the Bahr al-Ṣaghīr, one of the river's branches. Since the Muslims cut off the aid arriving from Damietta by way of the river and kept this route under constant surveillance with patrol vessels, the Crusaders became trapped between the river and the Muslim forces simultaneously pressing them from the landward side. The severing of their supply lines caused hunger in the Crusader camp to increase with each passing day. Indeed, for the fortunate there were horses and mules to eat, while those with fewer means had nothing but cats and dogs[19].

Furthermore, the corpses of those who had perished during the fighting and been thrown into the river by Ayyubid soldiers had become a growing danger. As these bodies began to decay and rise to the surface, they created conditions ripe for the spread of disease. In addition, fish that fed on the decomposing corpses were eaten by the starving Crusader soldiers, leading to the rapid spread of illness throughout the camp. This unbearable situation endured by the

[17] Ibn Wasil, *Mufarrij al-Kurub*, VI, p. 118; Abū ăl-Fidā', *Tārīkh Abī al-Fidā*, Vol. 2, ed. Mahmûd Dayyub, Beirut 1997, p. 286-87.
[18] Runciman, *Haçlı Seferleri*, p. 227.
[19] *The Rothelin Continuation*, p. 103-9; *Matthew Paris's English History*, Vol. II, trans. J. A. Giles, London 1853, p. 334.

Crusaders is described in detail by Joinville, who shared the same tragic circumstances. From his account:

> "Soon after the two battles I have described, the army entered on a period of great distress. At the end of nine days the bodies of our people killed by the Saracens came to the surface of the water, owing, so it was said, to the fact that the gall had putrified. These bodies came floating down to the bridge between our two camps, but could not pass under it because the water was up to the arches. There was such a number of them that all the river was full of corpses, from one bank to the other, and as far upstream as one could cast a small stone.
>
> The king had hired a hundred rough fellows, who took a good week to clear the river. They flung the bodies of the Saracens, who were circumcised, over the further side of the bridge, and let them float down with the current; the Christians were buried in great trenches, all together. I saw the Chamberlains of the Comte d'Artois, and many other people, seeking for their friends among the dead; but I never heard that any one of them was found there.
>
> The only fish we had to eat in camp for the whole of Lent were eels, which, being greedy creatures, feed on the dead. On account of this evil circumstance, and because of the unhealthy climate - for not a drop of rain ever falls in Egypt - a disease spread through the army, of such a sort that the flesh on our legs dried up, and the skin became covered with black spots and turned a brown earthy colour like an old boot. With those who had this disease the flesh on the gums became gangrened; and no one who fell a victim to it could hope to recover, but was sure to die. An infallible sign of death was bleeding from the nose.
>
> A fortnight later the Turks did something that came as a great shock to our people. In order to starve us they took several of their galleys lying upstream above our camp, and after dragging them overland put them back into the river, a good league below the place where our tents were pitched. These galleys caused a famine among us; for because they were there no one dared to come up the river from Damietta to bring us fresh supphes of food. We ourselves were completely ignorant of all this until a Uttle ship, belonging to the Comte de Flandre, took advantage of the current to shp past the blockade, and gave us news of the enemy's position, informing us at the same time that the sultan's galleys had captured some eighty

> of ours as they were coming up the river from Damietta, and slaughtered every man aboard them.
>
> In consequence there was a great scarcity of provisions in the camp; so much so that by Easter an ox was valued at eighty livres, a sheep or a pig at thirty livres each, while an egg cost twelve deniers and you had to pay ten livres for a barrel of wine"[20].

The continued spread of diseases among the Crusaders further increased the pressure upon them. Consequently, seeking relief from this situation, the Crusaders attempted to pursue a diplomatic solution and presented several proposals to the Muslims. However, not only did the Muslims reject these proposals, but they also submitted counteroffers of their own, which the Crusaders likewise refused, resulting in the failure to reach an agreement. Yet the passage of time during the negotiations worked to the detriment of the Crusaders. Dysentery, malaria, and scurvy had become so widespread among the soldiers that first Joinville, and shortly thereafter King Louis himself, could not escape falling ill[21]. Joinville describes in his work the increasingly worsening conditions caused by the ever-spreading diseases as follows:

> "The sickness that had stricken the army now began to increase to such an alarming extent, and so many people suffered from mortification of the gums that the barber surgeons had to remove the gangrenous flesh before they could either chew their food or swallow it. It was pitiful to hear around the camp the cries of those whose dead flesh was being cut away; it was just like the cry of a woman in labour"[22].

The failure to reach an agreement between the Crusaders and the Muslims, coupled with the increasingly widespread diseases, made King Louis realize that conditions had become intolerable[23]. King Louis then, taking all risks, ordered the disbandment of the Crusader camp and the preparations for a retreat towards Damietta by both river and land. In accordance with the King's command, on Tuesday, 5 April 1250, the Crusaders set out to withdraw by both routes. However, as the Crusaders had anticipated, Muslim forces intercepted them on land and on the river, pursued them closely, and launched attacks against

[20] Joinville, *The Life of Saint Louis*, p. 236-37.
[21] Joinville, *Bir Haçlının Hatıraları*, p. 129.
[22] Joinville, *The Life of Saint Louis*, p. 239.
[23] In a letter he wrote later, King Louis himself stated that during this period, diseases devastated both the soldiers and the horses in the Crusader army and that many people died due to hunger. See, Peter Jackson, *The Seventh Crusade, 1244-1254: Sources and Documents*, Surrey 1999, p. 110; Abdurrahman Onur Çalışır, *Denizaşırı Ülke'den Havadisler, Haçlıların Mektupları (1097-1252)*, İstanbul 2018, p. 141.

them. After the retreat commenced, King Louis's illness grew more severe, and unable to continue on his way, he was compelled to take refuge in a village to rest[24]. Joinville describes the severity of King Louis's illness as follows:

> "…After we had escaped that danger and were going down with the stream, the king, who was suffering from the sickness that had attacked the army, and from very bad dysentery as well, could easily have got away in the galleys, had he wished to do so; but he said, please God, he would never desert his people. That night he fainted several times, and because the dysentery from which he suffered continually obliged him to visit the privy, they had to cut away the lower part of his drawers"[25].

The Muslim soldiers continued their constant assaults on the Crusaders, who were already in retreat. The condition of the Crusader forces, already devastated by hunger and disease, deteriorated further with each passing moment. At this time, with the King's permission, a renewed possibility arose for negotiating the terms of an agreement through Lord Philippe de Montfort and one of the Muslim amirs[26]. However, before this possibility could materialize, a disloyal sergeant within the Crusader army suddenly appeared and began shouting, "Surrender, all you knights, for the king commands it, and do not let His Majesty be slain!" Because of the ensuing chaos, the Crusaders believed that this was indeed an order from King Louis, and consequently they began to surrender. Shortly after this incident on land, a similar development occurred on the river. The Crusaders who were retreating by boat found themselves surrounded by vessels carrying Muslim soldiers. Realizing that there was no possibility of escape or resistance, the Crusaders on the river, too, were forced to surrender[27].

The subsequent course of the Seventh Crusade, which King Louis had launched with great hopes, unfolded through the killing of some prisoners, acts of torture, negotiations, and ultimately the conclusion of a treaty. So many Crusader soldiers had fallen into Muslim captivity that, unable to determine how to manage such a large number of prisoners, the Muslims killed those who were ill or unable to walk. King Louis, whose illness prevented him from continuing his journey, was captured in the village of Munyet Abu ʿAbd Allāh, where he had withdrawn to rest. He was then taken to Mansura and placed in a house there.

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[24] Joinville, *Bir Haçlının Hatıraları*, p. 131; al-Maqrîzî, *Kitâb al-Sulûk*, p. 356-57.
[25] Joinville, *The Life of Saint Louis*, p. 240; See also al-Dhahabī, *Tārīkh al-Islām wa-Wafayāt al-Mashāhīr wa-al-Aʿlām*, Vol. 47, ed. Umar Abd al-Salām al-Tadmurī, Beyrut 1998, p. 50-51.
[26] Joinville, *Bir Haçlının Hatıraları*, p. 132; al-Maqrîzî, *Kitâb al-Sulûk*, p. 357; See also Işın Demirkent, *Haçlı Seferleri*, İstanbul 1997, p. 218.
[27] Joinville, *Bir Haçlının Hatıraları*, p. 133-36.

After the remaining captives were secured, negotiations commenced, and eventually King Louis agreed that the Crusaders would evacuate Damietta and withdraw to Acre, and that they would pay approximately one million Byzantine gold coins in return for the sparing of their lives[28].

Following the conclusion of the agreement, the King and the other Crusader captives were first taken to Fariskur and then placed on ships bound for Damietta. Upon their arrival in Damietta, the Crusaders evacuated the city in accordance with the agreement, and King Louis' wife, who was in the city, left the city and came to the King. For the King and the other Crusaders to leave the region, the first installment of the ransom had to be paid. At last, the required sum was completed and paid with funds obtained from the Templars. On 6 May 1250, Damietta was surrendered to the Muslims, and later that same evening, the King and his retinue departed the region for Acre[29].

Despite his mother's insistence, King Louis did not immediately return to France. He remained in Acre for several years and assumed the administration of the kingdom. Although he undertook certain initiatives and achieved some diplomatic successes, none of these were sufficient to compensate for the disaster of the crusade. Although he wished to continue residing in the East, the death of his mother, Queen-Regent Blanche, in 1252, followed shortly thereafter by growing instability in France, reminded King Louis of the primacy of his responsibilities at home. After putting affairs in the East in order as best he could, he set sail from Acre on 24 April 1254 and returned to his realm[30].

II. A New Crusade, More Diseases, and Defeat Again

Even after his return to France, King Louis could never forget the Holy Land. Moreover, the fact that the crusade he had launched with such grand aspirations had ended in disaster only deepened his sense of responsibility and fueled his desire to undertake new initiatives to atone for it. Meanwhile, King Louis continued to receive regular news from the East, and he also sent a yearly sum of money to support the needs of the garrison he had left in Acre[31]. His brother Alphonse likewise did not hesitate to encourage and support King Louis in planning a new crusade[32]. Despite these aspirations, King Louis was compelled for a long time to deal with the internal affairs of his kingdom, and it took

[28] Runciman, *Haçlı Seferleri*, p. 231; see also Jean Richard, *Saint Louis, Crusader King of France*, trans. Jean Birrell, Cambridge 1992, p. 130-32.
[29] Joinville, *Bir Haçlının Hatıraları*, p. 150-56; *The Rothelin Continuation*, p. 103-9.
[30] Runciman, *Haçlı Seferleri*, p. 239; Richard, *Saint Louis,* p. 146-50; Joseph R. Strayer, "The Crusades of Louis IX", *A History of the Crusades*, Vol II, ed. Kenneth M. Setton - Robert Lee Wolff - Harry W. Hazard, London 1969, p. 507-8.
[31] Runciman, *Haçlı Seferleri*, p. 247.
[32] Strayer, "The Crusades of Louis IX", p. 508.

considerable time before he could begin preparing for another crusading expedition. During this period, his brother Charles d'Anjou, known for his political ambitions, succeeded in becoming King of Sicily in 1266 with the support of the papacy[33].

While King Louis was occupied with the affairs of his kingdom, developments in the East were progressing in a manner far from favorable to the Crusaders. Sultan Baybars of the Mamluk Sultanate, who had been on the throne for many years, had significantly consolidated his power. He defeated the Mongols and the Armenians and succeeded in keeping them under pressure. Moreover, he gradually captured the Crusader fortresses and cities in the East one after another. In 1265, Sultan Baybars recaptured Caesarea and Arsuf from the Crusaders; the following year he seized Safad, and in 1268 he succeeded in retaking both Jaffa and Antioch[34]. These achievements of Sultan Baybars also indicated that the remaining Crusader-held cities and fortresses in the East might soon face the same fate.

After King Louis had addressed the affairs of his kingdom to a reasonable extent, he considered the year 1267 an opportune moment to embark on a new Crusade. However, in addition to the fatigue accumulated over the years, his health was far from robust. Nevertheless, the King began preparations. He summoned his barons to Paris for consultations, and the necessary financial resources for the expedition, as well as other logistical arrangements, were organized. The preparatory phase was, once again, far from brief; the arrangements for the new Crusade were not completed until 1270, by which time the King was finally ready to set out for the Holy Land.

Despite all preparations, there were those who opposed King Louis embarking on a new Crusade, one of whom was Joinville. Joinville argued that after the King's return to France, he had, after considerable effort, restored internal peace and organized foreign relations, and that a new expedition would undo these achievements. Moreover, given the King's illness and exhaustion, Joinville did not hesitate to assert that anyone who advised him to undertake another Crusade was committing a grave sin[35].

In addition to those who opposed King Louis embarking on a Crusade, there were also those who viewed the expedition as an opportunity to advance their own political interests. After becoming King of Sicily, the King's brother Charles d'Anjou grew even more ambitious, aspiring to dominate all of Italy and

[33] See Jean Dunbabin, *Charles I of Anjou, Power, Kingship and State-Making in Thirteenth-Century Europe*, New York 2014, p. 55 ff.
[34] See Ali Aktan, "Memlûk – Haçlı Münasebetleri", *Belleten*, C. 63/S. 237 (1999), p. 416–422; Süleyman Özbek, *Moğolları Durduran Türk Sultan Baybars*, Ankara 2018, p. 40-62.
[35] Joinville, *Bir Haçlının Hatıraları*, p. 252-53.

even contemplating a campaign against Byzantium[36]. Charles preferred that any Crusade be directed not toward the distant Holy Land, but toward a region where it could serve his own interests. That region was none other than the territory of the Hafsid ruler Muhammad I al-Mustansir in Tunisia, who had angered Charles by providing refuge to rebels fleeing Sicily. Moreover, Muhammad was a ruler known for treating Christians well, and with some pressure, he might even have been persuaded to convert to Christianity[37]. Such an outcome would have secured a highly strategic province for future Crusades. Given King Louis's previous failure, achieving such a success could have compensated for all earlier setbacks. Nevertheless, it appears that the decision regarding the target of this final Crusade was made only after extensive negotiations[38].

After the preparations for the new Crusade were completed, which some scholars consider the Eighth Crusade and others a continuation of the Seventh, King Louis set sail from Aigues-Mortes on July 1, 1270. Following a seventeen-day voyage, the Crusaders reached the coast of Tunisia, arriving before Carthage. Muhammad I had already taken measures to defend his territory: he fortified his capital, strengthened its walls, and secured additional provisions. Meanwhile, the Crusaders landed on 18 July. Although the Tunisians attempted to impede their progress and restrict their access to water, the Crusaders soon reached the city of Carthage. They entered the old citadel of Carthage and transformed it into the headquarters of the Crusader army.

King Louis, however, was cautious about taking immediate action. Considering the disaster of the 1248 expedition, his caution was not unfounded. He decided to wait until his brother Charles d'Anjou, advancing with his army from the rear, could join him, thereby avoiding a major offensive. Similarly, Muhammad I, secure behind the walls of his capital, concluded that a defensive, waiting strategy would be more effective than launching a large-scale attack, and he adhered to this approach.

In mid-July, maintaining a defensive, waiting strategy along the coast of Tunisia proved far from strategic, especially for an external military force. Each day of delay in Charles d'Anjou's arrival worked to the Crusaders' disadvantage. The extreme heat, poor hygiene within the Crusader camp, and scarcity of clean water created conditions reminiscent of those near Mansura. During the approximately one-month waiting period, outbreaks of dysentery and plague

[36] Runciman, *Haçlı Seferleri*, p. 248.
[37] Runciman, *Haçlı Seferleri*, p. 248; See, Strayer, "The Crusades of Louis IX", p. 514.
[38] See, Strayer, "The Crusades of Louis IX", p. 512-14; Harry W. Hazard, "Moslem North Africa, 1049-1394", *A History of the Crusades*, Vol III, ed. Kenneth M. Setton - Harry W. Hazard, Wisconsin 1975, p. 472-75; see also, Francesco Paolo Tocco, "Sicilya'da Anjou Krallığı", trans. Leyla Tonguç Basmacı, in *Ortaçağ III, Şatolar, Tüccarlar, Şairler*, ed. Umberto Eco, İstanbul 2015, 129-31.

emerged and rapidly spread throughout the camp. Many, including the King's accompanying sons, fell ill. Before long, King Louis himself contracted dysentery, and his already fatigued body could not endure the disease for long. King Louis died in the camp on 25 August 1270, his final words reportedly being, "O Jerusalem, O Jerusalem"[39].

Immediately following the death of King Louis, Charles d'Anjou arrived at Carthage with his forces. However, it was too late for him to join the King's troops, and he was not particularly eager for combat in any case. The death of King Louis and the spread of epidemic disease within the camp necessitated a new plan. Under these circumstances, seeking a negotiated settlement appeared to be the most rational option. Muhammad I was also reluctant to engage in battle, as the disease had begun to appear in the Hafsid camp as well. The lack of strong insistence on either side facilitated the conclusion of an agreement. Nevertheless, Charles d'Anjou sought to extract as much benefit from the terms as possible. Although the amount was only a small fraction of the Crusaders' expenses, Muhammad I agreed to pay a war indemnity. Additionally, as King of Sicily, Charles secured certain privileges along the Tunisian ports and coasts[40]. Following the conclusion of the treaty, the Crusaders boarded their ships on 1 November to depart from Tunisia.

III. Conclusion

After a period marked by severe illness, King Louis IX of France launched a Crusade in 1248. Following their departure from Cyprus, the Crusaders reached the Egyptian coast, successfully besieging and capturing Damietta. Emboldened by this significant achievement, the King sought to crown his success by advancing on Cairo, and the Crusaders proceeded as far as Mansura. However, the resistance posed by the Muslim army, led by the Mamluks, halted their advance. At Mansura, the Crusaders made a strategic error by choosing to wait for reinforcements rather than retreating at least to Damietta. With the Muslim forces maintaining a tight blockade, the Crusaders found themselves effectively trapped in their encampment. From this point on, hunger and poor hygiene gave rise to diseases that became the true adversaries of the Crusaders. The Muslims' role was largely passive; they simply held their positions while disease –dysentery, malaria, and scurvy– gradually incapacitated a significant portion of the Crusader forces. Eventually, unable to endure further, the Crusaders were captured by Muslim forces. Those who survived could only secure their release by paying a ransom, bringing the Seventh Crusade to an end. In other words, the effective defence by Muslim forces, the Crusaders' strategic

[39] Guillaume de Saint-Pathus, *Vie de Saint Louis*, ed. Henri-François Delaborde, Paris 1899, p. 155.
[40] Strayer, "The Crusades of Louis IX", p. 516-17.

errors, and the outbreak of disease collectively determined the outcome of the expedition.

A similar scenario unfolded nearly twenty years later in Tunisia. Seeking to atone for the failure of the Seventh Crusade, King Louis IX planned a new expedition, this time targeting Tunisia. Yet, unlike in Damietta, the Crusaders achieved no even partial success. Before the campaign could properly commence, disease began to afflict the Crusaders stationed at Carthage. By launching the expedition in the height of summer without adequate precautions, King Louis and his forces once again committed a major strategic error. Disease quickly spread, affecting many Crusaders, including the King himself, who succumbed to illness. Once again, disease played a decisive role in determining the outcome of the Eighth Crusade. It can be argued that the expedition's effective failure even before its proper beginning symbolically marked the end of the Crusading era.

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Scabies: Ḥādjī Pasha's (fl.1421) Clinical and Theoretical Approach to Itching

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Abstract

This study focuses on Ḥādjī Pasha's discussion of scabies and itching in his famous medical compendium *Shifāʾ al-Asqām wa Dawāʾ al-Ālām*, which was originally written in Arabic in 1380 and subsequently translated into the Old Turkish. Scabies, caused by *Sarcoptes scabiei*, has supposedly afflicted human beings for millennia, producing persistent discomfort and dermatological irritation throughout history. The scarcity of scholarly data impedes establishing whether scabies was widespread across the population or confined to specific locales in Anatolia during the fourteenth and fifteenth centuries. Nevertheless, Ḥādjī Pasha, one of Anatolia's most prominent physicians and scholars, provided one of the earliest clinical and therapeutic accounts of scabies and itching in general. In a chapter in his compendium, although he distinguished scabies (*jarab*) from general itching (*hikka*), he treated both conditions together, and both terms were likely used in a broader sense, encompassing various pruritic and non-pruritic dermatological conditions. Accordingly, this chapter examines the author's conception of the medical conditions he referred to as scabies and itching by comparing the Old-Turkish and Arabic versions of his book, which reveal certain omissions and additions relative to one another. In doing so, it seeks to contribute to the history of medical knowledge, with a particular focus on scabies and itching as understood by Ḥādjī Pasha in late fourteenth-century Anatolia.

Keywords: Early Medical Knowledge, Anatolia, Ḥādjī Pasha, Scabies, Itching.

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I. Introduction

Scabies, a highly contagious parasitic disease, causes considerable distress in humans due to its intense itching and irritation. In a medical Garshūnī manuscript found in Lebanon, likely dating from the late seventeenth or early eighteenth century, the translator appears to have been so exasperated that he implored divine protection for his land not only from the plague, but particularly from scabies.[1] For this reason, given that a premodern medical author perceived scabies exaggeratedly as causing distress comparable to that of the plague, it might be helpful to examine premodern understandings of the disease, which may require analysis and more attention in contemporary scholarship. However, scarcity of the available sources prevents a comprehensive historical analysis of scabies cases in earlier Anatolia. Although numerous academic studies have explored the historical occurrence of scabies, evidence concerning cases within Anatolia under Turkish-Islamic rule remains largely confined to late archival records from the nineteenth century.[2] Therefore, no comprehensive scholarly work could have yet been published on the earlier periods. This absence may be attributed, at least in part, to the fact that early references to scabies are predominantly confined to canonical medical works, where the condition is discussed primarily in clinical terms. Such a focus may have led modern scholarship to overlook the disease's potential to spread more widely, if indeed it ever reached such proportions at certain times and in specific regions in earlier Anatolia. Nevertheless, given the scarcity of sources, any such assumption remains speculative and lacks sufficient evidence to support the notion that scabies ever reached the level of an epidemic.

The Garshūnī translator's comparison of scabies with the plague, emphasizing the distressing effects of both diseases, initially motivated this study to reconsider the premodern understanding of scabies. In addition, the research focused on the following questions: What did premodern physicians understand by "scabies" and "itching"? Which theoretical frameworks guided their definitions of the disease, and how did they approach its clinical manifestations? The scope of this study was deliberately limited to Ḥādjī Pasha and a single chapter entitled "*Scabies and Itching*" in his renowned medical compendium *Shifāʾ al-Asqām wa Dawāʾ al-Ālām* (*Recovery from Diseases and Remedy for*

[1] It has been established that the manuscript includes an Arabic translation of *Breve Compendio di Maravigliosi Secreti*, which was written by the Italian pharmacist Domenico Auda (fl. 1664). See, Kadir Çelik, 'Domenico Auda'nın "Breve Compendio Di Maravigliosi Secreti" Adlı Eserinin Garşûnî Tercümesi ve Osmanlı Lübnan'ında Tıbbî Bilginin Dolaşımı' (Master's Thesis, Istanbul Medeniyet Üniversitesi, 2025), 349.

[2] Nevim Tüzün and Ayşe Erkmen, 'A Study on Scabies in The Ottoman Empire with Regard to Archive Resources', *Tarih İncelemeleri Dergisi* 37, no. 2 (2022): 2, https://doi.org/10.18513/egetid.1226583; Şenay Atam, 'Arşiv Belgelerine Göre Osmanlı'dan Cumhuriyete Uyuz Hastalığı (1850-1950)', *Kongreye Sunulan Bildiriler III. Cilt - II. Kısım* 3 (2024): 1253–81, https://doi.org/10.37879/9789751756442.2023.52.

Pains), which was originally written in Arabic in 1380 and subsequently translated into Old Turkish. Despite its historical importance, the work still remains largely unexamined and lacks a complete critical Arabic edition and modern translation.[3] In fact, Ḥādjī Pasha and his works have primarily attracted attention in Turkish academic studies, with a number of theses and dissertations focusing on his Old Turkish medical and Arabic theological corpus while they seem to have received insufficient scholarly attention in Western academic circles.[4]

In this chapter, *Shifāʾ al-Asqām* and its Old Turkish version, *Muntakhab-ı Shifāʾ* (*Selections from the Book of Shifāʾ*), are compared to assess their coherence and to examine Ḥādjī Pasha's medical understanding of scabies particularly its causes, clinical manifestations, and treatments in both texts. The examination shows that in the Old Turkish version of the text, frequently cited in Turkish academic studies, the chapter on scabies and itching are incomplete and partially altered compared to the original Arabic manuscript. In doing so, this study seeks to advance our understanding of how Ḥādjī Pasha conceptualized and responded to this distressing skin disease, while also making a modest contribution to comprehension of medical knowledge and practice in Anatolia under early Turkish-Islamic rule, and presenting the first known English translation of the relevant texts.

[3] In Turkish academic scholarship, Süheyl Ünver and Adnan A. Rıza have made limited yet noteworthy contributions to the study of *Shifāʾ al-Asqām*; see Ahmet Süheyl Ünver, *Hekim Konyalı Hacı Paşa: Hayatı ve Eserleri* (TC İstanbul Üniversitesi Tıp Tarihi Enstİtüsü, 1953); Adnan A. Rıza, 'Hacı Paşa'nın Kitab-ı Şifaül Eskam ve Devaül Alam Adlı Eseri Üzerinde İncelemeler' (Master's Thesis, Ankara Üniversitesi, 1987). On the other hand, several scholars have made contributions toward preparing a critical edition of the text; however, as far as is known, the edition has not yet been completed. See, Haji Pasha Kedr Bin Ali Al-Aydini, *Shefaa Al-Asqam Wa Dawaa Al-Alam (Healing of Diseases and Remedy of Pains) Part: 1 medical science*, ed. Sayeda Hamed and Maha Mazloom, I, Our Scientific Heritage 5 (National Library Press, 2016); Haji Pasha Kedr Bin Ali Al-Aydini, *Shefaa Al-Asqam Wa Dawaa Al-Alam (Healing of Diseases and Remedy of Pains) Part: 2 Syrbs and Nutritiom*, ed. Faten Abdülhalîm İbrâhim, II, Our Scientific Heritage 6 (National Library Press, 2017).

[4] For modern Turkish transliterations of his Old Turkish medical texts, as well as studies on his theological works, see Zafer Önler, 'Celalüddin Hızır (Hacı Paşa) Müntahab-ı Şifa (İnceleme-Metin-Dizinler)' (Doctoral Dissertation, Fırat Üniversitesi, 1981); Zikri Turan, 'Hacı Paşa (Celaleddin Hızır) Teshil. Dil Özellikleri Metin (1.Cilt)' (Doctoral Dissertation, İnönü Üniversitesi, 1992); Ahmet Babur, 'Hacı Paşa ve Mecma'u'l-Envâr Fi Cemî'i'l-Esrâr Adlı Tefsirindeki Metodu' (Master's Thesis, Necmettin Erbakan Üniversitesi, 2016); Ahmed Mahmoud Zakaria Tawfik, 'Hacı Paşa El-Konevi'nin Mecma'u'l-Envâr Fî Cemî'i'l-Esrâr Adlı Tefsirinin Birinci Cildinin Tahkiki ve Incelenmesi' (Doctoral Dissertation, Necmettin Erbakan Üniversitesi, 2020); Ahmed Othman Ahmed, 'Hacı Paşa El-Aydınî'nin Şerhu Tavâli'ü'l-Envâr Adlı Eserinin İlâhiyyât Kısmının Tahkik ve Değerlendirmesi' (Master's Thesis, Dokuz Eylül Üniversitesi, 2021); Fatma Çiftçi, 'Hacı Paşa ve Haşiye Ala Levamii'l-Esrar Fi Şerh-i Metalii'l-Envar Adlı Eseri Çerçevesinde Mantık Anlayışı' (Master's Thesis, Akdeniz Üniversitesi, 2022).

II. A Brief History of Scabies

Caused by the acarus *Sarcoptes scabiei*, scabies affects both humans and a range of wild and domestic animals. The clinical manifestation of the disease is marked by a pruritic papular rash with whitish, linear or slightly curved burrows, each typically ending in a small vesicle, pustule or scale.[5] Although the precise moment of its identification as a distinct disease entity remains uncertain, scabies has been recognized since antiquity. Several scholars proposed that the Hebrew term "*Zaraath*" used for scaling skin in the Old Testament might have encompassed symptoms of both scabies and leprosy, as the ancient Greeks interpreted this word as "*Lepra*", a term that later evolved into the modern English word "leprosy".[6] Reuben Friedman, one of the historians of dermatology, asserts that although the disease lacked a specific designation in antiquity, the ancients were nevertheless well-acquainted with the condition and referred to it as "*psora*", a term that broadly encompassed various types of skin eruptions.[7] Animal mange had been mentioned by numerous ancient authors, including Cato the Elder (d. 149 BCE), Ovid (d. 17 CE), Pliny the Elder (d. 79 CE), Martial (d. 104 CE) and Juvenal (d. 140 CE), among others, yet the earliest known description of pustules and the term "scabies" (derived from the Latin word "*scabere*", literally meaning "to scratch or to scrape") is attributed to the Roman physician Aulus Cornelius Celsus (d. 50 CE).[8] According to Celsus, scabies is characterized by a hardening of the skin, accompanied by pustules, persistent itching and ulceration. He notes that the disease may spread rapidly in certain cases, and the affliction can disappear entirely in some individuals, although it may recur at a particular time of year in others.[9] Errol Craig has pointed out that although the ancients could not understand the nature of scabies or "the itch" completely, they nonetheless succeeded in applying an undeniably effective treatment, sulphur-based preparations.[10]

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[5] Cord Sunderkötter et al., 'Scabies: Epidemiology, Diagnosis, and Treatment', *Deutsches Ärzteblatt International* 118, no. 41 (2021): 696–98, https://doi.org/10.3238/arztebl.m2021.0296; Craig, *The Itch*, 57.

[6] R. Hoeppli, 'The Knowledge of Parasites and Parasitic Infections from Ancient Times to the 17th Century', *Experimental Parasitology* 5, no. 4 (1956): 413; Craig, *The Itch*, 93.

[7] Reuben Friedman, *Scabies: Civil and Military, Its Prevalence, Prevention and Treatment* (Proben Press, 1941), 192.

[8] R. A. Roncalli, 'The History of Scabies in Veterinary and Human Medicine from Biblical to Modern Times', *Veterinary Parasitology* 25, no. 2 (1987): 193–94, https://doi.org/10.1016/0304-4017(87)90104-X.

[9] Aulus Cornelius Celsus, *De Medicina. With an English Translation by WG Spencer*, Reprinted 1961, trans. Walter George Spencer, II (William Heinemann LTD, Harvard University Press, 1938), 167; Craig, *The Itch*, 94.

[10] Craig notes that sulphur remained in use nearly 2000 years and are still considered a viable alternative during pregnancy and breastfeeding; according to him, it still works when applied, see Craig, *The Itch*, 94.

One intriguing aspect in the history of scabies is the mention of the itch mite. Modern scholarship suggests that the mite may have been referred to by certain ancient and medieval authors. For example, Aristotle (d. 322 BCE), one of the most eminent philosophers of antiquity, is credited with one of the earliest possible discovering of the mite in his *History of Animals* (*De historia animalum*), identifying it as a "species of louse" that is able to "jump up" when one pricks the afflicted animal, which bears visible skin eruptions "*unaccompanied by any discharge of purulent*" substances.[11] Aristotle's description made some scholars to interpret the creature as the itch mite and the condition as an early reference to scabies.[12] However, that description of the so-called itch mite raises the question of whether the observed creature was another small insect rather than the mite itself as it is too small to be observed with the naked eye, and referred to as a type of louse, and said to "jump" when the skin is pricked.

A possible account of the mite is also attributed to the Persian physician Aḥmad b. Muḥammad al-Ṭabarī[13] (fl. the 10th century) and the Andalusian physician Ibn Zuhr (d. 1162), who described it as follows:

> ويحدث في الأبدان في ظاهرها شيء يعرفه الناس بالصؤاب وهو يكون في الجلد ويخرج إذا قشر الجلد من مواضع منه حيوان صغير جدا يكاد أن يفوت الحس.
>
> "*And something occurs on the bodies, on their surface, known among the people as ṣuʾāb which is embedded in the skin, and when the skin is scraped off, a very small animal, which is almost imperceptible, comes out from certain spots*".[14]

However, examining Ibn Zuhr's description, Gabriel Colin cautions readers not to confuse the creature mentioned by the author with the itch mite, which is invisible to the naked eye. According to him, the term "*ṣuʾāb*" (صؤاب), which traditionally referred to "lice nits", was used here to denote a clearly visible red acarus, commonly known as the flour mite (*Acarus siro* L.).[15] Colin might have interpreted Ibn Zuhr's description of the mite as "almost imperceptible" to

[11] Aristotle, *Historia Animalium*, ed. J. A. Smith and W. D. Ross, IV, trans. D'Arcy Wentworth Thompson, The Works of Aristotle: Translated into English (n.d.), bk. V, 30, 557a, accessed 9 July 2025, http://archive.org/details/thompson-1910-aristotle-animals.

[12] Roncalli, 'The History of Scabies', 193; Craig, *The Itch*, 93.

[13] Hoeppli, 'The Knowledge of Parasites', 407–8; Craig, *The Itch*, 95–96.

[14] Although Colin had already translated this passage into French, the following translation belongs to us, based on a paraphrasing of the original Arabic text as presented in his work, see Gabriel Colin, *Avenzoar: Sa Vie & Ses Oeuvres* (E. Leroux, 1911), 134.

[15] Colin, *Avenzoar*, 134.

mean that Ibn Zuhr claimed to have hardly observed it with the naked eye. In comparing the descriptions of Aristotle and Ibn Zuhr, Craig highlights instances where both authors may have occasionally confused lice with mites. In addition, based on Ibn Zuhr's description of the animalcule, Craig thinks that it was more likely an acarus rather than a louse.[16] However, considering Aristotle's description in which the creature "jumps," it was likely a flea rather than a louse, as lice are incapable of jumping.

In addition to abovementioned authors, although many modern scholars claim that the earliest clear descriptions of the itch mite were provided by medieval and Renaissance authors, including prominent figures such as Saint Hildegarde von Hebra (d. 1179), Guy de Chauliac (d. 1368), Alexander Benedictus (d. 1512), Ambroise Paré (d. 1590) and Joseph Justus Scaliger (d. 1609),[17] no one was able to accurately describe the itch mite with supporting evidence, except for the Dresden physician August Hauptmann (d. 1674), Michael Ettmüller (d. 1682), and Giovanni Cosimo Bonomo (d. 1696) until the early modern era. For that reason, the evidence is insufficient to assert that ancient and medieval authors actually observed and accurately described the itch mite. On the other hand, August Hauptmann (d. 1674) is recognized as the first to produce a sketch of the itch mite, using a rudimentary microscope in 1657.[18] Like Hauptmann, Michael Ettmüller (d. 1682) also published a drawing of a mite, while Giovanni Cosimo Bonomo (d. 1696), using again a rudimentary microscope, demonstrated the existence of both male and female mites and observed the female during laying her eggs.[19] The Swedish naturalist Carl Linnaeus (d. 1778), distinguished *Acarus exulcerans* as the agent affecting animals, identified *Acarus humanus subcutaneous* as the itch mite responsible for human scabies, and until the end of the 19th century, numerous scientists produced foundational studies on the anatomy and physiology of mites, as well as on the classification and differentiation of various mite species.[20]

III. Historical Approaching to the Emergence and Treatment of Scabies

The premodern understanding of health and disease differed significantly from the principles of modern medicine. For this reason, it may be helpful to clarify what was meant by "health" and "illness" in that context in order to better understand Ḥādjī Pasha's approach to scabies and itching. In the eyes of

[16] Craig, *The Itch*, 96.
[17] Hoeppli, 'The Knowledge of Parasites', 410; Roncalli, 'The History of Scabies', 195; Craig, *The Itch*, 96–97.
[18] Hoeppli, 'The Knowledge of Parasites', 411; Craig, *The Itch*, 96–98.
[19] Roncalli, 'The History of Scabies', 195; Craig, *The Itch*, 100–102.
[20] Roncalli, 'The History of Scabies', 196–97; Craig, *The Itch*, 113–14.

premodern physicians, human health was primarily believed to depend on the balance of bodily fluids known as "*aḫlāṭ*" (meaning *mixtures*)—namely blood, phlegm, yellow bile, and black bile. This concept of balanced and mixed fluids also shaped the understanding of illness, which was thought to arise when these fluids became imbalanced. In line with this theoretical framework, each illness is characterized by specific inherent qualities; for example, one may be hot and dry in nature, while another may be cold and dry, paralleling the four elemental qualities (hot, cold, moist, and dry) found in ancient natural philosophy.[21] The idea that diseases are caused by microorganisms such as viruses, bacteria, parasites, or other pathogens, as in the case of cholera and tuberculosis, did not emerge until the late nineteenth century.[22] Therefore, premodern physicians, working within this earlier conceptual framework, typically approached illness through what is now referred to as humoral pathology.

In fact, humoral pathology was far more complex than it seems. In some cases, this approach failed to provide physicians with satisfactory explanations for certain theoretical aspects of disease.[23] For instance, it struggled to account for epidemics such as plague. This raised a fundamental question: if illness results from an imbalance of bodily fluids, why do the same diseases occur simultaneously within a given region, affecting large numbers of people at once? And why do some individuals fall ill after meeting others who are already sick? Physicians consulted several alternative explanations such as the famous *miasma, venenum* and *contagion* notions to explain the problematics.[24] According to miasma and venenum notions, patients were supposedly affected by a corrupted, decayed, and poisonous substance present in the air; once this substance entered the body, it disrupted the humours and thereby caused disease.[25] Another explanatory framework was the notion of contagion, as proposed by the Girolamo Fracastoro (1478–1553), which held that a person could became ill via direct contact, indirect contact or a distance with a diseased individual or thing which had living minute particles (*seminaria*) which carried putrid matter, thereby introducing the harmful substance into their own body and producing the same outcome.[26] These approaches were primarily employed to explain epidemic diseases. However, it is evident that Ḥādjī Pasha relied more heavily on humoral

[21] For this notion of health and illness, see Manfred Ullmann, *Islamic Medicine* (Edinburg University Press, 1978), 55–60, 72–85.

[22] Elif Gültekin, '19. Yüzyılda Osmanlılarda Kolera Tedavileri' (Doctoral Dissertation, Istanbul Üniversitesi, 2016), 30–32.

[23] Frederick W. Gibbs, *Poison, Medicine, and Disease in Late Medieval and Early Modern Europe* (Routledge, 2019), 116.

[24] For further discussion on the subject, see Gibbs, *Poison, Medicine, and Disease*, 116–41.

[25] Gibbs, *Poison, Medicine, and Disease*, 118–22; Gültekin, 'Kolera Tedavileri', 25–27.

[26] Richard John Palmer, *The Control of Plague in Venice and Northern Italy 1348-1600* (University of Kent, 1978), 91–93; Gibbs, *Poison, Medicine, and Disease*, 192; Gültekin, 'Kolera Tedavileri', 27–28.

pathology than on these theories when explaining conditions such as scabies and itching. Followingly, we only focus here on humoral theory of disease.

To better understand the humoral explanation of scabies and itching, the insights of the renowned medieval Muslim physician and philosopher Ibn Sīnā (Avicenna, d. 1037)—whom Ḥādjī Pasha frequently consulted—may serve as a useful point of reference for modern readers. Ibn Sīnā did not mention any contagious characteristics of scabies or itching, nor did he refer to any tiny creature appearing during the illness. He notes that the causes producing the matter of scabies are the same as those of itching, but stronger, and that they are likewise similar to those of the conditions he called *namla* (likely eczema), *sa'fa* (tinea), *kuwābāʾ* (impetigo), and *ḥazāz* (a term used for dandruff and lichen), in terms of their characteristics and treatments.[27] Ibn Sīnā classify scabies into two distinct types, based on the varying characteristics of the pustules that appeared during the disease. One form was identified as dry, while the other as moist.[28] He differentiated scabies from simple itch by describing that scabies was characterized by the presence of both pustules and intense pruritus, whereas in cases of mere itch, pustular eruptions are absent. According to the author, the causative matter of simple itch is thinner in consistency and less in quantity than that of scabies. On the second hand, when the body's innate force succeeds in expelling the thick and viscous matter of scabies, it manifests externally in the form of pustules on the skin, as the morbid substance is driven outward.[29] He identified two kinds of morbid matter as the sources from which scabies arises: 1) a sanguineous substance intermixed with yellow bile and approaching transformation into black bile; and 2) a matter compounded with boracic saline phlegm.[30]

It is clear from the description that both the simple itching and scabies arise from the foul humours exist in the blood. As an illustrative case, Girolamo Mercuriale (d. 1606), the distinguished Paduan professor of medicine, may be taken as an example. Mercuriale placed also the origin of scabies in the blood, which he identifies as the only bodily fluid that circulates throughout the entire body. His reasoning appears to derive from an examination of the patient's blood, evaluating both its consistency and taste.[31] In line with Ibn Sīnā's explanation, he characterizes it as impure, unusually thick, and marked by a bilious, salty or purulent quality, characteristics that, in his view, constructed the systemic nature

[27] Abū ʿAlī al-Ḥusayn Ibn Sīnā, *Al-Qānūn Fī al-Ṭibb*, III (Dar al-Kotob al-Ilmiyyah, 1999), 371; İbn-i Sina, *El-Kânûn Fi't-Tıbb Dördüncü Kitap*, trans. Esin Kahya, IV (Atatürk Kültür Merkezi Yayınları, 2017), 551.
[28] Ibn Sīnā, *Al-Qānūn*, III, 371.
[29] Ibn Sīnā, *Al-Qānūn*, III, 371.
[30] For a detailed explanation of Ibn Sīnā's treatment of itch and scabies, see Ibn Sīnā, *Al-Qānūn*, III, 371.
[31] Craig, *The Itch*, 99.

of the disease.[32] Then, what specific types of events or conditions were believed to give rise to such morbid matter, and how did premodern physicians explain their emergence within the framework of humoral pathology? A clear explanation can be found again in the writings of Ibn Sīnā, who attributed the formation of such morbid matter to dietary habits, particularly the consumption of hot spices as well as foods that are salty, sweet, bitter or pungent.[33]

Before concluding this section, the historical treatment of scabies and itching should be mentioned. The premodern physicians employed considerably various therapeutic approaches for the treatment of the said conditions, despite all approaches being situated within the same humoral framework. As was typical of humoral medicine, the primary objective was the evacuation of the causative and imbalance-inducing humours from the body, aiming at restoring humoral equilibrium with the help of employing of phlebotomy, along with the oral administration of purgatives, emetics, diuretics and diaphoretic agents.[34] Medical practitioners predominantly relied on the internal administration of remedies in the treatment of scabies. This approach prevailed with a few exceptions, such as Celsus, Bonomo and a limited number of others, who preferred baths, lixivial washes, sulfur-contained ointments for external application, often in combination with corrosive substances such as vitriols, metallic mercury, mercury salts, orpiment, lead, arsenic and various inorganic and organic ingredients.[35] Putting all these aside, in light of the brief historical accounts on the nature and treatment of scabies and itching, the question of how the 14th-century physician and scholar Ḥādjī Pasha conceptualized and described these conditions within his medical work rearose.

IV. Ḥādjī Pasha and His Discussion on Scabies and Itching

Jalāl al-Dīn Khiḍr ibn Khwāja ʿAlī ibn Murād ibn Khwāja ʿAlī ibn Ḥusām al-Dīn al-Khaṭṭāb al-Qonawī al-Falaqābādī al-Aydīnī, widely known as Ḥādjī Pasha, was born in Konya. Due to his intellectual stature in his era, he was often referred to as the "Ibn Sīnā of Anatolia" and his work was regarded as "the Canon of Ḥādjī Pasha", resembling Ibn Sīnā's Canon of Medicine. Although it is estimated that he was born around 1339, his date of birth remains unknown; and biographical sources indicated that he was active during the second half of the 14th century and the first quarter of the 15th century.[36] He studied logic, theology

[32] Craig, *The Itch*, 99.
[33] Ibn Sīnā, *Al-Qānūn*, III, 371.
[34] Friedman, *Scabies*, 192; Ibn Sīnā, *Al-Qānūn*, III, 371–75; İbn-i Sina, *El-Kânûn*, IV, 551–57; Craig, *The Itch*, 99.
[35] Celsus, *De Medicina*, II, 166–69; Friedman, *Scabies*, 192–96; Craig, *The Itch*, 106.
[36] For further information about the author and his works, see Cemil Akpınar, 'Hacı Paşa', in *TDV İslâm Ansiklopedisi*, vol. 14 (TDV Yayınları, 1996), https://islamansiklopedisi.org.tr/haci-pasa; Ekmeleddin

and medicine under several eminent scholars of the period, including Jamal al-Dīn Aqsarayī (d. 1389), Muhammad b. Mubarakshah (d. 1382), and Akmal al-Dīn al-Babartī (d. 1384), indicating his high-quality educational background. After traveling to Cairo to pursue his education, he fell ill and followingly decided to study medicine. During his lifetime, Ḥādjī Pasha compiled several works in the fields of medicine, logic, theology and philosophy, and his career was supported by a range of patrons, from the Aydīnīds to the early Ottomans.[37] Notably, he completed his comprehensive medical book "*Shifāʾ al-Asqām wa Dawāʾ al-Ālām*" in 1380 in Ayasuluk (modern-day Selçuk, İzmir), which he dedicated to the Aydīnīd ruler Fakhr al-Dīn ʿĪsā Bey b. Mehmed Bey (r. 1365–1390). With over 75 known manuscript copies and translations into the Old Turkish, the work holds a significant place in both Ottoman and Islamic medical literature.[38]

The work is structured into four principal tractates, called "*maqāla*", encompassing distinct topics that span the theoretical and practical branches of medicine, as well as a diverse range of ailments and remedies. Among the ailments discussed in the fourth tractate are scabies (*jarab*) and general itching (*ḥikka*). Similar to Ibn Sīnā, Ḥādjī Pasha's account of scabies and itching is firmly grounded in the framework of humoral theory. Since he makes no reference to any contagious properties of scabies, the discussion here does not focus on the notion of contagion.

A close examination of Ḥādjī Pasha's discussion of scabies and itching indicates a significant degree of resemblance with Ibn Sīnā's *Canon of Medicine*. For example, he distinguishes scabies from general pruritus, which is supposedly caused by sharp and burning vapours within the body. He notes that thin vapours cause quick-healing itching while the thick causes prolonged itching. The hallmark clinical signs of scabies, as described in the text by the author, are small red pustules accompanied by intense itching. Similarly, he attributes the cause of it to the corruption of digestion and the mixed humours within the corrupted blood; burnt black bile, yellow bile and salty phlegm. The question of blood's corruption is primarily attributed to the consumption of certain foods, including pepper, ginger, aged cheese, salted fish and dried meat. Once the humours within

İhsanoğlu, ed., *Osmanlı Tıbbi Bilimler Literatürü Tarihi*, with Ekmeleddin İhsanoğlu et al., I (İslam Tarih, Sanat ve Kültür Araştırma Merkezi, 2008), 18.

[37] He is also known to have dedicated his Quranic exegesis *Macmaʿu'l-Anwār fī Jamīʿi'l-Asrār* to the Ottoman Sultan Murad II (r. 1421-1444, 1446-1451), see Akpınar, 'Hacı Paşa'.

[38] Zafer Önler's doctoral dissertation offers a critical edition and modern Latinization of the Old Turkish version of *Shifāʾ al-Asqām wa Dawāʾ al-Ālām*; see Önler, 'Müntahab-ı Şifa'; Zafer Önler, *Celâlüddin Hızır (Hacı Paşa) Müntahab-ı Şifâ I Giriş-Metin*, I (Türk Dil Kurumu Yayınları, 1990); Zafer Önler, *Celâlüddin Hızır (Hacı Paşa) Müntahab-ı Şifâ II Sözlük*, II (Türk Dil Kurumu Yayınları, 1990). For more detailed information about the author and his work, see İhsanoğlu, *Osmanlı Tıbbi Bilimler*, I, 18–33.

the blood become corrupted, the body's nature distributes them into the fine vessels, from which they are absorbed by the weakened skin, ultimately leading to the appearance of scabies. The idea of scabies forming process is quite clear from his explanations. According to that, the corrupted humours dispelled by the body's nature and absorbed by the skin, transform into pustules on the skin's surface, and the characteristic of it defined by the quality and quantity of the causative substance.

It is important to note that the Old Turkish translation diverges from the original Arabic text in several parts. An example is visible in its description of the nature and causes of scabies. The Old Turkish text omits any reference to the pustular characteristics of the disease, which are explicitly detailed in the original Arabic text, where scabies are described as small red pustules accompanied by intense itching. Another example is the mention of tiny creature what the author preferred to call "nits". One might expect some reference to a tiny creature as seen in the writings of other premodern authors. Interestingly, whereas the Old Turkish version of Ḥādjī Pasha's work omits any mention of such a creature in the chapter on scabies, this detail is explicitly present in the original Arabic text. The Arabic text notes that, because of the corrupted humours which cause scabies and itching, *sībān* (Arabic word traditionally referred to "nits") may be generated during the illness. That is a small but important detail entirely omitted from the Old Turkish text. Like the other authors mentioned earlier, Ḥādjī Pasha, in the Arabic version of his text, refers to the existence of tiny creatures, which he calls nits. As previously noted, it is very difficult to determine whether Ḥādjī Pasha and other premodern physicians were in fact referring to nits, lice, fleas, or, though far less likely, the itch mite itself. Nevertheless, it is important to emphasize that these authors consistently mentioned scabies, itching, and small creatures under various names, indicating that they perceived a relationship between these phenomena.

Examining the author's approach, it seems that scabies is mainly divided into two types: dry and moist. The moist type of scabies is said to produce pus and discharge, and in some cases, even black blood or tiny organisms resembling nits. The author also discusses a type of scabies commonly observed among the elderly. According to him, owing to poor digestion and weakened bodily faculties which are unable to repel the morbid substances adequately, the aging body becomes incapable of dissolving the vapours that accumulate beneath the skin. He attributes this condition to both the weakness of the skin in old age and the excessive production of salty phlegm, which is one of the causative humours mentioned above.

The treatment methods described in the text are varied. Bloodletting appeared as the initial step, followed by the administration of purgatives. Both

practices which widely employed by premodern physicians in the treatment of various ailments serve the same fundamental purpose: the evacuation of morbid humours from the body, which are supposed to be the causative agents of the disease. However, bloodletting and evacuation are not the only therapeutic methods employed by the author. Topical treatments, such as the application of ointments and oils which contains highly corrosive and toxic substances like arsenic, mercury, lead oxide, orpiment and sulphur, are also prescribed, along with regulations of diet, bathing and sexual intercourse. For example, he asserts that one of his topical treatments functions by opening the pores of the skin and dissolving the corrupted humours and vapours. Accordingly, the opening of the skin's pores is considered essential for facilitating the expulsion of these humours and vapours, which are believed to be trapped beneath or within the skin. Even visiting the bathhouses must have served the same purpose. In premodern medical thought, the evaporation of perspiration from the skin and the evaporative cooling from exhaled moisture were likely understood as natural processes of bodily evacuation. Thereby, the opening of the pores allows for the release of trapped substances beneath the skin. This idea also underpinned the frequent recommendation by physicians to visit the bathhouse, where bathing was regarded as a therapeutic method to facilitate the expulsion of excess humours and vapours through perspiration and evaporative cooling.[39] The author even recommends wearing soft, clean linen garments after bathing, viewing it as part of bodily cleanliness and therapeutic care.

Another part of treatment offered by the author is the avoidance of sexual intercourse, as it is thought to stimulate the movement of humours toward the body's surface and generate a violent hot vapor that rises to the skin. This, in turn, is thought to cause local corruption and result in an unpleasant bodily odour. He also emphasizes the importance of the post-coital ablution (*ghusl*) following intercourse. In addition to these measures, another key aspect of treatment involves correcting the patient's diet, as the disease is believed to result from the consumption of foods and drinks that disrupt the body's humoral balance. He recommends the consumption of simple and pure foods, while advising against cold and moist legumes, as well as salty, sweet, acrid and spicy items. The suggested dietary regimen includes a variety of dishes, ranging from barley porridge and fruit-based stews to the intake of decoctions and oils like sesame and almond oil. Meat consumption, however, should generally be limited, as it is most likely difficult to digest. A further explanation for this restriction may be that the author did not want the body to waste its energy on digestion rather than on combating the illness. In short, when examined, it seems that Ḥādjī Pasha's treatment of scabies is centred on not only the bloodletting and administrating

[39] Ullmann, *Islamic Medicine*, 35, 100.

purgatives but also regulating diet, sexual intercourse, bathing and bodily hygiene.

V. Conclusion

In this chapter, we examined Ḥādjī Pasha's discussion of scabies and itching in the fourth chapter of his book *Shifāʾ al-Asqām wa Dawāʾ al-Ālām*. The study showed that a prominent intellectual and physician of late fourteenth and early fifteenth century in Anatolia, Ḥādjī Pasha, shares views consistent with Ibn Sīnā regarding the cause, nature, and treatment of the disease. Ḥādjī Pasha makes no reference to any contagious properties of scabies; most probably for this reason, his account of scabies and itching is based on the framework of humoral theory. It should be borne in mind that, as historians, we cannot assert with certainty that the condition discussed by Ḥādjī Pasha is certainly identical to what modern medicine defines as scabies. As he discusses general itching and scabies together and identifies several types of conditions what he called "scabies" manifesting in different clinical appearances, it seems likely that the term "scabies" and "itching" in his account referred broadly to various non-pruritic and pruritic dermatological diseases, including scabies in the modern sense. Therefore, in reading a premodern medical text, one should be careful that the historical understanding of scabies and itching may differ depending on the conceptual and linguistic frameworks in which they were expressed.

In his therapeutic approach, diet, sexual activity, bathing and bodily hygiene played a central role. His prescriptions to be applied externally also include toxic and corrosive substances such as arsenic, mercury, lead oxide, orpiment and sulphur. On the other hand, it has been observed that some differences exist between the Old Turkish and Arabic versions of the text. Especially, whereas the Old Turkish version of Ḥādjī Pasha's work omits any mention of such a tiny creature appeared during the illness in the chapter on scabies, this detail is explicitly present in the original Arabic text where he refers to it as "nits". Finally, although Ḥādjī Pasha's work does not provide direct evidence of scabies cases in early Anatolia under Turkic-Islamic rule, it nonetheless serves as an example of the premodern understanding of the disease, elucidating prevailing conceptions of its causes, clinical manifestations, and treatments as described by physicians of the time.

The Arabic Text and Translation[1]

الجرب والحكة

الجرب بثور صغار يبتدئ حمرًا ومعها حكة شديدة. وربما تقيّحت وربما لم تتقيّح. وأكثر ما يعرض الجرب في اليدين وربما عرض في سائر البدن. وسبب حدوثه فساد الهضم والدم ومخالطة السوداء والصفراء المحترقة والبلغم المالح بالدم. وعلى حسب اختلاط تلك الأخلاط بالدم كيفية أحوالها في الحدة والسكون والغلظ والرقة والكثرة والقلة تكون أنواع الجرب واختلاف أعراضها من الوجع والحكة وغير ذلك. وسبب فساد الدم واحتراقه استعمال التوابل الحارة والكواميج والملحات والحلاوات والشراب والأدوية الحادة مثل الفلفل والزنجبيل والأغذية الحريفة والسمك المملح والجبن العتيق والقديد والنمكسود والجوز فيفسد الدم ويتولد منه تلك الأخلاط غير الطبيعية فتدفعها [الطبيعة] في العروق الرقاق ويقبلها الجلد لضعفه فيحدث الجرب. وأنواع الجرب كثيرة، فمنها اليابسة التي لا تمد ومنها الرطبة التي يسيل منها مِدّة وصديد. وربما سال منها دم أسود وربما يتولد فيها حيوان مثل الصيبان. وهي مختلفة الصورة فالتي يغلب عليها الصفرة الحادة وتكون الرؤوس حمراء، شديدة الوجع والحكة. والتي يغلب عليها السواد تكون سود الأصول، قليلة الوجع [والحكة]، طويلة اللبث، بطيئة البرء. والبلغمية تكون بيضاء منبسطة مترفقة بالمدة. والجرب اليابس يدلّ على غلظ المادة ويبوستها وبالضد. وقد تحدث الحكة في الجلد من غير جرب وسببها بخارات حريفة حادة لذاعة واختلاط حادة قليلة المقدار إما رقيقة لطيفة فيحدث منها الحكة سريعة البرء[2] أو غليظة تحدث منها الحكة المتطاولة وهي تعرض من أكل النمكسود والسمك العفن المملح والجبن، والأشياء الحريفة والحلوة والمالحة والتوابل الحارة.

[1] Preparing this Arabic text and the translation, we based on the manuscript housed in the collection of Beyazıt (No. B4208). See, Hacı Paşa, Celâleddin Hızır b. Ali el-Konevî el-Aydınî. *Şifâ'ü'l-Eskâm ve Devâ'ü'l-Âlâm*. 1192. https://portal.yek.gov.tr/works/detail/568111.

[2] This word is omitted in Beyazıt No. B4208, and for clarity, we have referenced it from the Feyzullah Efendi collection (no. 1321), v. 493a. See, Hacı Paşa, Celâleddin Hızır b. Ali el-Konevî el-Aydınî. *Şifâ'ü'l-Eskâm ve Devâ'ü'l-Âlâm*. https://portal.yek.gov.tr/works/detail/159539.

Scabies and Itching

Scabies is small pustules, begins red with severe itch. They may fester, or they may not. Scabies most often appears on the hands, and it may appear on the rest of the body as well. The cause of its occurrence is corruption of the digestion, the blood and blood's amalgamation with burnt black bile, yellow bile and salty phlegm. The types of scabies and the differences in their symptoms such as pain, itching and the others, emerge according to the mixing of those humours with the blood, in terms of their states of sharpness and stillness, thickness or thinness, abundance or scarcity. The cause of the blood's corruption and its burning is the use of hot spices, Arabic bread *(kawāmīj)*, salty and sweet substances, beverages and sharp remedies such as pepper, ginger, and poignant foods, salted fish, aged cheese, jerky and dried meat, and walnut. Thus, the blood corrupts, and those unnatural humours are generated from that. The nature then pushes them into the fine vessels, and the skin receives them due to its weakness; then, scabies occurs. The types of scabies are many. Among them are the dry types from which the pus does not ooze and the moist types, from that discharge and pus flow. And [sometimes] black blood may flow, and animals like nits may even generated in them. And they are of different forms: the type dominated by sharp yellow bile has red heads; the pain and itching are intense. The type dominated by black bile has dark roots, little pain and itching; persists for a long time and heals slowly. The phlegmatic type is white, spread out, and accompanied by pus. Dry scabies indicates the thickness and dryness of the matter, and vice versa. Itching may also occur in the skin without scabies, and its cause is stinging, sharp and acrid vapours, and a mixture of sharp substances in small amounts, whether thin and tender from which emerges quick-healing itching, or thick from which emerges prolonged itching. It results from eating jerky and dried meats, salted spoiled fish, cheese, acrid, sweet and salty things and hot spices.

العلاج المشترك: الابتداء بالفصد واستفراغ المادة بطبيخ الفاكهة أو طبيخ الأفتيمون أو سفوف السوداء بماء الجبن أو ماء الجبن بالأفتيمون بالسكر أو باللبن كالافتيمون والسكر و[ماء] الشاهترج المنقوع فيه الهليلج الأصفر والأسود والكابلي من كل واحد أربعة دراهم وشراب الشاهترج المدبر مع الراوند وحجر ارمني وأخذ الصبر الأصفر المنزوع من كل واحد مثقال بماء الهندبا غاية في علاجهم. وفي كل يوم يستعمل ماء الشعير بالسكر أو بماء الشاهترج بالسكنجبين العنصلي للبلغمي جيد. والسفوف المبدل مع ماء للجبن جيد. وهو أن يأخذ طباشير ولحم اميربارس وورد وبزر قثاء وخيار وقرع حلو مقشورة وبزر بقله وخشخاش أبيض وصندل أبيض أو الشاهترج بالسكنجبين أو شراب الليمون أو شراب شاهترج أو نقوع حلو وحامض. وينبغي أن يعدل مزاج الكبد الحار، يأخذ نقيع الاميربارس وأجاص مع الورد الطري والنيلوفر وربما وضع فيه بذر رجلة ويحلى بسكر ويستعمل. وينفع أن يؤخذ ماء الشاهترج الرطب وماء الهندبا بالسكر وربما تقع فيه مثل الهليلج الهندي ولسان الثور. ومن المشروبات القوية جدا أن يشرب ثلاثة أيام كل يوم مائتي وثلاثون درهما شيرج مع نصفه سكنجبين. إلا أنّه يضعف المعدة ويغذي.

الأغذية: يكون من الأغذية الساذجة التافهة من البقول الباردة والرطبة مثل كشك الشعير والقرعية والرمانية والحضرمية والأجاصية والهندبائية والرجلية والاسفاناخية باللحم الصغير والفراريج اللطافة ولحم الجداء وتقليل اللحوم إن أمكن؛ ويتناول من الفواكه المرة مثل الرمان والتفاح الحامض والسفرجل والبطيخ الهندي والخيار والقثاء ونحو ذلك، من أكل الحس والهندبا بالخل والسكر ويتجنب كل مالح وحريف وحلو وحاد. وتنفعهم الأحساء الدسمة والاسفيدياجات الساذجة والأطعمة الحامضة والإكثار من الدسم ولاسيما من دهن السمسم واللوز والسمن ونحوهما مما ليس فيه كيفية حادة وكثرة الشرب من الماء العذب البارد ومما جرب أن يعجن خبزهم بماء شاهترج ويأكلون بدهن اللوز وقلب البندق. والعلاج لهم أفضل من الحمام والتنظيف ودوام الغسل بدقيق الترمس والملح والليمون والأدهان عقيبه بدهن بنفسج وثمر حناء والتدلك فيه بدهن الورد والخل مع قليل من ماء الكرفس ويسير من البورق وبعد الخروج من الحمام يلبس الثياب الناعمة من الكتان النظيف.

The common treatment: initially bloodletting and the evacuation of matter with the decoction of fruits, or decoction of lesser dodder, or black powder with whey, or whey with lesser dodder, sugar or with milk like lesser dodder; and sugar, water of fumitory in which yellow, black and chebulic myrobalans, four *dirhams* of each, have been soaked, and the prepared syrup of fumitory mixed with rhubarb, Armenian stone, and taking the extracted yellow aloe, one *mithqāl* of each, with endive water is quite effective in their treatment. And every day, one uses barley water mixed with sugar or with fumitory water with squill oxymel is good for the phlegmatic. The modified powder with whey is good as well. And it is that one takes chalk, flesh of barbery, rose, seeds of cucumber, melon, and peeled sweet pumpkin, seeds of legume, white poppy, white sandalwood, or fumitory with oxymel, or lemon syrup, or fumitory syrup, or a sweet-and-sour infusion. And the hot temperament of the liver should be moderated; one takes an infusion of barbery and plums with fresh rose and water lily, and sometimes purslane seeds are added to it, and it is sweetened with sugar and used. And it is beneficial to take fresh fumitory water and endive water with sugar, and sometimes Indian myrobalan and borage are added to it. And among the very potent beverages is to drink for three days, each day two hundred and thirty *dirhams* of sesame oil with half of it oxymel. However, it weakens the stomach and nourishes.

Nutriments: Among the simple and bland foods are the cold and moist legumes, such as *kishks* of barley, pumpkin, pomegranate, unripe grapes, plum, endive, purslane, spinach with young meat, tender broiler, and kid meat. Meat consumption should be reduced as much as possible. One consumes from bitter fruits such as pomegranate, sour apples, quince, Indian watermelon, cucumber, Armenian cucumber, and the like. One consumes lettuce and endive with vinegar and sugar, and avoids everything salty, spicy, sweet, and sharp. Fatty broths, simple *asfidyājāt*, and sour dishes, and increasing the fat intake, especially from sesame oil, almond oil, butter and the like that do not have a sharp quality and drinking plenty of fresh cold water are beneficial for them. And from what has been tried is that their bread is kneaded with water of fumitory and they eat it with almond oil and hazelnut kernel The treatment for them is better than bathing and cleaning, and continual washing with lupine flour, salt, and lemon, and ointments afterward with violet oil and henna fruit and massaging with rose oil and vinegar with a little celery water and a little borax. After leaving the bath, one wears soft linen clothes for cleanliness.

وينبغي أن يمتنع عن الجماع بالمرة لأنّ الجماع يّحرك المواد إلى الخارج ويثير بخارا حارا عفنا يأتي ناحية سطح الجلد فيعفن ما هناك وينتن رائحة البدن. ولذلك أمرنا بأن لا يؤخر غسل الجنابة ويكثر الدلك فيه والاستفراغ البالغ والنقاء التام من المواد المحترقة. ويلطخ بالكبريت والكندس والزئبق المقتول والأشق والزنجار والنشادر، أخذ هذه مع نصف مرتك واسفيداج ومثله ملح اندراني ومثل الجميع حب رمان ومحمص ويضاف إليه دهن ورد ودهن بنفسج وماء ورد وكزبرة خضراء وخل وربما احتيج إلى الكافور ومن الأدوية النافعة الزرنيخ وورق الدفلى المدقوق والميعة السائلة وخل الخمر مفردة ومجموعة ومعجونة بالشيرج والقطران ينفع الجرب لطوخا. وينفع الاغتسال بماء البحر لأنه يفتح المسام ويحلل الأخلاط والبخارات الفاسدة أو بماء الحمامات والطلا بدقيق الترمس ودقيق الباقلي ولب بزر البطيخ، تدق الأدوية ناعما وتبل بماء ورد وخل خمر ويُطلى به البدن ويدلك بلحم البطيخ وينطل بالماء الفاتر الذي قد طبخ فيه قشر الكرم والسلق والمحلبة والنخالة وبزر الخبازي. وينفع من الجرب أن يضمد بالنخالة مع الخل الثقيف حاداً.

وإن كان الجرب يابسا يُطلى البدن كل يوم بعد الخروج من الحمام بدهن البنفسج ودهن القرع ودهن اللوز الحلو. وإن كان حكة من غير جرب يؤخذ بزر الخشخاش ويدق ناعما كالمرهم ويحل في الخل ويُطلى به في الحمام فإنه نافع جدا. وقد تحدث الحكة للمشايخ لضعف جلودهم وكثرة تولد البلغم المالح فيهم بسبب سوء الهضم وضعف القوة عن تحليل البخارات المختفية تحت الجلد. خاصة إن أكثروا من الأغذية التي تولد كيموساً حريفا ردئا ويعسر برؤها فيهم وتدبير إصلاح الغذاء ومداومة الحمام والتمريخ فيه بدهن الورد والخل. وينبغي لصاحب الحكة أن لا يدهن الحكة ويصبر عليه لئلا تنجذب المواد الرديئة إلى الجلد بسبب الحك.

And it is necessary to completely avoid from sexual intercourse, as intercourse moves substances outward and generates a vehement hot vapour that comes toward the surface of the skin, causing decay there and a foul body odour. Therefore, we are commanded not to delay the post-coital ablution (*ghusl al-janabah*) after intercourse and to increase massage in that, and thorough vomiting and complete purification from the burnt substances.

[The body] is then smeared with sulphur, *kundus*, killed mercury, ammoniacum, verdigris, sale ammoniac; taking these with half a part of litharge, white lead, and saltpetre equally, like them all, pomegranate pill and roasted; and rose oil, violet oil, rose water, green coriander and vinegar are added to this; and camphor may also be needed. Among the beneficial medicines are arsenic, crushed oleander leaves, liquid storax, simple wine vinegar, and kneaded with sesame oil and tar. a paste mixed with sesame oil and tar; It benefits scabies by anointing. Bathing in sea water is also beneficial, as it opens the pores and dissolves putrefying humours and vapours, or bathing in spring waters and anointing with flour of lupine, flour of legume, and the pith of watermelon seeds: these remedies are finely ground, mixed with rose water and wine vinegar, then the body will be anointed with it and then will be massaged with flesh of watermelon and bathed with lukewarm water, in which grapevine [or cabbage?] peels, chard leaves, mahlab, bran and mallow seeds had been boiled. It is beneficial for scabies to bandage a poultice of bran mixed with strong vinegar sharply.

And if scabies is dry, the body shall be anointed each day after coming out of the bathhouse, with violet oil, pumpkin oil and sweet almond oil. And if it is itching without scabies, then poppy seeds are taken and ground fine like an ointment, and [the patient] shall be anointed with it in the bathhouse; indeed, it is very beneficial. Oft does itching befall the elders, owing to the weakness of their skins and the abundance of generated saline phlegm within them, because of poor digestion and the weakness of the faculties to dissolve the vapours hidden beneath the skin. Especially if they increase consuming the foods which produce an acrid, foul chyme, and their healing is difficult for them. The management is to regulate the diet, continue bathing, and anoint with rose oil and vinegar. And the person suffering from itching should not anoint the itch but endure it so that the bad substances are not drawn to the skin because of scratching.

The Old-Turkish Text and Translation[3]

اتوز سكزينجي باب

ايوزك ياشنده وقروسنده وسببنده وعلاجنده در

اُيوز كجيك قان فاسد اولوب كُينمكدن وطوزلو بلغمدن وسودادن قان والور. كيونمك اِسّي نسنلر وطتلو نسنلر وطزلو تيز نسنلر وسودا آرترر نسنلر يمكدن والور. سودادن والان ايوز قرو اولور وكيج كدر. علاج قان المق اندنصكره مطبوخ فاكهة ومطبوخ افتمون وافتيمونله ماء الجبن وشاه ترج صوينكه اجنده دردر درهم هليلجلردن قاتلمش والان اچمكدر وهركون شراب ليمونله شراب شاه ترج ونقوع حامض وجواوه اچمك كرك.

اكر بلغمي اولورسه شراب سكنجبين عنصلي اچمكدر. وغدالردن قبق آشي وقرق آشي وكاسني آشي وسمزلك اوت آشي واسفناخ آشي، فراريج وقري ات واغلاق اتي ييلر. والدن كلكدجه غداي از ييلر، طزلو نسنلردن پرهيز ايده لر وتيز نسنلردن ودل بورر نسنلردن صقنلر. جرب شور والر وجرب مسلوقة شيروغن وبادام يغي وكره يغي وصايغي ايله أكشي اشلر جق ييلر، طتلو صُوُق صو ايچلر. جماعدن بالكلية صقنلر. تطلو مرطب حمامه جوق كرلر از اوتره لر . معتدل صو جق قينلر ترمس واتن طوشن قانيله طزله يه ليمون صويله يه سركيله خمير ايدب جماعده كوديه درتلر قتي اولر. بنفشه يغي يه بادام يغي ايله أُوَلر بنكله كتمزسه حب الصبر ورلر. تمام كيبرت وطوز وزنجار ونشادر واغو اغجي يپراغي واولمش ژيوه ومردسك وميعه كه صغله درلر دكلسن دوكب شيروغن يه كل ياغي سركيله قرشدرب حمامه كيرب كودهء اوشانله كه جغاندر يدقدن صكره درتلر. بر اكي ساعت طره يخود كجه درتلر ارتيدك طراندن صكره حمامه كرلر جغانله يويلر شفاء بولا.

بر طلا كه ايوزي وكجيكي تندن اردو: واتلري جرك اوتي تخم وقزل زرنيخ، زيت يغي. اول واتلري دوكلر واليلراندن صكره زيت يغيله حل ايليلر وكوديه درتلر واسي كنه قرشو طرلر درليلر يخود اسي حمامه كرلر تا كه درليلو وكوديه درتلر واسي كنه قرشو طرلر عظيم فائده قلا إن شاء الله.

وايوزي تندن زائل ايتكجون بردرلو دخي: نعناع وكرفس صوي وبرز كراويه وبرز صرب سركه كه سجدن دنمش والا وكل يغي، بنلري بربرنه قرشدرلر واويزه درتلر ايوزي وكجيكي كدر اللهك عنايتي برله.

[3] Preparing this Old Turkish text and the translation, we based on the manuscript housed in İnebey Library in Bursa (No. 4286/1). See, Hacı Paşa, Celâleddin Hızır b. Ali el-Konevî el-Aydınî. *Müntehab-ı Şifâ*. https://portal.yek.gov.tr/works/ detail/29165.

CHAPTER 38

On the Causes, Treatments, Moist and Dry Forms of Scabies

Scabies and itching are caused by corrupted and burnt blood, salty phlegm and black bile. Burning occurs due to eating hot substances, sweet, salty, and sharp substances, as well as substances that increase black bile. Scabies resulted from black bile is dry and takes longer to heal. The treatment is to apply bloodletting, and then consuming decoctions of fruits, decoction of lesser dodder, and lesser dodder with whey and water of fumitory, in which myrobalans, four *dirhams* of each, must be added. And, it is necessary to drink daily syrup of lemon, syrup of fumitory, sour infusions and *jawāwa* [?].

If scabies is phlegmy, then the syrup of squill oxymel should be taken. Among the nutriments, they should eat cooked pumpkin, cooked unripe grape, cooked plum, cooked endive, cooked purslane, cooked spinach, broilers, dried and kid meats; they should eat little food as much as possible; and avoid consuming salty, sharp and bitter substances. They should eat much fatty soups and fatty boiled sesame oil, almond oil and caraway oil, butter and sour foods; and drink cold fresh water; avoid sexual intercourse entirely; frequently pay visit to the bathhouse where the water is fresh and humidifying. They stay there for a short time; and bathe using moderate amounts of water. They should prepare a paste from lupin mixed with rabbit's blood, salt, or lemon juice or vinegar, and anoint it to the body during the sexual intercourse. Either violet oil or sweet almond oil should be used; if this does not cure it, aloe pills should be used. Once completed, they pound sulphur, salt, verdigris, sal ammoniac, oleander leaves, killed mercury, litharge, and storax (known as *sığla*) all together, and mix it with either sesame oil or rose oil and vinegar. After entering the bathhouse and washing the body with gypsophila, known as *çöğen*, they anoint the said ointment. It stays there an hour or two later, or they anoint it at night and leave it until the next day; then they should enter the bathhouse, wash themselves with gypsophila; they may heal.

An oil that cleanses scabies and itches from the skin: its herbs are black cumin seeds, red arsenic and olive oil. First, they gently pound the herbs and sift them; then dissolve it in olive oil and anoint it to the body. They rest on a hot day until they sweat, or they enter the hot bathhouse until they sweat; then they anoint it to the body, and rest on a hot day. It may bring great benefit, if God wills it.

Another type that removes scabies from the skin: they should mix mint juice and celery juice with a little caraway and some acrid vinegar, which has turned from wine, and rose oil, and anoint it onto the scabious. It heals scabies and itching, with the help of God.

اكر ابهل وبربهن تخمن دوكلر وسريكله ازلر وحمامة كرلر وحمامده سمزلك صوين كودسنه سره وحمامدن جقنجق كودسنه درته، ايوزى وكجيكي كيدره.

بر درلو دخي كه ايوزى بل اغرسنه ومخالف ييللره حمامده درتسلر نافع والا: اوتلري؛ كل ومرسين ييراغي ويرپوز وكمنون، هربرندن برر اوج، شرابله قينده كه تا يارسي قالنجه، اندن صكره سينمدك كرج يوز درهم، صرو زرنيخ اون بش درهم، زنجبيل وجوز وقرنفيل واق كونلك، هر برندن أوچر درهم، جرك اوتي اون درهم. بو واتلري يمشق دوكلر اليلر واول قينميش شرابيله يغره لر نه ايكن قتي نه ايكن صوق أولا. اندنصكره حمامه كيرمك، كردوكدن صكره صوي دكنمدن سونلر نافع أولا.

بر درلو ايوز جونكه ,سرك' أولا اكا ,كجي ايوزي' درلر: قبق جكردكي يجي ايدوب وكوكرت هربرندن برابر طرتلر و يمشق دوكلر واليلر وقيرق يغيله قرشدرلر اَلِن درسكندن اشغايو يه واوجغه قرشو قرد واوجغه قرشو درتنه اوج كجه وبو يغدان براز اكي ايسنه اله دخي يكي ايسن بربرينه قپيه يته اوپيه نافع أولا.

بلكلكه كجيك حادث اولور درده ايوز والمدن بنك سببي تيز بخارلردن حاصل اولور دخي تيز خلطلردن از أولا. امّا يمشق ولطيف اولورسه اول خلطدن حاصل اولن كجيك كنه تيزجك كدر. واكر وال خلط كه اندن كجيك والور غليظ والورسه اول كجيك كيج كدر وبو كجيك عارض اولور قرو اتلر يمكدن وطزلو وقر بالق يمكدن وطزلو قرو بينر يمكدن ودخي نكه بكلر بكزر.

If they pound savin juniper and purslane seeds and crush them with vinegar, then enters the bathhouse and anoint the water of purslane to the body within the bathhouse, and after leaving the bathhouse, anoint it upon the body. It heals both scabies and itches.

Another beneficial type is for scabies, low back pain and contrary winds when applied in the bathhouse. Its herbs: rose, myrtle leaf, pennyroyal, and cumin, one handful of each. Boil all these with syrup until half of the liquid remains. Thereafter, add one hundred *dirhams* of unslaked lime, fifteen *dirhams* of yellow arsenic; ginger, walnut, clove and frankincense, three *dirhams* of each; and ten *dirhams* of black caraway. They pound softly these herbs and sieve them, then knead with the aforementioned boiled syrup until it attains consistency that is neither too firm nor overly fluid. Afterward, they should enter the bathhouse and anoint themselves with this preparation before bathing the body; it may be beneficial.

For a certain type of scabies, known as *sürük*, which is referred to as goat scabies (*keçi uyuzu*): they should weigh out equal quantities of the inner kernels of pumpkin seeds and sulfur; then pound and sift them finely, mixing with tail fat. They anoint the forearm [of the person], from the elbow downward, and dry it before the hearth; then anoint it before the hearth for three consecutive nights. And let [the person] take a small amount of this ointment into both palms; then clasp both palms together, and sleep; it may be beneficial.

You should know that if itching emerges on the skin without scabies, its cause results from sharp vapours and, it arises less from the sharp humours. However, if it is soft and subtle, the itching resulted from that humour will likewise heal quickly. Yet, if the humour causing the itching is thick, the itching will heal more slowly; and this type of itching often arises from the consumption of dried meats, salty and dried fish, and salty and dried cheese as well as the others resembling these.

علاج: اوّل قان الدرلر. اندن صكره اسهال ايتدركر شول مسهلله كه كينمش خلطلري چقر وخلطلر جقچق جواو ايجرلر وماء الجبن ورلر وجرب غدالر يدرلر. ودايمه مرطب حاملره كوره لر. حمام ايجنده كجيكي اولر يغيله وسركيله وكرفس صويله وبرز بوريله. وجماع ايتمكدن سقينلر زيرا جماع مده لري تحرك ايدر اندن اسي بخارلر قپر كلور دري اوزرنه جقر ومتعفن اولور. اول بخاردن تنك رائحه سي يرمز قُقَر. اندن اوتُرُ حكماء جنابت غسلندن اومق بيردلركه اول بخاركه جماعدن قپر تحليل ايدر زيان اولمز. وبو كجيك جقلرده دخي حادث اولور، درلري ضعيف اولدغجون ودخي طزلو بلغم بنلرده چوق متولد اولدغندن وال بخارلركه بغلنر دريلري التنده تحليل ايدمدكلرندن. بونلرك تدبيرلري غدالردن اصلاح ايده لر، دائم حمام كرب كودلرينه كل يغيله سركه درتلر، نافع والا.

بر مرهمكه ايوزي كدرر مجربدر: مردسنك وزيت يغي سركه. اوّل مردهسنكي يمشق دوكلر واليلر اندن هوانه قيلر اوزرينه زيت يغين قيلر وازلر تا كه مردسنك حل أولا. اندن صكره اوزرنه از سركه طمزرلر وقرشدرلر ازلر. تمام اول سيركيه يدرلر وينه سركه قيلر بو رسمي حل ايدلر. وحاجت وقتنده حمامه كردكندن صكره بو مرهمي ايوزه درتلر، نافع أولا.

وهر كون يكرمي درهم شهترج صوين اون درت درهم خيارشنبر ايجيله ازلر. وبش درهم بادام يغين قتب ايچسلر شفاء بولا.

The Treatment: first, they should apply bloodletting. Thereafter, they induce evacuation by administering this purgative that expels the burned humours. Once these humours are expelled, they make [the patient] drink *jawāw* and whey, and they make him eat fatty foods. They let them consistently enter humidifying bathhouses, and while in the bath, they rub the itchy area with oil, vinegar, celery juice and some borax. They should avoid from the coital, as the coital moves bodily substances, and from that arise hot vapours which ascend and settle upon the skin, and it became corrupted. Due to these vapours, the odour of the skin stinks. For this reason, physicians advised rubbing during post-coital ablution, so that it dissolves the vapor arisen from the coital, and there no harm arises. This type of itching also manifests in the elderly, owing to the weakness of their skin, the excessive generation of saline phlegm within their bodies, and the vapours which become trapped beneath the skin because they are unable to dissolve them. Their management [is as follows]: they should regulate the diet, regularly pay visit to the bathhouse, and anoint rose oil and vinegar to their bodies; it may be beneficial.

A tested ointment which heals scabies: litharge, olive oil and vinegar. First, they should gently grind the litharge and sift it. Then, they place it into a mortar and pour olive oil over it. They crush it until the litharge dissolves. After that, they drop vinegar little by little onto it. They then mix and grind it. Once ready, they mix it with that vinegar and add vinegar again to dissolve it into this form. When needed, after entering the bathhouse, they anoint this ointment to the scabious; it may be beneficial.

[Another], they should pound twenty *dirhams* of the fumitory juice with ten *dirhams* of cassia fistula seeds and add five *dirhams* of almond oil. If they drink it every day, they may heal.

مفرداتكه ايوزه وكجيكه معالجه اولنور: ايوز ايچون سركله دبن قزلر ييلر ودخي دوكلر قتي قينده لر واغزن صِوَيلَر اندن يغرت قتب ايجه بلدكي اجله واج صباح. بقلاء دوكلر اون ايده لر. خشخاش تخمن دكلر صرف سركيه يترلر بر كجه اندن حمام كرلر درتلر شفاء أولا.

ايوز ايجون سركه مرهمنه زرده جوب اكي درهم، زيت يغي ومردسنك جمع ايدب قرشدرب درتلر. ايوز اولان قره قيون اودني اجله ايجسلر ايوزي كده. حبة الخضراء صمغن اللر ايوزه درتلر ياشي اولسون قروسي اولسون ايوزي كدره. هر كه شلغمي اردي بشرب حمامده تنه درتسلر ايوزي كدر، سجي صقلي كج اغرده. هر كه كشر يبراغن كودسنه دورته نافع والا. هر كه كوكرجن بقيله بازوج قرشدده حمامده درتنه ايوزي كده. هر كه صغر سدن تنور اسنه قتب ايوزه درته كي أولا. يرسه قندن كيندرب يغه قتب ايوزه درتسه كدره. سرمشق يمشق دوكب جغده ايوزه درتسلر نافع أولا. يبان يرپوزن صوين كجيكه درتجك كدره. پرجغك صويني كجيكه درتسلر كدره. كيكو اوتكه سعتردر اني قيندب صوين حمامده درتسلر كجيكي كدره. صاغ اوزمي كه مويزج درلر دوكب زيت يغنه قتب ايوزه درتسلر مفيددر. آغو اغجي كه اسدر قرودر دوكب ياسمين ياغنه قرشدرب اندامله درتسلر كجيك كدره. بقم اوتني دوكب كرفس يا رازيانه صوينه انلري بشرب صوين اللر بربرينه قتلر كجيكه درتسلر كدره. بك بركي معتدلدر قاني صاف ايدر، كجيكي كدرر. بنفشه يغني بر قجكون كجيكه درتسلر كدره ودزلر اغرسن فائده ايدر. اق زاج اسدر قرودر وياش اويوزه مفيددر. دكز كوبكي كل يغيله ومومله قرشدروب ايوزه درتجك فائده ايدر. قوين سدن اكر ايوزه درتسلر كدرر. اكر بر كمسه اوج كونه دكن هرطكله بر درهم صبر يسه، اسكي ايوزي كدره. بادرنبويه قرودر، ايوزه يرر. سنبياديهء يمشق دكلر حل أولا، كل ياغنه قرشدرب ايوزه درتلر نافع اولا بِفرمان خدا.

Simples Employed in the Treatment of Scabies and Itching

For the scabies, they should scrape the root of fumitory and eat it. They pound it and boil it strongly, and lute [the vessel's] mouth. Thereafter, they add some yoghurt to it and drink it as much as possible on an empty stomach, for three mornings. They pound legume and pulverize it into flour. They also pound poppy seeds and soak it in pure vinegar for one night; they then enter the bathhouse and thereafter anoint themselves with that; it may be beneficial.

For the scabies, they should add two *dirhams* of turmeric, olive oil and litharge to vinegar ointment and mix it well, then anoint with it. [Another] if the scabious drinks the gall of a black sheep upon an empty stomach, it heals the scabies. They should take green gum grain and anoint it upon the scabious; it heals the scabies either the moist or the dry. Whoever cooks the turnip and anoints it unto the skin in the bathhouse, it heals scabies and turns the hair and beard white over time. Whoever anoint the carrot leaf unto the body, it may be beneficial. Whoever mixes dove's dung with pennyroyal and anoints himself therewith in the bathhouse, it heals scabies. Whoever mixes bovine milk with furnace soot and applies it unto the scabies, it may heal. If one burns the wing of a bat and mixes it with oil, and anoints it upon the scabies, it may heal it. If they gently pound the fruit of ivy and apply it upon freckles and the scabies, it may be beneficial. If one anoints the wild pennyroyal water, it may heal the itching. If they apply the water of vetch to the itching, it may heal. If they boil the herb thyme, which is called *sa'ter*, and apply its water in the bathhouse, it may heal the itching. If they pound the mountain grape, which is called stavisacre, and mix with olive oil, and anoint upon the scabies, it will be beneficial. If they pound the oleander, which is hot and dry, and mix with jasmine oil and anoint it upon the limbs, it may heal the itching. If they pound the herb logwood and cook it with the water of celery or fennel, (they take its water and mix them all) and apply to the itching, it may heal. The common fumitory is moderate, it purifies the blood, heals the itching. If they apply the violet oil upon the itching for a few days, it may heal that, and it will be beneficial for the aching of the knees as well. White vitriol is hot and dry; it is beneficial for the moist scabies. Seafoam may heal the scabies when mixed with rose oil and beeswax and anointed upon the scabious. If they apply sheep's milk to the scabious, it heals that. And if one eats one dirham of aloe every morning for three days, it may heal the chronic scabies. Lemon balm is dry and beneficial for the scabies. They gently pound *sanbiyâda* [?] and it dissolves; then they mix it with rose oil and apply to the scabies, it may be beneficial with the permission of God.

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Treating "Frankish Scabies": Early Ottoman Medical Views on Venereal Syphilis through the Eyes of Ibrāhīm b. ʿAbd Allāh (fl. 1505)

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Abstract

The new global health crisis caused by syphilis pandemic first emerged in Naples in 1494-1495 and spread to the other rest of the world within a few decades. Modern academic discourse has mainly concentrated on the outbreaks in Europe, with only a few exceptions that focused on non-European experiences of the epidemic in the same period, including in regions such as Iran, India and China. Another contribution has been made by a few researchers who examined the Ottoman experiences of the venereal syphilis through an analysis of Ibrāhīm b. ʿAbd Allāh's *Alā'im-i Jarrāhīn*, the earliest known medical text to discuss the disease, where it is referred to as "Frankish Scabies" (*Frengi uyuzu* in Turkish). After discovering a bilingual manuscript written in Greek and Syriac at the fortress of Methoni during the Ottoman campaign in 1500, Ibrāhīm expanded upon the work and completed his surgical manual in 1505. As evidenced in his text, Ibrāhīm consulted European sources and referenced a European physician. By presenting the original Old Turkish text, based on a manuscript, alongside its modern English translation, this study aims to contribute to the historiography of epidemics from an Ottoman perspective and to clarify the Ottoman understanding of the venereal syphilis during the early years of the outbreak. In doing so, this chapter examines Ibrāhīm's theoretical explanations and clinical approaches to the disease through a close examination of his work and a comparative analysis with selected 16th-century Italian medical texts.

Keywords: History of Epidemics, Venereal Syphilis, Ottoman surgeons, Ibrāhīm b. ʿAbd Allāh, Alā'im-i Jarrāhīn.

I. Introduction

At the end of the 15th century, a new global health crisis appeared, spreading from West to East: the venereal syphilis pandemic, which began with the French invasion of Italy by the army of Charles VIII in 1494 and the

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subsequent capture of Naples in 1495.[1] Caused by the *Treponema pallidum* spirochete, syphilis began to be occupied a significant place in both European and non-European medical literature for several centuries following its initial outbreak. Condemnation of causing the epidemic, the societies accused each other, and followingly this new outbreak was referred to by various names such as the "French disease", the "Neapolitan disease", the "German disease", the "Polish disease", "the Spanish/Castilian sickness" or "the Canton rash/Chinese ulcer", becoming quickly the subject of considerable medical and scholarly attention.[2] After the devastating effects of Bubonic Plague, caused by *Yersinia pestis*, syphilis became one of the deadliest pandemics in world history, responsible for millions of deaths up until now.[3]

Within only a few years of its initial appearance between 1494 and 1496, cases of syphilis were reported in Scotland (1497), India (1498), China (1502), and by 1512 in Japan and Korea, with medical texts from these regions including references to the disease and its treatment.[4] The mention of syphilis in *Kholasat al-Tajarob*, a Persian medical treatise written in 1502 by Bahāʾ al-Dowla al-Rāzī, indicates that awareness of the disease had reached the Iranian territories at an early date.[5] Studies on the history of syphilis in Western academic circles have, to date, predominantly concentrated on cases that emerged across European territories. In contrast, the early responses of Ottoman physicians and surgeons to the venereal syphilis epidemic remain largely obscure, most likely due to the

[1] J.G. O'Shea, ''Two Minutes with Venus, Two Years with Mercury'-Mercury as an Antisyphilitic Chemotherapeutic Agent', *Journal of the Royal Society of Medicine* 83, no. 6 (June 1990): 392; Jon Arrizabalaga, John Henderson, and Roger Kenneth French, *The Great Pox: The French Disease in Renaissance Europe* (New Haven and London: Yale University Press, 1997), 20–21; Mircea Tampa et al., 'Brief History of Syphilis', *Journal of Medicine and Life* 7, no. 1 (2014): 4.

[2] After the first outbreak, societies condemned each other as the cause of the new epidemic; the Frenchs accused the Italians, calling it "Neapolitan disease" while the Italians accused the Frenchs, calling it "French disease". When syphilis was disseminated all over the Europe, the Poles accused the German, Russians accused the Poles, the Dutch and North Africans accused the Spanishes, while the Japanese accused Chinese, the Ottomans, Iranians and Indians accused the Europeans when the epidemic spreads towards the East, See Cyril Elgood, 'Translation of a Persian Monograph on Syphilis: Entitled Risála-I-Átishak by Imád-UL-Dín Mahmúd Bin Mascúd Bin Mahmúd-UL-Tabíb', *Annals of Medical History* 3, no. 5 (1931): 465; D.V. Subba Reddy, 'Phirangi Roga' or Syphilis in India in 16th and 17th Centuries : Sketches of Early Indo-European Syphilographers with Extracts from Their Writings (Bombay: B. Subbarao, 1943); Brenda J. Baker et al., 'The Origin and Antiquity of Syphilis: Paleopathological Diagnosis and Interpretation [and Comments and Reply]', *Current Anthropology* 29, no. 5 (December 1988): 703–37; Bruce M. Rothschild, 'History of Syphilis', *Clinical Infectious Diseases* 40, no. 10 (15 May 2005): 1457–58.

[3] Despite improved conditions in modern medicine, syphilis is still a persistent global health concern, affecting more than 17 million adults (aged 15 to 49) worldwide in 2012; see Rosanna W Peeling et al., 'Syphilis', *The Lancet* 402, no. 10398 (22 July 2023): 336.

[4] He Bian, 'Tufuling/China Root: A Novel Cure for Syphilis and Mercurial Poisoning as Presented in Li Shizhen's Systematic Materia Medica', *Harvard Library Bulletin*, 2021.

[5] See, Elgood, 'Translation of a Persian Monograph on Syphilis'.

limited number of early treatises discussing the disease within the corpus of Ottoman medical literature. Given this gap, it becomes essential to examine the available early Ottoman sources that focus on syphilis. Evidence suggests that the earliest known Ottoman response to syphilis is documented in a single surgical manual, *Alā'im-i Jarrāhīn* (literally "*The Signs of Surgeons*") written by the military surgeon, Ibrāhīm b. ʿAbd Allāh (fl. 1505).[6] However, Ibrāhīm's work was not specifically composed to discuss syphilis; rather, it is a general surgical manual, with its final section devoted to the aforementioned epidemic. In this context, this chapter aims both to shed light on the obscurities, outlined above, in the history of syphilis in non-European regions, particularly within Ottoman territories during the early stages of the outbreak, and to introduce an early Ottoman medical source on the subject to English-speaking audiences within the specific context of early syphilis literature. Before analysing Ibrāhīm's approach, it is essential to consider the emergence and early development of the syphilis pandemic during the late fifteenth and early sixteenth centuries.

II. The Emergence of the Syphilis Pandemic in the late Fifteenth Century

Long before the modern studies, 16th century-sources concurred that the initial outbreak of syphilis coincided with the invasion of Italy by Charles VIII's army in 1494 and the subsequent capture of Naples in 1495.[7] However, modern

[6] Several contemporary academic works in Turkish literature have explored the contributions of Surgeon Ibrāhīm b. ʿAbd Allāh; for some of the notable studies, see Fuat Kamil Beksan, 'Avrupada Frengi Tarihini Alakadar Eden Türkçe Bir Vesika/Un Document En Langue Turque Intéressant l'Histoire de La Syphilis En Europe', *Türk Tıb Tarihi Arkivi* 3, no. 10 (1938): 49–54; Nuran Yıldırım, 'Alâim-i Cerrâhîn Üzerine Bazı Yeni Bilgiler. I', *Uluslararası Türk-İslam Bilim ve Teknoloji Tarihi Kongresi*, İTÜ, 1981, 14–18; Nuran Yıldırım, 'Alâim-i Cerrâhîn'in Bilinmeyen Bir Ozeti', *Tıp Tarihi Arastirmalari History of Medicine Studies* 1 (1986): 100–104; Deniz Belen, Ahmet Aciduman, and Uygur Er, 'History of Peripheral Nerve Repair: May the Procedure Have Been Practiced in Hippocratic School?', *Surgical Neurology* 72, no. 2 (1 August 2009): 190–93; Fehmi S. Katırcıoğlu, 'Circulatory System in Alâ'im-i Cerrâhîn and Cerrâhnâme (Surgical Treatise) by Unknown Author of the Ottoman Era', *Turkish Journal of Thoracic and Cardiovascular Surgery* 19, no. 2 (2011); Mehmet Gürlek, 'İbrahim Bin Abdullah'ın Cerrâh-Nâme (Alâ'im-i Cerrâhîn) Adlı Eseri (Giriş-Metin-Sözlük)' (Doctoral Dissertation, İstanbul, Marmara Üniversitesi, 2011); Mehmet Gürlek, 'Anadoluda Yazılmış Ilk Türkçe Cerrahî Yazmalara Bir Örnek: Alâ'im-i Cerrâhîn', *Electronic Turkish Studies* 6, no. 3 (2011); Mehmet Gürlek, ''Alâ'im-i Cerrâhîn'de Geçen Bitki Adları', *Adıyaman Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, no. 7 (1 December 2011): 123–45; Ahmet Acıduman and Berna Arda, 'Kitâb-ı Müntehab Fî't-Tıbb 'Alâ'im-i Cerrâhîn'in Kaynaklarından Birisi Olarak Kabul Edilebilir Mi?', *Belleten* 79, no. 285 (2012): 431–72; İbrahim bin Abdullah, *Alâ'im-i Cerrâhîn: Cerrâh-Nâme (İnceleme-Metin-Tıpkıbasım)*, Bilim ve Felsefe Serisi 32 (İstanbul: Türkiye Yazma Eserler Kurumu Başkanlığı Yayınları, 2016).

[7] Alessandro Fontana, *Trattato Di Mal Francese* (Venetia: Andrea Carnaccioli, 1556), 1; Pietro Rostinio, *Trattato del Mal Francese* (Venetia: per Lodouico Auanzi all'insegna dell'albero, 1559), 9; Niccolò Massa, *Il libro del Mal Francese* (Venetia: Appresso Giordano Ziletti, 1565), 2–3; William Clowes, *A Briefe and Necessarie Treatise* (London: Printed for Thomas Cadman in Paules Curchyard, 1585), 1;

researchers have proposed three main hypotheses regarding the origins of the syphilis, which persisted for centuries as a threat to human health and eventually reached the scale of a global epidemic: according to the first hypotheses, syphilis was introduced to Europe by Christopher Columbus (d. 1506) and his crew upon their return from the Americas in 1493. On the other hand, the second hypotheses posits that syphilis had already existed in Europe, Asia and Africa prior to Columbus's voyages but had been misdiagnosed or conflated with leprosy. Finally, the third hypothesis, which aligns with the pre-Columbian theory, maintains that treponemal diseases, including syphilis, existed in both the "New World" and the "Old World" before Columbus and evolved alongside human populations.[8] However, in light of palaeopathological evidence, many scholars argue that venereal syphilis did not appear in Europe and other regions until after the Columbian expeditions; while it began to appear in the medical literature only after Columbus's return, other treponemal infections caused by *Treponema* species, such as pinta, yaws and endemic syphilis, had been present in the pre-Columbian era.[9] Given the extensive attention devoted to this debate in modern scholarship, this chapter will refrain from discussing it in detail. Instead, it will focus on the historical narratives surrounding the emergence of the new pandemic, particularly in the Ottoman case. Before turning to these historical accounts, however, it is necessary to examine the modes of transmission of the pathogen and the clinical symptoms associated with the infection.

Caused by the *Treponema pallidum* spirochete, venereal syphilis is a contiguous disease, transmitted sexually or non-sexually, through direct contact with the open lesions, infected fomites or by infected blood transfusion, while it is also known that in congenital syphilis, the pathogen can be transmitted mother-to-foetus via placenta.[10] The progresses of syphilis in the patient body were divided mainly into three stages (except for the latent period during which no symptoms is observed between the secondary and the tertiary stages): primary, secondary, and tertiary. In the primary stage, after the pathogen entered into the body through intact mucous membranes or damaged skin, an incubation period ranging from two to six weeks takes place, and a painless lesion known as a chancre usually emerges in the genital area, or sometimes in or around the

Ulrich Hutten, *De Morbo Gallico: A Treatise of the French Disease*, trans. a Canon of Marten-Abbye (London: John Clarke at the Bible under the Royal Exchange, 1730), 1; Arrizabalaga, Henderson, and French, *The Great Pox*, 20–21.

[8] For the three hypotheses regarding the origins of the syphilis infection, see Tampa et al., 'Brief History of Syphilis'.

[9] Baker et al., 'The Origin and Antiquity of Syphilis'; Kristin N. Harper et al., 'The Origin and Antiquity of Syphilis Revisited: An Appraisal of Old World pre-Columbian Evidence for Treponemal Infection', *American Journal of Physical Anthropology* 146, no. S53 (January 2011): 99–133.

[10] John Arrizabalaga, 'Syphilis', in *The Cambridge World History of Human Disease* (Cambridge University Press, 2008), 1025–26.

mouth.[11] In the following secondary stage, several signs might also appear from macular or popular rash affecting palms and soles without itching to the enlarged lymph nodes, including oral ulceration, aches in the bones, mucocutaneous lesions, joint pains, weight loss, patchy hair loss, fever, malaise and anorexia, although the chancre lesions are generally recovered before the second stage.[12] Finally, in the tertiary stage observed in approximately one-third of untreated cases, is characterized by the appearance of gummatous lesions (also called gumma), which are painless ulcers affecting skin, bones and viscera, and the cardiovascular complications might appear, while in cases where the central nervous system becomes infected, neurosyphilis may develop.[13]

Concluding the modern definition of clinical manifestations of the disease, some questions arise: how did the premodern physicians confront and manage the new pandemic crises? In what terms did they define the disease, and what therapeutic approaches did they employ? What signs and symptoms did they observe and report? Did they even draw comparisons or distinctions between syphilis and other contemporary diseases? While most of those questions have already been discussed in previous studies, the late fifteenth and early sixteenth century medical sources might offer a comparative perspective for evaluating the earliest Ottoman understanding of this new disease.

III. Early Perceptions and Reactions to the Emerging Epidemic

Premodern medical practice was established by the dominant framework of humoral pathology until the late nineteenth century when the advent of germ theory began fundamentally to transform the medical thought. Until the pathogen spirochete was successfully isolated in 1905 by the German zoologist Fritz Schaudinn (d. 1906) and the dermatologist Erich Hoffmann (d. 1959), several theories were proposed on the aetiology and treatment of disease.[14] In the initial years of the outbreak, physicians could find no way to clarify the cause and the cure of syphilis. For explaining the cause, some notable figures such as Bernardino Zambotti (d. after 1500) and William Clowes (d. 1604) emphasized the role of sexual transmission, particularly highlighting the spread of the disease

[11] Arrizabalaga, 1028; Peeling et al., ‘Syphilis’, 337.

[12] Arrizabalaga, ‘Syphilis’, 1028; Peeling et al., ‘Syphilis’, 337; Maria E. Tudor et al., ‘Syphilis’, in *StatPearls* (Treasure Island (FL): StatPearls Publishing, 2025).

[13] For more details on the stages and clinical manifestations of venereal syphilis, see Arrizabalaga, ‘Syphilis’; Peeling et al., ‘Syphilis’; Tudor et al., ‘Syphilis’.

[14] Hitherto, the aetiology and treatment of the syphilis pandemic have received sustained scholarly attention; for the selected works, see Baker et al., ‘The Origin and Antiquity of Syphilis’; Antonis A. Kousoulis et al., ‘Social Aspects of Syphilis Based on the History of Its Terminology’, *Indian Journal of Dermatology, Venereology and Leprology* 77 (2011): 389; Arrizabalaga, ‘Syphilis’; S. Patel et al., ‘Syphilis: A Fresh Persian Perspective’, *New Zealand Medical Student Journal*, 2018, 59–62.

among men who had sexual relations with prostitutes.[15] For some authors, the disease was sometimes confused with, or compared to leprosy or gonorrhoea, speculating on a connection between leprosy, gonorrhoea and syphilis, while others, noting the presence of rashes and pustules, contrasted it with the smallpox and distinguished syphilis by referring to it as the "great pox".[16] The German poet and satirist, Ulrich von Hutten (d. 1523), asserted that the contemporary physicians could not find any cause to explain the outbreak, although he drew attention to astrologic events (like the Spanish physician Pere Pintor (d. 1503)) or the change of air (like the Italian Physician Niccolò Leoniceno (d. 1524) thought) causing the corruption or purification as in the case of plague or any epidemics, which suddenly and simultaneously appeared in multiple individuals, resembling Galen's miasmatical explanation.[17] According to this view, the disease was transmitted through the inhalation of or contact with putrefied substances released into the air due to various environmental causes (accompanied by numerous natural calamities like floods and earthquakes). Unlike Leoniceno and Hutten, the Spanish physician Gaspar Torella (d. 1520) put forward another idea that something thick and quickly evaporable substance causes the disease, transmitted through direct or indirect contact (through skin-to-skin, or sometimes sharing a bed with an infected person, or even through breastfeeding), reminding Girolamo Fracastoro's famous contiguous theory.[18]

Setting all these divergent explanations for the aetiology and transmission aside, physicians agreed that, the illness corrupts and poisons the blood, and disrupts the balance of the body's humours, and in line with humoral pathology, they sought to restore this imbalance through practices such as bloodletting, cauterization, the administration of medicines including purgatives, diuretics and diaphoretics (including newly introduced plants from the Americas, such as guaiacwood, sassafras, and sarsaparilla, as well as from the Far East, such as China root (*Smilax china*), application of poultices, liniments, lotions and ointments (containing highly corrosive and toxic substances like metallic mercury, mercury salts, antimony, metallic sulphates, nitric and sulphuric acids, lead and ext.); and in some cases, by placing the patients in baths and furnaces to

[15] Clowes, Morbus Gallicus, 2; Arrizabalaga, Henderson, and French, *The Great Pox*, 50–52.

[16] Eugenia Tognotti, 'The Rise and Fall of Syphilis in Renaissance Europe', *Journal of Medical Humanities* 30, no. 2 (1 June 2009): 103; Predesh Parasseril Jose, Vatsan Vivekanandan, and Kunjumani Sobhanakumari, 'Gonorrhea: Historical Outlook', *Journal of Skin and Sexually Transmitted Diseases* 2, no. 2 (2020): 111.

[17] Hutten, *De Morbo Gallico: A Treatise of the French Disease, Publish'd above 200 Years Past*, 4–5; Arrizabalaga, Henderson, and French, *The Great Pox*, 119–26.

[18] Arrizabalaga, Henderson, and French, *The Great Pox*, 122; Tognotti, 'Syphilis', 104–5.

induce perspiration.[19] Furthermore, the newly introduced plant transported from the Americas and traditionally used by indigenous peoples, known as “Guaiacwood”, became such a prominent ingredient in antisyphilitic remedies that numerous authors of the early sixteenth century, such as Leonardus Schmaus, Ulrich von Hutten, Jehan Cheradame, Nicolaus Pol, Alfonso Ferri, Antoine Lecoq, Walther Hermann Ryff and Nicoles Michel, penned treatises on its use and efficacy.[20]

Outlining briefly the early European responses to syphilis during the Renaissance, it is now necessary to consider whether the Ottomans encountered syphilis in the early phases of its spread in the late fifteenth and the early sixteenth century and, if so, how they understood and responded to this new epidemic. Evidence indicated that the Ottoman Empire, a new rising Muslim power in the Eastern Mediterranean encountered syphilis in its early stages. Although independent treatises on syphilis by Ottoman authors, such as Hayātizāde Mustafa Fayzī Efendi’s (d. 1692) *Treatise on the Frankish Disease*, began to appear in the 17th century, the earliest known mention of syphilis was made by Ibrāhīm b. ʿAbd Allāh, the surgeon of the Ottoman army.[21] For that reason, conceiving the early Ottoman knowledge needs a close examination of Ibrāhīm

[19] Arrizabalaga, Henderson, and French, *The Great Pox*, 131–39; Tampa et al., ‘Brief History of Syphilis’; Daniel Trambaiolo, ‘Antisyphilitic Mercury Drugs in Early Modern China and Japan’, *Asiatische Studien - Études Asiatiques* 69, no. 4 (1 December 2015): 1001–5; Katarzyna Plagens-Rotman et al., ‘Syphilis: Then and Now’, *Advances in Dermatology and Allergology/Postępy Dermatologii i Alergologii* 38, no. 4 (2021): 552; He Bian, ‘Tufuling/China Root: A Novel Cure for Syphilis and Mercurial Poisoning as Presented in Li Shizhen’s Systematic Materia Medica’, *Harvard Library Bulletin*, 2021; O’Shea, ‘‘Two Minutes with Venus, Two Years with Mercury’-Mercury as an Antisyphilitic Chemotherapeutic Agent’; Kadir Çelik, ‘Domenico Auda’nın “Breve Compendio Di Maravigliosi Secreti” Adlı Eserinin Garşûnî Tercümesi ve Osmanlı Lübnan’ında Tıbbî Bilginin Dolaşımı’ (Master’s Thesis, Istanbul, Istanbul Medeniyet University, 2025), 391–94; Clowes, Morbus Gallicus, 4.

[20] Leonardus Schmaus, *Lucubratiuncula de Morbo Gallico et Cura Eius Nouiter Reperta Cu[m] Ligno Indico* ([Augsburg]: In officina Sigismundi grim[m] medicine doctoris, at[que] Marci Wyrsung Auguste Vindelicorum, 1518); Ulrich de Hvtten, *De Gvaiaci medicina et morbo gallico liber vnvs* (Scheffer, 1519); Ulrich von Hutten and Jehan Cheradame, *Guaiacum. L’experience et Approbation Ulrich de Huten Notable Chevalier. Touchant La Medecine Du Boys Dict Guaiacum* (Lyon: Claude Nourry, 1520); Ulrich von Hutten, *De Morbo Gallico* (Londini: In aedibus Thomae Bertheleti, 1533); Nicolaus Pol, *De cura morbi Gallici per Lignum Guaycanum, libellus* ([Venetiis : per Ioa[n]nem Patauinum & Venturinum de Ruffinellis.], 1535); Ulrich von Hutten, *Of the vvood called guaiacum* (Londini: Thomae Berthealeti, 1536); Alfonso Ferri, *De ligni sancti* (Impressum Romae: Antonium Bladum Asulanum in Campo Florae., 1537); Antoine Lecoq, *De ligno sancto non permiscendo*, (Parisiis : Apud Simonem Colineaum, 1540); Alfonso Ferri and Walther Hermann Ryff, *New erfundne heylsame* (Strassburg: Balthassar Beck, 1541); Nicoles Michel, *Methode curative de plusieurs et diverses maladies*, trans. Nicoles Michel (Rouen: Petit, Jean, 1545).

[21] While a modern Turkish transliteration of Hayātizāde’s treatise is available in Üngör’s master’s thesis, a modern English translation has yet to be produced, see Hamdi Üngör, ‘Hayatîzâde Mustafa Feyzînin Risale-i Maraz-ı Efrenc Adlı Eseri vr.(50b-102b) (İnceleme-Metin-Dizin-Tıpkıbasım)’ (Master’s Thesis, Türkiyat Araştırmaları Enstitüsü, 2016).

b. ʿAbd Allāh's surgical work, which provides a valuable perspective on the early Ottoman medical thought of syphilis.

IV. Ibrāhīm b. ʿAbd Allāh on the Treatment of "Frankish Scabies"

Detailed information about the author's biography is scarce in the available sources. However, Ottoman medical historians have thought that Ibrāhīm must have been a *muhtadī* (a convert to Islam) as his father was named ʿAbd Allāh, and he himself stated in his work that he was proficient in Syriac and Greek, implying his non-Muslim born.[22] Serving as a military surgeon in the army during the reign of Bayezid II (r. 1481-1512), he has supposedly held the position of palace surgeon as well. In presenting his text, during Sultan Bayezid II's campaign in Morea, Ibrāhīm recounts the discovery of a bilingual Syriac-Greek surgical manuscript entitled "*Chindar*" at the fortress of Methoni in 1500. As previously mentioned, thanks to his knowledge of both languages, he completed the translation of this book into Old Turkish in 1505, entitling it *Alā'im-i Jarrāḥīn*, aiming to serve as a model for those beginning the surgical profession, as the author of the manuscript referenced ancient philosophers and physicians such as Plato, Hippocrates and Galen, as well as later philosophers and physicians like Ibn Sīnā. However, Ibrāhīm also made additions to the work and wrote his own experiences as well. Throughout the text, the author discusses various conditions, including wounds, abscesses, tumours, fractures and dislocations, with detailed descriptions of treatments involving oils, ointments, pills, pastilles, gargles and suppositories. The work was divided into twenty-two chapters, with separate sections on gunshot wounds. He devotes the final chapter to syphilis, which offers clear evidence of the Ottomans' earliest awareness.[23]

When describing syphilis, the author refers to as "*qurḥa*" (an Arabic term for ulcer and chancre). He points out that this disease is named "*Mal Francese*" by the Europeans, while it is referred to as "Frankish Scabies" (*Frenk uyuzu*) in Turkish, indicating that the author most probably drew upon Italian or Latin sources. Unlike later Ottoman physicians, Ibrāhīm does not define syphilis as a "disease" (*zahmet*) but rather terms it "scabies" (*uyuz*), likely due to the appearance of "pocks" (*çiçek*) or rashes resembling those caused by scabies, manifested in the disease.[24] It is indeed not surprising that, immediately after discussing syphilis in the same chapter, he also addresses the treatment of scabies.

The two doctors of "physics", Alessandro Fontana (fl. 16th century) and Pietro Rostinio (fl. 16th century), both of whom wrote a book on the subject,

[22] Abdullah, *Alâ'im-i Cerrâhîn*, 23–24.
[23] For further discussion on the author and his work, see Abdullah, *Alâ'im-i Cerrâhîn*, 20–31, 47–48.
[24] His contemporaries in Europe also drew a comparison between syphilis and smallpox, naming the former the "Great Pox" in order to distinguish it from the latter; Tognotti, 'Syphilis', 103. For a detailed discussion, see Arrizabalaga, Henderson, and French, *The Great Pox*.

discussing 234 types of the "French disease", illustrated the hidden reason behind this.[25] While clarifying the varieties of French disease, both writers separated the types in accordance with the clinical manifestation of it. For example, they refer to it as "French tumours" or "French hardnesses" (*Tumori gallici* or *Durezze gallice*), to describe conditions in which only particularly hard swellings appear during the illness. Likewise, to define the cases in which only pain is manifested, they refer to the condition as "the pains of French disease" (*Dolori di mal Francese*). To return to the subject, the type referred to as "French Scabies" (*Rogna Francese*), or "Frankish Scabies" as named by Ibrāhīm, describes conditions in which only pustules and crusts appear on the body. For this reason, the term "scabies" should be understood as referring to rashes, crusts, pustules and general skin eruptions rather than its modern medical sense, most likely encompassing a range of pruritic and non-pruritic dermatological conditions. On the other hand, these types might be occasionally designated with compound terms; for instance, "French scabies with the pains" (*Rogna Gallica con dolori*), "the French Scabies with very hard tumours" (*Rogna Gallica con durissimi tumori*) and "French Pains with very hard tumours" (*Dolori Gallici con durissimi tumori*), when these distinct clinical manifestations occur simultaneously on the body.[26] After a close examination of why Ibrāhīm and various European authors referred to the disease as "scabies", the names revealed that the presence of pustular rashes on the body led them to draw parallels between the cutaneous manifestations of scabies and those observed in syphilis (as well as smallpox, leprosy and gonorrhoea). On the second hand, unlike his contemporary European authors, Ibrāhīm made no mention of tooth and nail loss, hair shedding or eye damages in the illness or during its treatment.[27]

Ibrāhīm presents various physicians' historical views on the origin of the disease without specifying names. According to him, some physicians or philosophers put forward that the disease was not new. They claimed that it had existed since the time of Noah, or its origin traced back to the era of Moses, and the outbreak recurred approximately once every thousand years. Ibrāhīm attributed the cause of this "Frankish scabies" to the corruption or putrefaction of the air, similar to explanations given for the plague and other epidemics by premodern physicians, although he did not explore these accounts in depth.

[25] It is worth noting that the two texts were written in an almost identical manner, suggesting that they may have relied on the same sources, or that they were, in fact, authored by the same person. Interestingly, both texts repeat the same incorrect date 1485, as the emergence of the syphilis epidemic. Nevertheless, this study does not centre on Alessandro Fontana and Pietro Rostinio, a more thorough analysis of both texts is required, see Fontana, *Trattato Di Mal Francese*, 1; Pietro Rostinio, *Trattato del Mal Francese*, 9.

[26] Fontana, *Trattato Di Mal Francese*, 3–4; Pietro Rostinio, *Trattato del Mal Francese*, 10.

[27] Fontana, *Trattato Di Mal Francese*, 3; Pietro Rostinio, *Trattato del Mal Francese*, 11–12; Hutten, *De Morbo Gallico: A Treatise of the French Disease*, 9–11.

However, it should be noted that, unlike many European works of the period, Ibrāhīm's writings make no assertion that either the disease was brought to the Old World from the Americas by Columbus's crew, or the new outbreak occurred during the French army's invasion of Naples. Secondly, in attributing the disease to a French origin, he employed the term "Frank" which was commonly used by the Ottomans to refer to the French and, more broadly, to Europeans.

Setting the debates on the origin and names of the disease aside, Ibrāhīm begins explaining the syphilis based on the framework of the dominant medical paradigm of his time, humoral pathology, without addressing contagion theory. Citing unidentified philosophers or physicians, he noted that the disease manifests in three forms: one dominated by black bile and phlegm, another by blood and phlegm, and a third characterized solely by an excess of phlegm. Among these, the type dominated solely by phlegm is described as so severe that physicians are powerless to cure it. Similar to that, in cases where black bile predominates, the disease is also considered incurable. As Clowes explicitly clarified, the predominant humour in an illness can be determined by examining the colour and characteristics of the pustules or "scabies". According to him, if the pustules are red and swollen, this signifies that blood is the dominant humour corrupting the body. In contrast, the presence of foul discharge and a certain dryness without swelling indicates the predominance of yellow bile. When the pustules appear as blains darkened in colour and containing considerable matter, this suggests that black bile is dominant. Finally, the presence of white, broad and soft pustules is indicative of phlegm as the prevailing humour.[28]

Ibrāhīm clearly states that, the signs and symptoms might vary according to the types. For example, in some types there are more rashes and pains than the others, or pains may affect different parts like lower legs or joints. He consulted European sources as he referenced a physician named "Marino Francese," who was presumably of European origin. He cites Marino twice in reference to medicinal remedies. According to the text, regardless of the severity of the rashes and pain caused by the Frankish scabies, Marino claimed that he had achieved to cure the disease administrating an oil he had discovered, and in another remedy, Marino is portrayed as a successful physician who had cured many with that. Indeed, Marino is not the only physician cited by the author. In a separate formulation for the preparation of an ointment, the author attributes the remedy to two renowned ancient philosophers and physicians: Socrates and Hippocrates. All these aspects suggest that Ibrāhīm did not understand the Frankish scabies as a new disease. That interpretation can also be supported by his reference to the disease as having existed since the time of Noah and Moses.

[28] For all, see Clowes, *Morbus Gallicus*, 4.

Without providing an in-depth discussion of the aetiology and symptoms of the disease, the author proceeded directly to prescribing treatments. He compiled thirteen formulations, including oils, ointments, syrups and *Muġlāb* (a sweet-tasting drink prepared from sugar), each composed of a variety of animal, mineral and plant-based substances, applying for both internal and external use. Upon a close examination of the ingredients, it is obvious that the author utilized a diverse range of substances, predominantly beeswax, animal fats (lard and goat’s suet), gums and resins (like mastic, storax, myrrh, pine resin ext.) to solidify preparations, while employing natural oils, like olive oil, to maintain their balmy consistency. He incorporates spices, aromatic plants, essential oils and sugar to enhance the flavour and fragrance. On the other hand, in line with his European contemporaries, Ibrāhīm also incorporated toxic and corrosive substances like metallic mercury (*jīva*), mercury chloride (*suliman*) and lead carbonate (*isfīdāc*) along with other substances like *rastuq* stone (probably copper or antimony sulphide), sulphur, copper acetate and alum. However, unlike European authors, he made no mention of guaiacwood or its therapeutic applications, nor of other plants introduced from the New World or the Far East. It seems that Ibrāhīm did not find it necessary to cite European sources or include the substances used in their treatments, although he was familiar with certain contemporary European works, such as those of Marino Francese, as well as current developments exemplified by his knowledge of syphilis during the early phase of the outbreak. His assertions that the remedies had been experienced multiple times and proven effective, or that patients who used them had recovered, were most probably part of an effort to persuade the reader that by reading the book and applying its treatments, one could be healed. Such efforts were likely intended to increase the work’s readership and enhance the author’s reputation. Even though Ibrāhīm’s formulations and therapeutic applications offer rare evidence of early awareness of syphilis within the Ottoman medical literature, these efforts were most likely insufficient to eradicate the disease in a medical system still based on humoral pathology, as the true cause, or pathogen, was not be discovered until the early twentieth century, in a new medical system transformed by the rise of germ theory and the decline of humoral medicine.

V. Conclusion

With the discovery of the New World, human beings encountered one more shocking development; a new disease that would later turn into a global epidemic unknown to the ancient physicians. In fact, alongside the new disease, new remedies were also brought from the New World, such as the guaiacwood, sassafras and sarsaparilla. Contemporary physicians, who were initially powerless against the emerging outbreak and considered the illness as incurable, attempted to treat it with several remedies, used both internally and externally.

During these developments, new medical works also appeared, and the characteristics, names, aetiology, signs, symptoms and treatment of syphilis, which was widely known as the French disease, were discussed in that new literature. Spreading from the West to the Far East, the new venereal syphilis pandemic (although premodern physicians did not recognize it as pandemic) did not escape the attention of the rising Muslim power of the era in the Eastern Mediterranean, the Ottoman Empire.

The earliest and only known mention of syphilis was recorded in a surgical book written in the Old Turkish by an Ottoman army surgeon, Ibrāhīm b. ʿAbd Allāh, in 1505. Consulting European sources, Ibrāhīm named the disease "Frankish scabies", as the Ottomans referred to the French and widely Europeans as "Frankish". The term "scabies" (*uyuz*) in the text refers to rashes and pustular eruptions manifested in the disease and is used in comparison with other skin eruptions observed in conditions such as gonorrhoea, leprosy, and smallpox. It thus departs from the modern medical sense of "scabies," most likely encompassing a broad spectrum of both pruritic and non-pruritic dermatological conditions. After discussing the history, cause, signs and symptoms of the Frankish scabies, the author presents thirteenth formulations for its treatment, and the remedies incorporated in the text, including syrups, oils and ointments, were intended to use both internally and externally. This chapter has shown that Ibrāhīm, much like his European contemporaries, utilized corrosive and toxic substances (metallic mercury, mercury chloride and lead carbonate) in his treatments. Yet, in contrast to them, he made no mention of using the New World botanical remedies (guaiacwood, sassafras or sarsaparilla), nor did he engage with the widely accepted theory of his time that syphilis originated in the Americas and was brought to Europe by Columbus's crew after their transatlantic voyages. By offering a rare early reference to the venereal syphilis epidemic and its treatments within the Ottoman medical literature, Ibrāhīm's work not only fills a significant gap in the history of Ottoman medicine but also provides the earliest known evidence of Ottoman physicians' awareness and understanding of syphilis.

The Old-Turkish Text and Translation[1]

الباب الثاني والعشرون

بو باب فرنك اُيوزنك بياننده در. يونان حكيملري شُيلهَ اَيدُرلركهِ بو فرنك اُيوزنك آدى قُرهادر. وفرنك دِلنجهَ ,,مال فرنجسه" ديرلر وتورك دلنجه فرنك اُيوزي ديرلر. ودخي روايت اِدرلركه بو مرض تا نوح زمانندندر. وبعض حكماء ايدرلركم موسى دَورِندن بَرودر وبعضلر اَيدرلركم بو مرض هر بِيك يِلده بِر اولور ديرلر زيرا عفونتِ هوادر.

أمّا حكماء متقدمين وأطباء متاخرين ايدرلركم بو مرض اوج درلو اولور: بري سوداء ايله بلغم غلبه سندن اولور وبرسي قانله بلغمدن اولور وبري مجرّد بلغمدن اولور. اولكه سوداء ايله بلغمدن أولا بجكي اَز اولور صرسى چوق الور، هم صرسى مفصللرده اولر. اولكه قانله بلغمدن اولور آنوك چچكى چوق اولور وصرسى قرُوُ وِانجيكده اولور وقاريجلرده اولور. واولكه يالكوز بلغمدن اولور آنوك يرلري بيوك اولور، ويرلري صولنرخوريه دونر واردوقچه بيور. اندن استاذلر عاجزدر. وصرسى دخي شِشِلهَ اولريرير يمرولنور ودشِلور دخي ايريك وصارو صولر اشلر. الدرجيدر انون كبلر اولدرر دخي بنوك علاجنده جميع حكما عاجزلر.

أمّا حكمادن برنجسي دواء ايلمشلردر، كمي ياغله كمي مغلابله وشربتله. أمّا سودای غالب اولن كِشده اولسه دواسى اولمز. اكركم ياغلماغله وشربت ومغلابله چچكى كيدرسه صرسى كتمز واكر صرسى دخي كدرسه اغزنوك قفوسى كتمز. أمّا قانله بلغمدن واقع اولسه اندنكتسه اولور. ودخي يالكز بلغمدن والسه غايت مشكلدر. أمّا حكيم **مارينو فرنجسه** ايدركه: ‘بَن بر ياغ بلوب دررمكه نقدركه فرنك ايوزنك چچكى وصرسي والورسه كيدرورم ونجسنك كيدردم دخيُ ديو حجّت ايدر. آنون تركيبِ بودركه ذكر اولنور:

[1] In preparing this Old-Turkish text and the English translation, I based on the manuscript held in the collection of Hekimoğlu Ali Paşa (No. 568), whose facsimile edition was published by Gürlek in 2016. See Abdullah, *Alâ'im-i Cerrâhîn.*

Chapter Twenty-Two

This chapter illustrates the "Frankish Scabies". The Greek sages say that the name of this Frankish Scabies is "*qurḥa*", and in the Frankish language, it is called "*Mal Francese*", and in Turkish language, it is referred to as "Frankish Scabies". [The sages] also narrate that this illness dates back to the time of Noah. Some sages say that it has existed since the era of Moses, while some say that it appears once every thousand years, as it [results from] the corruption of air.

The earlier sages and later physicians say that this disease has three different types: one [type] results from the dominance of black bile and phlegm, another type arises from blood and phlegm, while the other results from solely phlegm. In the type which results from black bile and phlegm, poxes are lesser, [although] the pain is intense and appears in the joints. In the type which results from blood and phlegm, here, the poxes are numerous, the pain is dry and affects the lower legs and upper arm. In the type which results from solely phlegm, the places [of poxes] are large, exude fluid, transform into chancre, and progressively enlarge. The masters are powerless against this type. Its pain manifests concurrently with swelling; they swell in certain areas, rupture, and discharge purulent and yellowish fluids. This form is fatal; cases of this type [frequently] result in death, and all sages are powerless to provide its treatment.

However, one of the sages have prepared medicines, some of them treat it with oils while others with *muġlāb* and syrup. However, for the person in whom black bile predominates, there is no cure. Even if the poxes subside through the application of oils, syrups and *muġlāb*, the pain does not; and even if the pain does subside, the foul odour of the mouth does not. Yet, if it arises from blood and phlegm, and it subside, it heals. If it results solely from phlegm, it is extremely difficult to heal. However, the sage Marino Francese says: "*I have discovered an oil by which, regardless of how severe the poxes and pain of the Frankish scabies may be, I am able to cure them; and I have already cured many*", asserting as proof. Its composition is as follows:

مزدكي صقيز اون درهم، كلك اون درهم، چام صقيزي اون درهم، تورتي اون درهم، شاب اون درهم، راستوق طاشي اون درهم، اسفيداج اون درهم، اِفلاق طوزي سكز درهم، بال مومي آلتِ درهم، طاش قناسي اون درهم، مر مكي اون درهم، سليمان اون درهم، كوكرد آلتِ درهم، ژيوه يكرم درهم، طكوز ياغي اتوز درهم، كل ياغي اون درهم، بابابديه ياغي اتوز درهم، فرفيون ياغي اون درهم، زيتون ياغي قرق درهم، كچى بوكركي ياغي اللي درهم، كلاب اون درهم. بو ادويلري دوكلر وانجه الكدن كچورلر. ودخي ياغلري اريدلر وبر هوانه قيوب قارشدرلر. مرهم ايدلر، اتش كارنده سورلر اوج كوندك. أمّا التن ايي ايده، الت بخش ايده، محكم اورتوب بستوره لر تا كه ترليه لر، آندن عجائب كورلر. أمّا ياغى سرسلر اولدغي وقتن بر صباح وبر اخشام سورلر واُج كونه دكن.

مغلاب بيان ايدر: وآندن صكره بو مغلاب بشورب اچورلر. مغلابك ادويسي بودر: سنامكي اون درهم، بنفشه خشك بش درهم، كُل خشك بش درهم، سبستان اتوز دانه، عناب اُتوز دانه، شكر اللي درهم، خيارشنبه اچي يكرم درهم، محموده اكي درهم، انجير اون دانه. بو ادويلري بر وقية صويله قاينادالر وسوزلر وازرنه محموده يمشاق ايدب صچالر دخي شكري قتالر. اوج بخش ايليوب اوج صباح اجله ايچلر دخي اسجاق دوتلر اوكات اورتونلر.

Ten *dirhams* of mastic gum, ten *dirhams* of storax, ten *dirhams* of pine resin, ten *dirhams* of tartar, ten *dirhams* of alum, ten *dirhams* of *rastuq stone*, ten *dirhams* of lead white, eight *dirhams* of Wallachia salt, six *dirhams* of beeswax, ten *dirhams* of lungwort, ten *dirhams* of myrrh of Mecca, ten *dirhams* of [corrosive] sublimate, six *dirhams* of sulphur, twenty *dirhams* of mercury, thirty *dirhams* of lard, ten *dirhams* of rose oil, thirty *dirhams* of chamomile oil, ten *dirhams* of euphorbium oil, forty *dirhams* of olive oil, fifty *dirhams* of goat suet [and] ten *dirhams* of rosewater. Grind the remedies well and sift them through a fine sieve. They should melt the oils [separately], then pour them into a mortar, and mix thoroughly to form an ointment. For the space of three days shall they anoint it beside a hearth. Yet the patient must secure the nether parts, divide it into six portions, sit steadfast and press thereon until [the patient] sweats. Thereafter shall they behold its wondrous virtues. They apply the oil once in the morning and once in the evening, for up to three days.

On Muġlāb: thereafter, cook this *muġlāb* and let him drink it. The remedies of *muġlāb* are as follows: ten *dirhams* of senna, five *dirhams* of dried violet, five *dirhams* of dried rose, thirty grains of Assyrian plum, thirty grains of jujube, fifty *dirhams* of sugar, twenty *dirhams* of pulp of cassia fistula, two *dirhams* of scammony, [and] ten grains of figs. They boil these remedies in one *waqiya* of water, then strain it well. Thereafter, they soften the scammony and sprinkle it over [the strained liquid], then add the sugar. They shall divide it into three portions and drink it over three mornings on an empty stomach. Keep [the patient] warm and well-covered throughout.

شربت بياننده در: حب النيل بش درهم، مويزج بش درهم، رازيانه تخم بش درهم، محموده بش درهم. اشبو ادويلري دكوب يمشاق ايدب قايندالر واللي درهم شكر قتوب شوزلر. اندن صكره محموده يمشاق دوكب اوزرنه صچالر. دخي بش ايدب مغلابدن صكره ايچلر. اكر عمل ارتوق اولورسه يكرم درهم آيوه شرابى ايچلر اوزرنه يمك ييالر. أمّا بعض حكماء ايدر: ‘محموده اصلاح ايدلر. أمّا بو شربته اصلاح جائز دكلدر زيرا بز بوني تجربه ايدبدرروز.’

فصل علاجي فرنك ايوزي نوعي ديكر: روغن بابونج اون الت درهم، روغن كُل اون الت درهم، روغن زيت اون الت درهم، كونلك اون درهم، مصطكي اون درهم، قصني اون درهم، چام صقيزي اون درهم، شمع عسل اون درهم، اسفيداج اون درهم، كلاب يكرم درهم، سركه اون درهن، ژيوه اُوتز درهم، كچى بوكركى ياغى اللى درهم، طوز اون درهم. قصني و بال مومن و كچى بوكركى ياغين بو اوجن اوده ورالر ايدلر وباقي ادويه سحق ايدب الكدن كچورلر واَرين ياغلره شيلكه اود معتدل اولا ومزبور ادويلري قرشدرلر وبر ظرفه قيالر. وحاجت وقتنده بوينندن اَشغا طلى ايده اوج كونه دكن ودردنجي كون حمامه كيره.

مغلاب مزبوره: سنامكي اون درهم، عناب اتوز دانه، بنفشه خشك بش درهم، كل خشك بش درهم، مصطكي بش درهم، كونلك بش درهم، قصني بش درهم، عشاق بش درهم، سبستان اُتوز دانه، شكر اللي درهم، خيارشنبه اچى يكرم درهم، شمع عسل اُتوز درهم، چام صقزي قرق درهم، زيت ياغي يكرم درهم. مجموعن قايندلر وسوزلر وظرفه قيالر دخي حاجت وقتنده درت بخش اولنه.

On the Syrup: five *dirhams* of indigo pill, five *dirhams* of stavisacre, five *dirhams* of fennel seed, five *dirhams* of scammony. Grind gently these medicines, then boil and add fifty *dirhams* of sugar, and strain it. Thereafter, grind the scammony to a soft [powder] and sprinkle it over [the mixture]. Then shall they prepare five [portions] and drink it after taking *muġlāb*. If [the purgative] effect is excessive, they drink twenty *dirhams* of quince syrup and afterward partake of food. However, some sages say: "Let them rectify the scammony. Yet, as we have oft experienced, rectification is not permissible in the case of this syrup."

Section. Another treatment for Frankish Scabies: [Take] sixteen *dirhams* of chamomile oil, sixteen *dirhams* of rose oil, sixteen *dirhams* of olive oil, ten *dirhams* of storax, ten *dirhams* of mastic, ten *dirhams* of galbanum, ten *dirhams* of pine resin, ten *dirhams* of beeswax, ten *dirhams* of lead white, twenty *dirhams* of rosewater, ten *dirhams* of vinegar, thirty *dirhams* of mercury, fifty *dirhams* of goat suet [and] ten *dirhams* of salt. They melt the galbanum, beeswax and goat suet together over a fire, and grind the remaining medicines and sift them through a fine sieve. Ensuring the fire is kept moderate, they mix the aforesaid medicines with the melted fats and place the mixture into a vessel. When needed, one anoints it from the neck downward for the space of three days, on the fourth day, bathes in the bathhouse.

Muġlāb mentioned: [take] ten *dirhams* of senna, thirty grains of jujube, five *dirhams* of dried violet, five *dirhams* of dried rose, five *dirhams* of mastic, five *dirhams* of storax, five *dirhams* of galbanum, five *dirhams* of ammoniacum, thirty grains of Assyrian plum, fifty *dirhams* of sugar, twenty *dirhams* of cassia fistula pulp, thirty *dirhams* of beeswax, forty *dirhams* of pine resin, twenty *dirhams* of olive oil. They boil all together and strain well; thereafter, store it in a vessel. When required, it should be divided it into four portions [for use].

فصل علاجي فرنك اُيوزي نوعي ديكر: سكسان درهم چكنك اچي ياغي كه سِزمِش أولا واُتوز درهم ژيوه واون درهم مصطكي صقيز واون درهم خاص كونلك واون درهم قصني واون بال مومى ويكرم درهم اسفيداج واون درهم شام صقيزي واون درهم كل ياغي وان درهم بابونج، يكرم درهم كلاب واون درهم سركه، يكرم درهم زيت ياغي، اللي درهم خنزير ياغي. زيت ياغيله ژيوه والدرلر وقصني سركه اچنده اصلدالر تا كه حل أولا. اندن صكره بو ادويلر اول سكسان درهم ياغك اچنه صلالر وهوان دستيله قرشدرلر. دخي حمامه وره لر، يونالر، چقدقدن صكره اوجغا قرشو ياغليالر. بر صباح وبر اخشام وبر صباح دخي شيلكه اوج دفعه أولا. ياغلاينجاق كندي اورتلر بصدرلردر اچنده يته، ياغلدوقدن صكره اكشيمكدن پرهيز ايده. عجائب مجربدر بلمش اولالر بو ادويدن غافيل اولميالر نيچه كره تجربه اولنمشدر.

فصل فرنك اُيوزي اچون بو دخي مجربدر، صنعت بودر: كونلك وان درهم، مزدكي صقيز اون درهم، سن مكي اون درهم، ژيوه يكرم درهم، بال يكرم درهم، بورسق ياغي اوتوز درهم، كچينك بوكركي ياغي التمش درهم، كل ياغي يكرم درهم، كُل صوي اون بش درهم، تورنج صوي اون درهم، بباديه ياغي اون اكي درهم، خنزير ياغي اُوتوز درهم، كوكورد يدي درهم. اُول ژيوه كوكردله والدرلر دخي اُوزرنه اُوج درهم قنا قتالر، هوان دستيله محكم اوالر. اُول ذكر اولن ياغلري حاضر ايدلر دخي ادويه اوزرنه قيالر قرشدرلر مرهم كب أولا. واُول خسته حمامه قيالر. يوندقدت صكره اتشه قرشو قزدرلر ومحكم اوالر واوه اوه ياغليالر. اكي يرلرني اَرتق اُومَيَالر بُوش بُكورلرن ويُوركنه سرميلر صاقنالر. اندن صكره اوكات اورتوب بصدرلر تا كه درليه. اسي دوتالر تا عجائب كورلر.

Section. Another treatment for Frankish scabies: [Take] eighty *dirhams* of melted goat suet, thirty *dirhams* of mercury, ten *dirhams* of mastic gum, ten *dirhams* of pure storax, ten *dirhams* of galbanum, ten [*dirhams*] of beeswax, twenty *dirhams* of lead white, ten *dirhams* of pine resin, ten *dirhams* of rose oil, ten *dirhams* of chamomile, twenty *dirhams* of rosewater, ten *dirhams* of vinegar, twenty *dirhams* of olive oil, fifty *dirhams* of lard. They kill the mercury with the olive oil and soak the galbanum in vinegar until it dissolves. Thereafter, they pour all these medicines into that eighty *dirhams* of the suet and thoroughly stir them using a pestle. Afterward, they pay a visit to the bathhouse and take a bath. Upon exiting from there, they are anointed three times in total before the hearth: once in the morning, once in the evening, and once again the [following] morning. After the anointment, they shall be kept well-covered, resting indoors. Following the application of the ointment, they must abstain from consuming sour foods. They should know that this remedy is wondrous and proven; those [who have not yet experienced it] must not remain ignorant of it, for that has been experienced many times.

Section. Another proven remedy for Frankish scabies, its art is as follows: [Take] ten *dirhams* of storax, ten *dirhams* of mastic gum, ten *dirhams* of senna, twenty *dirhams* of mercury, twenty *dirhams* of honey, thirty *dirhams* of badger fat, sixty *dirhams* of goat suet, twenty *dirhams* of rose oil, fifteen *dirhams* of rosewater, ten *dirhams* of bitter orange juice, twelve *dirhams* of chamomile oil, thirty *dirhams* of lard, seven *dirhams* of sulphur. They kill the mercury with the sulphur, then add three *dirhams* of henna to [the mixture]; and rub them all well with a pestle. They prepare the oils mentioned above, and then pour them over the medicines, mixing thoroughly until it forms an ointment-like substance. Let the patient bathe in the bathhouse; after bathing, warm the patient before the hearth and massage him thoroughly, anointing him well. However, do not massage the two [specific] areas too much: the flank and the heart; these areas must be avoided. Afterward, they shall be well-wrapped and tightly covered until they begin to sweat. Keep the patient warm until wondrous [effects] are observed.

اللي درهم انيسون، يوز درهم انجير ويوز درهم ارپه قيوب قايندالر، صيوني اچورلر، واتله باليق ويغورد يدرميالر، غليظ غدالردن پرهيز ايدلر. ماريون حكيم ايدر: بو ياغله بر چوق خسته تيمار ايلدم أمّا غليظ غدالردن ينه ازولر صاقنمق كركدر تا كه حاصل واله.

فصل نوعي ديكر فرنك ايوزي علاجي: كل ياغي اون درهم، هم بباديه ياغي اون اكي درهم، صاقيز وان اكي درهم، كتلك اون اكي درهم، اِفلاق طوزي اون اكي درهم، بوركك ياغي بش درهم، بال مومى درت درهم، كُل صوي اون اكي درهم، سوليمن درت درهم، قلمى زنكار اكي درهم، حفتمون اون اكي درهم، ژيوه اكي درهم. مجموعن تركيب ايدب درت بخش ايدلر سورلر.

فصل ملهم بقراط وسقراط صنعت بودر: زيت ياغي اون اكي بچق درهم، شام صقيزي بر بچق درهم، زفت اكي درهمدن دنك اكسك، كونلك بچق درهم، بال مومي اكي بچق درهم، ترمنتنه اكي درهم، بوركك ياغي اكي درهم، كل ياغي اون اكي بچق درهم، عنبر بر بچق درهم، بويان بالي اكي درهمدن دنك اكسك. استادلر عادتنجه مرهم ايدلر.

فصل نوعي ديكر علاجي فرنك ايوزي اچون: روغن بابونج اون درهم، كتلك اون درهم، مسطكي اون درهم، قاصني اون درهم، چام صقيزي اون درهم، شمع عسل اون درهم، اسفيداج اون درهم، سهيل كلارن، سركه بر مقدار، ژيوه اوتوز درهم، كچى بوركي ياغي اللي درهم، طوز اون درهم. قاصني وبال مومني وكچى بوركي ياغني بو اوچنى اودله اريده وباقي ادويلري سحق ايدب الكدن كچروب اريان ادويه معتدل اولجاق قرشدرلر. بويننددن اشغاطلي ايدلر. اكر بر دفعده خلاص اولمزسه اكي دفعده اوج دفعه حمامه كيره مجربدر.

مغلاب فصل دواى مزبور: سنامكي اون درهم عناب اوتوز دانه بنفشه خشك بش درهم كل خشك بش درهم، مزدكي بش درهم، كونلك بش درهم، قاصني بش درهم، اوشاق بش درهم، سپندان اوتوز دانه، شكر اللي درهم، خيارشنبر يكرم درهم، شمع عسل اوتوز درهم، چام صقيزي قرق درهم، روغن زيت.

[Additionally]: they pour fifty *dirhams* of anise, a hundred *dirhams* of figs, a hundred *dirhams* of barley, then boil them together. Let patient drink that decoction; let the patient abstain from consuming meat, fish and yogurt, avoiding also thick foods. The sage Mariyūn says: "*I have treated many patients with this ointment. Yet, thick foods must be avoided until recovery is complete.*"

Section. Another type of treatment for Frankish Scabies: [Take] ten *dirhams* of rose oil, twelve *dirhams* of chamomile oil, twelve *dirhams* of gum, twelve *dirhams* of storax, twelve *dirhams* of Wallachia salt, five *dirhams* of suet, four *dirhams* of beeswax, twelve *dirhams* of rosewater, four *dirhams* of [corrosive] sublimate, two *dirhams* of pen verdigris, twelve *dirhams* of dodder, twelve *dirhams* of mercury. Combine all these medicines and divide it into four portions and anoint it.

Section. The art of the ointment of Hippocrates and Socrates is as follows: [Take] twelve and a half *dirhams* of olive oil, one and a half *dirhams* of pine resin, slightly less than two *dirhams* of pitch, half a dirham of storax, two and a half *dirhams* of beeswax, two *dirhams* of turpentine, two *dirhams* of suet, twelve and a half *dirhams* of rose oil, one and a half *dirhams* of ambergris, and slightly less than two *dirhams* of liquorice gum. Make an ointment with these according to the tradition of the masters.

Section. Another type of treatment for Frankish scabies: [Take] ten *dirhams* of chamomile oil, ten *dirhams* of storax, ten *dirhams* of mastic, ten *dirhams* of galbanum, ten *dirhams* of pine resin, ten *dirhams* of beeswax; ten *dirhams* of lead white, a few lizards, some vinegar, thirty *dirhams* of mercury; fifty *dirhams* of goat suet, [and] ten *dirhams* of salt. Melt the galbanum, beeswax and goat suet together over a fire. Then grind the remaining medicines finely, sift them through a sieve, and combine them moderately with the melted medicines. They anoint the body from the neck downward. If the first application does not bring recovery, repeat [the process] two or three times, and they should bathe in bathhouse; it has been proven.

On Muġlāb mentioned: [Take] ten *dirhams* of senna, thirty grains of jujube, five *dirhams* of dried violet, five *dirhams* of dried rose, five *dirhams* of mastic, five *dirhams* of storax, five *dirhams* of galbanum, five *dirhams* of ammoniacum, thirty grains of Assyrian plum, fifty *dirhams* of sugar, twenty *dirhams* of cassia fistula, thirty *dirhams* of beeswax, forty *dirhams* of pine resin, [and some] olive oil.

فصل مغلاب دكز: سنا مكي اون درهم، بنفشه خشك بش درهم، كل خشك بش درهم، سپندان اوتوز دانه عناب اوتوز دانه شكر اللي درهم، خيارشنبر يكرم درهم، محموده بر درهم انجير اون دانه.

شربت: حب النيل بش درهم، موبزيج بش درهم، سنا مكي بش درهم، حليله زرد بش درهم، بويان صويلمش بش درهم، رازيانه تخم بش درهم، محموده بش درهم.

Section. On another *muġlāb*: [Take] ten *dirhams* of senna, five *dirhams* of dried violet, five *dirhams* of dried rose, thirty grains of Assyrian plum, thirty grains of jujubes, fifty *dirhams* of sugar, twenty *dirhams* of cassia fistula, one dirham of scammony and ten grains of figs.

Syrup: [take] five *dirhams* of indigo pills, five *dirhams* of stavisacre, five *dirhams* of senna, five *dirhams* of yellow myrobalan, five *dirhams* of peeled liquorice, five *dirhams* of fennel seeds and five *dirhams* of scammony.

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A Note on the *Artis Medicae* (1673) by Giovanni Mascellini

Mahmut Halef CEVRİOĞLU*

Abstract

Giovanni Mascellini (1612–1675), a physician educated in Padua, acted as a bridge between European and Ottoman intellectual worlds, enjoying the patronage of Grand Vizier Köprülü Fazıl Ahmed Pasha. In 1673, he authored *Artis Medicae ... Summarium*, a Latin treatise dedicated to the grand vizier. This work adhered to the conservative Galenic framework taught by his mentor Giovanni Domenico Sala (d. 1644), countering suggestions that Mascellini had embraced Paracelsian iatrochemistry. Rather than pursuing innovation, he sought to condense and transmit well-established Galenic knowledge, demonstrating a preference for traditional approaches over chemical experimentation.

Mascellini's medical practice also reflected this orientation, as seen in his humoral diagnoses of figures such as Sultan Mehmed IV, Selim Giray Khan and Fazıl Ahmed Pasha. While certain remedies hinted at Paracelsian influence, these were likely the product of collaboration rather than a personal shift in doctrine. His treatise appears to have been aimed primarily at a European scholarly readership, though he may also have engaged with Ottoman medical norms, which still leaned heavily on Galenic principles despite growing exposure to new medical theories. In this way, Mascellini occupied a unique position—working within a traditional framework while navigating a medical landscape on the cusp of gradual change.

Keywords: Early modern Ottomans, Giovanni Mascellini (1612-1675), Giovanni Domenico Sala (1579-1644), Sultan Mehmed IV (r. 1648-1687); Köprülü Fazıl Ahmed Pasha (d. 1676), Ottoman medicine

I. Introduction

A large spectrum of people with in-between or trans-imperial identities built cultural bridges between Europe and the Ottoman Empire throughout early modernity. Their religious or vocational background varied greatly: some of these

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figures were dragomans working at the European embassies in Istanbul or at the Porte, some were European converts helping transfer European cultural accumulation into the Ottoman Empire, and some were professionals with a specific set of technical knowledge. Within the latter category, medical doctors with European training were perhaps at the forefront.[1]

One of a number of Padua-trained physicians active in the seventeenth-century Ottoman Empire was Giovanni Mascellini of Pesaro (1612-1675), a recently celebrated figure of the early modern Ottoman medicine. Mascellini's only known medical work that made it to the print *Artis Medicae ... Summarium* (1673) has so far attracted attention due to its bilingual dedicatory pages, one in Latin and the other in Ottoman, which pointed to a clear link of patronage between the author and the Ottoman grand vizier at the time, Köprülü Fazıl Ahmed Pasha (1636-1676).[2] Mascellini is, after all, a rather singular figure in seventeenth century Ottoman medical history, who not only established contact with the uppermost political figures of the Ottoman administration as a foreigner, but also managed to get a medical treatise published during his lifetime, while living in the Ottoman Empire.

That *Artis Medicae ... Summarium*'s author was an Italian doctor practicing in the Ottoman Empire, writing in Latin, and that the dedication was to Fazıl Ahmed Pasha have led scholars to come up with interesting suggestions. For example, it has been remarked that the choice of Latin as the language of the treatise might perhaps be related to the popularisation of this language among the learned circles in the seventeenth century Ottoman Istanbul.[3] With similar curiosity, Mascellini has been presented as a practitioner of iatrochemistry,[4] the

[1] Rosita D'Amora, "Luigi Ferdinando Marsili, Hezârfenn and the Coffee: Texts, Documents and Translations", *Oriente Moderno* (2020): 106-119, p. 119; Heidrun Wurm, *Der osmanische Historiker Hüseyn b. Gafer genannt Hezarfenn, und die Istanbuler Gesellschaft in der Zweiten Hälfte des 17. Jahrhunderts*, Klaus Schwarz Verlag, 1971; E. Natalie Rothman, *The Dragoman Renaissance. Diplomatic Interpreters and the Routes of Orientalism*, Ithaca and London: Cornell UP, 2021. An earlier Turkish version of the present paper was prepared with the title "Padovalı İki Doktor ve On Yedinci Yüzyıl İlm-i Tıbbı: Giovanni Mascellini, Giovanni Domenico Sala ve *Artis Medicae Summarium* (1673)".

[2] Ioannes Mascellinus, *Artis medicae, quae continet methodum et praecepta universalia ad medicinam faciendam, summarium*, Vienna: Typis Michaelis Thurnmayer Universitatis Typographi, 1673. M. Fatih Çalışır, "An Italian Physician in the Service of the Ottomans: Giovanni Mascellini (1612-1675) and his *Artis Medicæ* (1673)", *Living in the Ottoman Lands: Identities, Administration and Warfare*, eds. Hacer Kılıçarslan, Ömer Faruk Can and Burhan Çağlar, İstanbul: Kronik, 2021, p. 253-267, on pp. 260-1, 267.

[3] Sara Nur Yıldız, "A Strange Affliction from Abroad: The Ottoman Chief Imperial Physician Ḥayātīzāde's Treatise on the Polish Plait (Plica Polonica)", *Intellectual History of the Islamicate World*, 11 (2023): 229–265, on p. 254-5.

[4] Harun Küçük, *Science without Leisure. Practical Naturalism in Istanbul, 1660-1732*, Pittsburgh: University of Pittsburgh Press, 2020, p. 146. Küçük builds his opinion on the fact that Mascellini's

medical approach strongly associated with Paracelsus. Such claims, however, indicate that Mascellini's work has actually never been examined in detail.

The present study will not do that either, but it will provide evidence that the work did not necessarily have any aspiration to appeal to any Ottoman audience. Furthermore, it will also manifest that an outright reference to Mascellini as a iatrochemistry practitioner could be tantamount to a hasty conclusion. In essence, it will seek to demonstrate that *Artis Medicae ... Summarium* was a work entrenched in the Paduan tradition, continuing its Latin-learning heritage and with an aim to summarise that tradition's teachings, and establishing a clear connection to the author's own university master, Giovanni Domenico Sala (d. 1644).

II. The Seventeenth Century Medicine and Giovanni Mascellini

In the first half of the sixteenth century, the Swiss reformer Theophrastus von Hohenheim (1493-1541, or *Paracelsus,* as he later came to be known) and his followers shook the foundations of the traditional Aristotelian-Galenic four-element medicine that placed bodily humours at the centre of their diagnoses and treatments. In the Paracelsian approach, chemistry gained importance instead: salt, sulphur and mercury, the so-called *prima tria*, eclipsed the four humours in treating illnesses. As is well known, this new Paracelsian medicine was named iatrochemistry due to its emphasis on the chemicals. In the sixteenth and seventeenth centuries, iatrochemistry gradually permeated into medical practice, but resistance to its teaching at the established medical institutions such as universities was prevalent. For instance, in Paris, adherents of iatrochemistry were prohibited from practicing and members of the Royal College (College de France) could call for a campaign to purge the city of iatrochemists in the 1640s.[5] Similarly, in Britain, Galenic medicine was considered indispensable generic education until 1640, with no considerable translation of Paracelsian texts until 1650.[6] The harsh treatment Malpighi experienced at the hands of the Galenists in Bologna as late as the 1660s also attests to the challenges faced by the new methods in medical teaching and practice.[7]

father-in-law, whom the Italian doctor must have met fairly later in life and years after he had completed his medical learning, was the Danish doctor Hans Andersen Skovgaard (1604-1656). Skovgaard had once been a student of Daniel Sennert (1572-1637), known for his eclectic recourse to Paracelsian methods.

[5] Allen Debus, "Chemistry and the Universities in the Seventeenth Century", *Estudos Avançados* 4-10 (1990): 173-196, p. 188.

[6] Charles Webster, *The Great Instauration. Science, Medicine and Reform, 1626-1660*, New York: Holmes & Meier, 1976, pp. 273-4.

[7] Owsei Temkin, *Galenism: Rise and Decline of a Medical Philosophy,* Ithaca and London: Cornell UP, 1973, p. 173.

In the Ottoman Empire, iatrochemistry approaches gained ground in the seventeenth century and studies over the last three decades establish a literature of medical translations from Paracelsian European sources into the Ottoman sphere: Natalia Bachour has demonstrated with a remarkable effort that the seventeenth century Ottoman court physician Salih bin Nasrullah (d. 1669, also known as Ibn-i Sellum) got Latin medical writings by Daniel Sennert and Oswald Crollius translated into Arabic.[8] Furthermore, figures like Ali Münşî (d. 1733) and Ömer Şifâî (d. 1746) produced works in the footsteps of Paracelsus and his new medicine (*tıbb-ı cedid,* as the Ottomans referred to it), too.[9] Not a man of medicine *per se*, even the Ottoman polymath Hezarfen Hüseyin Efendi (d. 1691) adopted the principles of Paracelsian medicine in his encyclopaedic work on medicine.[10] Nonetheless, scholars have also warned against assuming a wholesale shift to Paracelsian medicine in the seventeenth century Ottoman Empire by looking at such examples: for instance, it has been pointed out in accordance with Bachour's work that Salih bin Nasrullah's medical understanding was not pitting the new medicine against the older one, but rather that the new medicine was an area of knowledge that got integrated into the Galenic tradition.[11] Another view suggested that the "pre-existing epistemological trajectory" of Ottoman medicine in the seventeenth century was already ushering in a crisis "between empirically based medicine and the learned medical establishment", rendering the new medicine as one of the possible solutions.[12] And to further complicate the picture, a contemporary English observer of the Ottoman medicine made an outright reference to the non-Muslim Ottoman subjects with European education as "*Greeks* and *Jews*, who know nothing of chymical Medicines, but follow the usual methods, which they learnt in *Italy* and *Spain*, the former having studyed in *Padua*, and the latter in *Salamanca*."[13] In short, while iatrochemistry was making headways into traditional medicine among the seventeenth century Ottoman

[8] Natalia Bachour, *Oswaldus Crollius und Daniel Sennert im frühneuzeitlichen Istanbul: Studien zur Rezeption des Paracelsismus im Werk des osmanischen Artzes Ṣāliḥ b. Naṣrullāh ibn Sallūm al-Ḥalabī*, Freiburg: Centaurus Verlag & Media UG, 2015, pp. 374-5.

[9] Nil Sarı and M. Bedizel Zülfikar, "The Paracelsian Influence on Ottoman Medicine in the Seventeenth and Eighteenth Centuries," in *Transfer of Modern Science & Technology to The Muslim World. Proceedings of The International Symposium On "Modern Sciences and the Muslim World, (Istanbul 2-4 September 1987)* (ed. Ekmeleddin İhsanoğlu), İstanbul 1992, pp. 157-179; Necdet Okumuş, "Ömer Şifâî Efendi (ö. 1155/1742)", *Türkiye Diyanet Vakfı İslam Ansiklopedisi*, c. 34 (2007), pp. 82-83.

[10] Duygu Yıldırım, "*Bevanda Asiatic*a: Scholarly Exchanges between the Ottomans and Europeans on Coffee", *Osmanlı Araştırmaları Dergisi (JOS)*, 56 (2020): 25-47.

[11] Müstakim Arıcı and Esra Aksoy, "Tıbb-ı Cedîd Ne kadar Yenidir? Osmanlı Tıbbında Yenilik Tartışmaları ve Yeninin Mahiyeti (1650-1750)", *Osmanlı Bilimi Araştırmaları* 24-2 (2023): 841-876, on p. 854.

[12] Duygu Yıldırım, "Back to the future: a belated history of 'new' science in the Ottoman Empire", *BJHS Themes* 9 (2024), 169–182. https://doi.org/10.1017/bjt.2024.9" On pp. 176-7.

[13] Thomas Smith, "An Account of the City of Prusa in Bithynia, and a Continuation of the Historical Observations Relating to Constantinople, by the Reverend and Learned Tho. Smith D. D. Fellow of Magd. Coll. Oxon. and of the Royal Society", *Philosophical Transactions (1683-1775)*, vol. 14 (1684): 431-454, on p. 437.

medical circles, it is safe to assume that a variety of approaches were current at the time, applied by a variety of medical practitioners.

Among the doctors earning their living in the Ottoman Empire, there were not only Muslim court physicians, but also foreign or non-Muslim medical practitioners who rose to success and attracted the Ottoman elite's attention. Giovanni Mascellini from Pesaro is relatively a well-known figure in the latter category. Biographical studies on Mascellini's (also Marselin or Marcellin) life provide us with enough of information regarding his life trajectory. Born in Pesaro in the early years of the seventeenth century, Mascellini obtained his degree in 1637 at Padua University, the centre of medical learning in southern Europe at the time. He later became a physician in eastern Europe, working first for the Venetian embassy in Istanbul, then primarily at the courts of certain Wallachian princes, and, during the latter phase of his life, at the Ottoman court.[14] Instead of highlighting Mascellini's life, however, it is more sensible to contextualise the medical tradition in Padua.

Founded in 1222, the university of the city enjoyed two "golden ages" of medical awakening throughout the early modern period: first between 1475 and 1509, and the second between 1530 and 1610. While the former period was marked by a "rediscovery of classical texts, in particular the inductive method of Aristotle and the medicine of Galen based on anatomy and humoral theory", the latter was conspicuous for the revision of Galenic anatomy by a number of scholars, the pioneer of whom was doubtlessly Andreas Vesalius (1514-1564).[15] In all likelihood, therefore, professors educated during this second golden age must have instructed Mascellini. At the time of Mascellini's graduation from Padua, at the very least, renowned anatomists such as Johannes Wesling (1598-1649) and Johann Georg Wirsung (1589-1643) were active at the university,[16] while Benedetto Silvatico (1575-1658) was teaching practical medicine[17], and Ioannis Kottounios (Cottunius, 1577-1658) was delivering philosophy classes.[18]

[14] Studies particularly focusing on Mascellini's biography are firstly Nicolae Vătămanu, "Contribution à l'étude de la vie et de l'œuvre de Giovanni Mascellini, médecin et secrétaire princier", *Revue des études sud-est Européennes*, 16/2 (1978): 269–288; and then M. Fatih Çalışır, "An Italian Physician in the Service of the Ottomans: Giovanni Mascellini (1612-1675) and his *Artis Medicæ* (1673).

[15] Fabio Zampieri and Alberto Zanatta, "Medical History in Italy: the University of Padua Medical School", *Medical Humanities: Italian Perspective*, eds. Luciana Caenazzo, Lucia Mariani and Renzo Pegoraro, Cleup, 2015, 31-41, on p. 32-35.

[16] A. Porzionato, V. Macchi, C. Stecco, A. Parenti, and R. De Caro, "The Anatomical School of Padua", *The Anatomical Record*, 295-6 (2012): 902-916. https://doi.org/10.1002/ar.22460.

[17] Reid Barbour, *Sir Thomas Browne: A Life*, Oxford: Oxford University Press, 2013, p. 162; Giacomo Filippo Tomasini, *Gymnasium Patavinum Iacobi Philippi Tomasini Episcopi Aemoniensis Libris V. comprehensum*, Udine: Nicolai Schiratti, 1654, p. 299. Alternative spellings for Silvatico are Benedictus Silvaticus, Sylvaticus or Selvatico.

[18] Tomasini, *Gymnasium Patavinum,* p. 319. On this figure, see also Harun Küçük, "Natural Philosophy and Politics in the Eighteenth Century: Esad of Ioannina at the Ottoman Court", *Osmanlı Araştırmaları*, 41 (2013): 125-158.

Anatomy aside, the Paduan tradition seems to have continued and improved the Galenic understanding of medicine (e.g., in dealing with sicknesses) in general. That is to say, the influence of Paracelsus did not find as widespread acceptance at Padua in the first half of the seventeenth century as it did in the north of the Alps, as discussed above. As Alfonso Cossa expressly noted, "Paracelsus' theories of iatrochemistry could be defended quite later in Italy than in any other place, and there [in Italy], proud opponents were present in the universities, especially in Padua". Padua was a place, after all, where medical works could be titled "Refutation of the New Medicine and Chemistry" or "Method of … Medication-making against the Chemicals" at the turn of the seventeenth century.[19] Paracelsian works, for being associated with Protestantism, were put in the famous *Index* of prohibited books, and hence, the first Italian translation of Paracelsian writings appeared as late as 1644.[20] Accordingly, it would be surprising to trace any definitive allusion to iatrochemistry during Mascellini's formative years at the university. And there is no better way to deliberate it than to go through his own work.

III. The Preface to *Artis Medicae … Summarium*

The views on Mascellini and his understanding of medicine notwithstanding, his work *Artis Medicae ... Summarium* (or shortly, *Artis Medicae*) has actually not been subjected to scholarly examination, save for its bilingual dedication. In other words, opinions or generalisations about Mascellini or his *Artis Medicae* do not rely on the scrutiny of the Paduan physician's works. It is only the earliest self-standing study on Mascellini's biography that actually deals with his work *Artis Medicae*, although rather concisely: Vătămanu makes a brief evaluation of the medical treatise in his 1978 article, and perhaps rightfully, does not speak highly of its quality. Apart from being the first (and the last), his remarks are also important in sketching the cultural framework the work was produced in.[21] At this point, it would be helpful to provide a full translation of Vătămanu's assessment of *Artis Medicae*:

[19] Alfonso Cossa, *Angelo Sala, medico e chimico Vicentino del secolo XVII°*, Vicenza: Tipografia Paroni, 1894, p. 22. The examples are provided by Cossa: Andreas Grutinius (Gratiani), *Solus philosophus, seu novae medicinae et chemiae compendiosa refutatio*, Padova 1591; and Giovanni Colle (a Belluno), *Methodus facile parandi iucunda, tuta, et nova medicamenta et eius applicatio adversus chemicos,* Padova, 1628.

[20] Antonio Clericuzio, "Chemical Medicine and Paracelsianism in Italy, 1550-1650", in *The Practice of Reform in Health, Medicine, and Science, 1500—2000: Essays for Charles Webster* (eds. Margaret Pelling and Scott Mandelbrote), London and New York: Routledge, 2017, 59-80, on pp. 60, 77. Clericuzio's article is a convincing study of how Paracelsian ideas took hold of in the Italian geography in general in the first half of the seventeenth century. However, he still fails to name any Paduan Medicine School professor who were influenced by Paracelsus or iatrochemistry.

[21] Vătămanu, "Contribution à l'étude de la vie et de l'œuvre de Giovanni Mascellini".

> "The printed opuscule consists of a compilation as was the case with a great number of others at the time. Frankly, it is not a scientific work, but rather an essay to popularise the possibilities of medicine and of sanitary education. The author [Mascellini] conveys his personal observations emanating from a long experience, while also evoking the experiences of his predecessors, starting from Hippocrates and Galen up to Ioannes Domenicus Sala, to whom he had been a student at Padua.
>
> [Mascellini's] own points of view regarding diverse classical treatments are not short of a certain touch of novelty (*fraîcheur et renouveau*), although their presence within the coverage of the work is quite meagre. This thin volume with brilliant dedications was rather meant to satisfy the grand vizier's pride and praise his grandeur, and was allowing Mascellini to pursue his activities within the marvellous conditions he managed to find himself."[22]

The comment by Vătămanu is illuminating in many respects: firstly, *Artis Medicae* was not an original work but a compilation of medical treatises. In that respect, Vătămanu continues, many other authors also got similar compilations published at the time. Mascellini's primary motivation, Vătămanu suggests, was to further entrench his favourable position at the Ottoman court by flattering grand vizier Köprülü Fazıl Ahmed Pasha. In terms of the work's medical content, Vătămanu notes, Mascellini felt himself obliged to refer to the colossal figures of the field (Hippocrates and Galen). This is an important point: instead of attacking them on the grounds of any recently flourishing trend of new medicine/iatrochemistry as would perhaps be the popular course of action among some contemporary circles of medicine outside of Italy, Mascellini highlights the Galenic tradition. And Vătămanu's reference to Mascellini's professor at Padua, Giovanni Domenico Sala (1579-1644), calls for further attention.

A quick browsing of Mascellini's 83-page-long work reveals that he referred to his master in the preface, where Vătămanu must have come across his name. For the sake of clarification, it would be useful to provide a full translation of the *Præfatio*:

> "May nobody think that I assert myself as the author of this booklet, because I confess to have gathered almost the entire material and guidance from the works of my most erudite Preceptor Giovanni Domenico Sala of Padua. The order having not been altered to any extent, however, I only left out many trivial things and shortened the teachings of the Art [of medicine] into a Summary, so that only the Method and Art of Medicine should be revealed and should shine

[22] Vătămanu, "Contribution à l'étude de la vie et de l'œuvre de Giovanni Mascellini", p. 276.

> upon everyone with a unique view and without any embellishments. I deemed it would be agreeable to the practitioners of Medicine who do not have time to read massive books while exercising the heavy duty of the Art of medicine, and useful to the novices of Medicine who are confused at first under the sizeable burden of books.
>
> I also confess that this Art and Method were transferred by numerous Learned Physicians through various formulae, and can even now be arranged in various ways: indeed, a Medical Textbook[23] of this sort is not necessary by the Nature of thing, since it can [still] contain the same precepts when arranged in different fashions. But Giovanni Domenico Sala Textbook is seen to conform with the Nature of the thing and the regular Arrangement so greatly that it was preferred by us to other Treatises of the Method of healing."[24]

As declared by Mascellini himself, *Artis Medicae* is designed as the condensed version of some earlier works, penned mostly by Padua University Professor Domenico Sala. At this point, it must attract attention that the title of Mascellini's work does already present itself as the essence of what it expounds in its Preface: *Artis medicae*, quae continet methodum et praecepta universalia ad medicinam faciendam, *summarium*, or in short, *Artis medicae ... summarium*. So the cover of the booklet itself claims to be a *summary* of earlier works on the art of medicine.

What was, then, Mascellini's treaties the summary of? His master, Giovanni Domenico Sala, was a patrician from Padua, serving for thirty six years at the university: he held the chair of medical theory firstly in the extraordinary position between 1607 and 1632, and then, in that of ordinary until his death.[25] As the instructor of ordinary medical theory, he was delivering the most prestigious course in the curriculum in the first two morning hours throughout the

[23] *Medica Institutio* in the text.

[24] Ioannes Mascellinus, *Artis medicae, ..., summarium*, pp. 5-6. For the first page of the preface, see Appendix II.

[25] Between 1607 and 1613, Sala had the extraordinary position *secundo loco*, and thereafter *primo loco*; the ordinary position he held after 1632[3] *secundo loco*, but the *primo loco* was vacant anyway during his tenure, making him the only one teaching in the ordinary until his death in 1644. Tomasini, *Gymnasium Patavinum*, pp. 293-4, 296, 311-2; Nicolaus Comnenus Papadopolus, *Nicolai Comneni Papadopoli Historia Gymnasii Patavini Post ea, quae hactenus de illo scripta sunt, ad haec nostra tempora pleniùs [et] emendatiùs deducta*…, vol 1, Venice: Sebastian Coleti, 1726, pp. 364-365. Apart from Tomasini's work, the following brief piece effectively summarises the early modern structure of the medicine school in Padua, see Fabio Zampieri, A. Zanatta, M. Elmaghawry, M.R. Bonati, G.Thiene, "Origin and development of modern medicine at the University of Padua and the role of the "Serenissima" Republic of Venice", *Global Cardiology Science & Practice* (2013-2): 149-62, pp. 151-152.

three-year-long medical education.[26] He had penned a few works and managed to get them published in Padua in the first three decades of the seventeenth century. The most popular among those was his 1628 book on healthy eating, *De alimentis et eorum recta administratione liber* (Padua, 1628). In the same year, another book was published under the title "Booklet on the Nature of Medicine" (*De natura medicinae libellus*). But what Mascellini refers to as Sala's *(Medica) Institutio* (medical textbook) must have been *Ars medica in qua methodus et praecepta omnia medicinae curatricis et conservatricis explicantur* (Padua, 1614), or shortly, *Ars Medica*, which made it to print for four times in 1614, 1620 (Venice), 1641 and 1659.[27] Sala is known to have employed this "strongly Galenic" textbook in his courses during the 1630s, that is to say, when Mascellini was a student at Padua,[28] and his course is also described as "Galen's theory" by a student who had been there a decade earlier than Mascellini.[29] In short, Mascellini aimed at summarising Sala's Galenic legacy by paying homage to his late master's *Ars Medica*.[30]

The name in itself, obviously, was not coined by Domenico Sala. In 1607, a Scott named Duncan Liddell had also published an *Ars Medica* (*Succincte & perspicue Explicata*).[31] When Cornelius Celsus' (25 BC-50 AD) works had been edited and printed in the sixteenth century, one of the volumes carried *Arte Medica* in its title: *Aurelii Cornelij Celsi de arte Medica libri octo* (Aurelius Cornelius Celsus' Eight Books on the Art of Medicine).[32] And even earlier, a portion of Galen's legacy had come to be known as *Ars Medica* (Gr. *Technē*

[26] Regina Andrés Rebollo, "The Paduan School of Medicine: medicine and philosophy in the modern era", *História, Ciências, Saúde – Manguinhos*, (tr. by Derrick Philips), Rio de Janeiro, v. 17, n. 2, (Apr.-June 2010): 307-331, p. 311 (see the section "The medical curriculum and the courses offered").

[27] August Hirsch (and redactor E. Gurlt), *Biographisches lexikon der hervorragenden aerzte aller zeiten und völker, Band 5*, Wien & Leipzig: Urban & Schwarzenberg, 1887, p. 150.

[28] Barbour, *Sir Thomas Browne*, p. 164.

[29] Alicja Bielak, "On the Margins of Paduan Medical Lectures: Self-reflection and Critical Attitude in the Notes of Jan Brożek (1585–1652)", *History of Universities*, Vol. XXXVI/I (2023): 57-98. A surviving text by Sala offered to students was similarly touched by his Galenic concern, the medical part being "limited to a discussion of a phrase from Galen's *Ars parva*", see Michael Stolberg, *Learned Physicians and Everyday Medical Practice in the Renaissance*, (tr. by Logan Kennedy and Leonhard Unglaub), Berlin-Boston: De Gruyter-Oldenburg, 2022, p. 83 (fn 418).

[30] In a study (in Romanian) regarding the replacement of Mascellini's tombstone late in the nineteenth century, Mihaela D. Liuşnea informs us about the connection between Domenico Sala and Mascellini without referring to the preface of *Artis Medicae … Summarium*, but via a manuscript in Biblioteca Oliveriana, see Mihaela Denisia Liuşnea, "Partenie, Episcopul Dunarii de Jos şi V.A. Urechia – Pionieri în Activitatea de Conservare a Patrimoniului Istoric la Galati" *Analele Teologie şi Educatie la Dunarea de Jos*, vol. XIV (2015), Editura Arhiepiscopiei Dunarii de Jos Galati, 364-372, p. 368.

[31] Duncan Liddel, *Ars Medica, Succincte & perspicue Explicata*, Hamburg: Frobenius, 1607.

[32] Guillaume Patin (Tielt) (ed.), *Aurelii Cornelij Celsi de arte Medica libri octo: multis in Locis iam emendatiores longè, quàm unquam antea, editi*, Basil: Ioannes Oporinus, 1552.

iatrikē) throughout the medieval era, too.[33] That is to say, when Mascellini named his work *Artis Medicae ... Summarium*, he was continuing the traditional Latin medical literature, most of which was edified on a Galenic premise.[34]

Mascellini's aspiration to his master's fame (or at least his homage to Sala's works) presented itself perhaps in another subject, that of the plague, which is, however, harder to track: Vătămanu informs us that apart from *Artis Medicae ... Summarium*, Mascellini authored another treatise, while he was in the company of Sultan Mehmed IV himself. It was produced in late 1673, but never made it to print. Not focusing on medical theory, this more practical work by Mascellini was titled *Inanis et verae preservationis a peste apologia*, a book for health preservation against the plague.[35] Interestingly, in the *Biografia degli scrittori padovani*, the compiler informs us that among the printed books by Giovanni Domenico Sala, there were a few treatises in Italian, though without bearing Sala's name. One of these was titled *Preservazione dalla peste di un medico Padovano, con Lettera dello stampatore* (Padova: Martini, 1630), that is, a Paduan physician's book on preservation against the plague. That this work was printed for a second time in that very year must obviously be related to the ravaging 1630 plague in Italy.[36] Since there is no author name, it is hard to say on what account this work was attributed to Sala. However, if *Preservazione dalla peste* is indeed Sala's, Mascellini might have once more continued his master's tradition in another work (*Inanis et verae preservationis a peste*).

Now turning to the printed work available at hand, one can remark that Sala's and Mascellini's works carry a conspicuous imprint of Galenic medicine, starting from their earlier pages onwards. In the *Praefatio* of Sala's second edition of *Ars Medica*, he quite conventionally refers to the three *instrumenta medica*, namely surgery, pharmacy and diet.[37] Similarly, Mascellini's third chapter (*De instrumentis*) also enumerates surgery, pharmacy and diet as the instruments of any physician.[38] But apart from these medical tropes, Mascellini's summarisation

[33] Véronique Boudon, "L'"Ars Medica" de Galen est-il un traité authentique?", *Revue Des Études Grecques,* vol. 109, no. 1, (1996): 111–56.

[34] Apart from the titles cited above, Nicolaus Commenus Papadapolus also counts a *Commentaries on Galen's Ars Parva* among Sala's works (without publication date), further corroborating the argument that Sala was an adherent of Galen, see again his *Historia Gymnasii Patavini, Vol. I,* p. 365.

[35] Vătămanu, "Contribution à l'étude de la vie et de l'œuvre de Giovanni Mascellini", p. 276; Çalışır, "An Italian Physician", p. 259. In the related catalogue, the title reads "Inanis et verae praeservationis a peste Apologia, auctore Jo. Mascellino Pisaurensi Medico doctore ecc. (Adrianopoli, 20 X[Decem]bris, 1673)". It is Manuscript 468/28 at Biblioteca Oliveriana (Ms. Oliv. 468/28), see Albano Sorbelli, *Inventari dei Manoscritti delle Biblioteche d'Italia, vol. XLII: Pesaro*, Firenze: Leo S. Olschki, 1929, p. 26.

[36] Giuseppe Vedova, *Biografia degli scrittori padovani, vol. 2,* Padova: Minerva, 1836, p. 193.

[37] Ioannes Domenicus Sala, *Ars medica in qua methodus et praecepta omnia medicinae curatricis et conservatricis explicantur,* Padua: Francesco Bolzette, 1641, p. 5.

[38] Ioannes Mascellinus, *Artis medicae, ..., summarium*, p .12.

of his master's work can be more directly pinpointed, for example, in the passages he rephrases Sala's description of the locations in the body, where humours could be taken out of the organism, a prominent feature of Galenic medical treatment. Among the paragraphs where Mascellini discusses how to locate the internal parts of the body for extraction, he notes:

> "There are also the parts that have their own locations [for extraction]: the brain has palate, nostril, ears and eyes. Chest is purged often through the mouth and sometimes by *sedes* and the bladder, as in empyema…"[39]

The excerpt above, as will be noticed, is an abridged paraphrase from Domenico Sala's *Ars Medica*:

> "These singular parts, however, have their own locations by nature: the brain [has] firstly the palate, then nostrils, and then ears, and thereafter the eyes, but Gal[en] adds that sometimes only the palate, because it obviously has a passage destined for such a purge, while urging that other places are not inappropriate in case of necessity; the chest is purged often through the mouth, for, there, the way opens to the windpipe, and rarely through the bowels and bladder, as we experience in the Empyema…"[40]

So, both Sala and his pupil Mascellini continued to follow the Galenic tradition as the examples can be multiplied through a more comprehensive browsing of the works produced by both authors. Furthermore, searching through the *Artis Medicae … Summarium* does not yield any reference to either the name of Paracelsus or that of any related iatrochemistry practitioner. But to write a medical treatise is, understandably, showcasing one's official and theoretical attitude toward the matter at hand, while his exercise could diverge from that official attitude. That is to say, to reach a more encompassing conclusion, one must also rule out the possibility that Mascellini might have adopted a different medical method in the actual practice of his trade. Hence, to gauge Mascellini's understanding of medicine more accurately, one has to go through his other discourses, too.

IV. Personality Descriptions by Mascellini

It is by examining Mascellini's descriptions of certain individuals belonging to the Ottoman ruling elite that one can also catch glimpses of how he approached his patients. Of course, the challenges of coming across self-narratives in the seventeenth century Ottoman Empire or hearing the voices of

[39] Ioannes Mascellinus, *Artis medicae, …, summarium*, p. 62.
[40] Ioannes Domenicus Sala, *Ars medica*, 261.

individuals like Mascellini living in that period are undeniable. But luckily, there are a few contemporary accounts that offer us a view on his medical assessments.

The first of these is put into paper by Mascellini himself. As he was closely associated with foreign embassies in Istanbul at the time, Mascellini wrote a concise account of the Ottoman political structure, not unlike an intelligence report. His *Relatione dell'ottomano imperio nel presenta stato in que[s]to anno 1668*, addressed to the Duke of Tuscany and published by Vătămanu, starts with the portrayal of the Ottoman monarch, Sultan Mehmed IV (r. 1648-1687). While presenting the sultan's physical and character traits, Mascellini makes the following observation:

> "Presently reigns the twenty-seven-year-old Sultan Mehmed IV, in the seventeenth year of his rule: he is of a rather tall stature, brunette skin, with still only a little hair in the beard; has a long face and has recently acquired a stately look. He has an *atrabilious melancholic temperament*, which renders his legs feeble and varicose, and disinterested in sleep, always inciting him to hunting, [and to] riding[,] so he can not stand still at a single location; he is of a rather Saturnine character than Venusian..."[41]

In explaining the sultan's well-known inclination for hunting, Mascellini regards it appropriate to attribute this penchant to an excessive secretion of black bile. This allegedly causes, as is well-known, melancholy, which in turn, Mascellini believes, triggers complications in the sultan's bodily health, such as swollen legs and insomnia. So, associating the sultan's enthusiasm for hunting with humoral causes is a Galenic attribution by Mascellini.

Another client of Mascellini's was Crimean Khan Selim Giray (r. 1671-78), whom the Italian healer got the chance to meet (and cure) in 1674 during the Ottoman-Polish military clashes following the conquest of Kamaniecs-Podolsk in 1672. In a letter he wrote to the English representative (consul) at Izmir, Paul Rycaut, Mascellini expressed his diagnosis on the khan: "a Hypochondriacal Melancholy". Thereafter, Mascellini shared his proffered treatment method for the khan, which was "to divert his mind with the thoughts of War: which counsel having taken, after thirty days abode in the Camp, [the khan] found himself much more chearful than before, and greatly relieved of that pressure of Melancholy and caliginous Vapours which offended his Brain".[42] Similar to Sultan Mehmed

[41] Vătămanu, "Contribution à l'étude de la vie et de l'œuvre de Giovanni Mascellini", pp. 275, 280. Emphasis in the quotation is mine. Sultan Mehmed was at the twentieth year of his reign at the time.

[42] Paul Rycaut, *The History of the Turkish Empire, From the Year 1623, to the Year 1677…,* London: Thomas Basset, R. Clavell, J. Robinson, A. Churchill, 1687, p. 240.

IV's condition, Mascellini associates a humoral disease with a physical activity as its relief.

The third historical individual Mascellini professionally observed was his patron, Köprülü Fazıl Ahmed Pasha. It is, however, by French traveller/collector/orientalist Antoine Galland that we learn how Mascellini described Ahmed Pasha. In April 1672, Galland remarked that when Mascellini visited the French embassy:

> "He also told His Excellency [ambassador] that the Grand Seignior seemed to have retired from hunting, having not exercised it for the last six weeks. He added that this did not please the Grand Vizier, who, due to his melancholy, often entertained himself by taking the opportunity to accompany the Grand Seignior during the hunts."[43]

Once again, in analysing the grand vizier's character, Mascellini shapes his opinion around the humoral axis, melancholy being the illness the vizier was diagnosed with from the first moment they met during the siege of Candia.[44] Unfortunately, further observations by the physician are as yet lacking. But, in all fairness and perchance contrary to the argument of the present contribution, Galland presents us also with an instance that could perhaps hint at a possible Paracelsian inclination in Mascellini's medical practice. In 1673, when Fazıl Ahmed Pasha asked for medical assistance to comfort himself (*se faire purger*), Mascellini was at work to prepare a medication, "a mixture of senna (*sené*), cream of tartar (*crême de tartre*), and …, and rose". The reference to the cream of tartar (potassium bitartrate) may suggest that iatrochemistry might have been at play in the preparation of the cure. Nevertheless, distilled ingredients such as cream of tartar had already been a part of the pharmacopeia since the late Middle Ages.[45] Furthermore, in that instance, Mascellini was not alone during the preparation: two other Padua-trained physicians, Alexandros Mavrocordatos (1641-1709) and Demetrios Cigala (1630-1681) were also present at that moment, making it hard to decide if it was Mascellini or the other doctors who included the cream of tartar in the recipe.[46] But even when one opts for the former possibility, it can still be

[43] Antoine Galland, *Journal d'Antoine Galland pendant son sejour à Constantinople (1672-1673)*, v. 1, Paris: E. Leroux, 1881, p. 108.

[44] Thomas Smith, "An Account of the City of Prusa in Bithynia", p. 437: "During the tedious siege of Candia, the *Vizir*, what with melancholy, and what with the ill air of the Camp, finding himself much indisposd sent for a *Christian* Physician *Signor Massalini*".

[45] Küçük, *Science without leisure*, pp. 146, 271; Bachour, *Oswaldus Crollius und Daniel Sennert*, p. 87.

[46] Galland, *Journal d'Antoine Galland*, v. 2, p. 74; Vătămanu, "Contribution", p. 274; While Mavrocordatos is a well-known figure as the later court dragoman, one can look through the following work for Demetrios Cigala (Kigalas): Margarita Voulgaropoulou, "Orthodox Confession-Building and the Greek Church Between Protestantism and Catholicism: The Mission of Marquis Nointel to the Levant (1670–1673)", in *Entangled Confessionalizations? Dialogic Perspectives on Community- and Confession-Building Initiatives in the Ottoman Empire, 15th-18th Centuries*, eds. Tijana Krstic and

claimed that Mascellini was trying to find a middle way between Galenic and Paracelsian medicine as was common with seventeenth century Ottoman practitioners, as shown above. And, leaving this dubious point aside, it is apparent that both in his treatises and in his medical observations, Mascellini adheres to Galenic medicine. If there was any deviation in his practice, this is best explained by a gradual acceptance of Paracelsian methods and not by a wholesale adaptation of iatrochemistry in general, similar to the Ottoman Muslim court physicians.

V. Conclusion

Cultural intermediaries in the seventeenth century Ottoman Empire have become a prolific aspect of Ottoman historiography, with new studies emerging day-in and day-out to show how often the East-West divide could be crossed. Despite the surge of interest in such personalities, however, there is still some mileage to cover, especially with regard to contemporary primary material: Giovanni Mascellini's evidence-based existence as a historical personality notwithstanding, the work he produced somehow managed to escape scholarly attention. This contribution, therefore, tried to argue that Giovanni Mascellini's printed treatise, *Artis Medicae ... Summarium* must be studied with its link to the physician's master at Padua, Giovanni Domenico Sala. Mascellini's work, as the author himself admitted, was not so much an original piece as it was a summary of earlier studies, namely Domenico Sala's *Ars Medica*. Both the choice of title and the content of the text hint at the continuation of the Galenic-Latin tradition current at the University of Padua in the early seventeenth century, while Paracelsian medicine was only slowly gaining ground, especially in southern Europe.

That Padua was a centre of medical education in the seventeenth century and that it was a time of burgeoning Paracelsian medicine in Europe were not necessarily related, as Mascellini's case sets forth. Both the physician's theoretical writings (*Artis Medicae ... Summarium*) and his more practical observations (on Sultan Mehmed IV and Fazıl Ahmed Pasha) are heavily influenced by the Galenic tradition. Under such circumstances, it would perhaps be more convincing to argue that why Mascellini chose Latin as the language of his treatise was because it was *the* language of instruction he learned his trade in at Padua as a youth; and he understandably tried to carry forth that legacy. Given that early modern Ottoman medical writing was at the time undergoing a localisation (changing from Arabic, Islamic science's mainstream language, to

Derin Terzioğlu, Piscataway, NJ: Gorgias Press, 2022, 521-562, on p. 531; Émile Legrand, *Bibliographie Hellénique, ou description raisonnée des ouvrages publiés par des Grecs au dix-septième siècle*, *t.3*, Paris, 1895, p. 339.

Ottoman Turkish),[47] one would expect to find no more Latin readers in the second half of the seventeenth century -to which Mascellini might have hoped to appeal- than before.[48] Accordingly, it seems more probable that Mascellini's intended audience was at least a portion of the European medical literati rather than the Ottomans themselves.

Similarly, labelling Mascellini as a iatrochemistry practitioner would be incompatible with his writings and words. The education he received, his published treatise and his medical observations were all strongly shaped by his generic Paduan education, relying heavily on Galen. What we do not know for certain is if Mascellini did learn and apply methods of new medicine in the Ottoman Empire, after his formative years at Padua. After all, the prospects of medical occupation in the Ottoman Empire were not so much welcoming for those interested merely in medical theory and knowledge production, as there were no universities paying decent salaries to offer such a leisure. As a result, Ottoman healers had to be engaged more in bedside practice than nonproductive medical labour.[49] In short, against the backdrop of a practice-based environment among the Ottomans, a great deal more information relating to Mascellini's medical practice (that is, his treatments of the patients) would help us understand the actual influence the new medicine had on him, something the extant sources do not provide us with. One can therefore at least say, as others have done before, that the Paracelsian medicine was not the new medical course for Mascellini, but a slowly developing discipline at best, making its way into the Galenic one.

Apparently, the present study did not delve into *Artis Medicae ... Summarium* much deeper than its preface. Hence, it is short of making a thorough assessment of either Mascellini's or Sala's medical legacy, and of the connection between them. Further endeavours on Mascellini's life and works would definitely enhance our knowledge of his medical approach and of the early modern attitudes toward both the traditional and new medicine.

[47] Miri Shefer-Mossensohn, *Ottoman Medicine. Healing and Medical Institutions, 1500-1700*, New York: SUNY Press, 2009, pp. 184-5.

[48] It seems that novel studies are likely to further contribute to Shefer-Mossensohn's localisation argument. For instance, a newly conducted study focuses on the Arabic translation (in Syriac alphabet, the so-called Garshuni) of an Italian treatise produced after the middle of the seventeenth century, which may also reinforce her suggestion by pointing out that in the Ottoman provinces, too, the European books were translated into local languages. Hence, the trend was not to produce in any European language. See Kadir Çelik, *Domenico Auda'nın "Breve Compendio di Maravigliosi Secreti" Adlı Eserinin Garşûnî Tercümesi ve Osmanlı Lübnan'ında Tıbbî Bilginin Dolaşımı*, Unpublished MA Thesis, Istanbul Medeniyet University, 2025.

[49] Küçük, *Science without leisure*, pp. 224-230.

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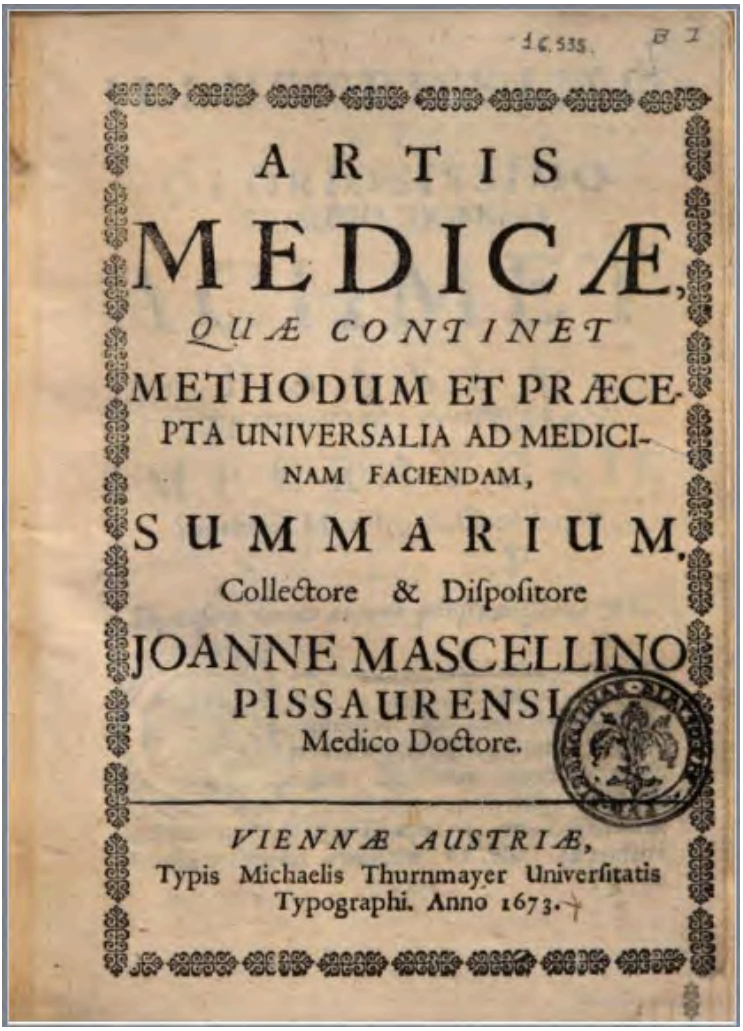
Appendix 1: Title page of *Artis Medicae … Summarium* by Mascellini

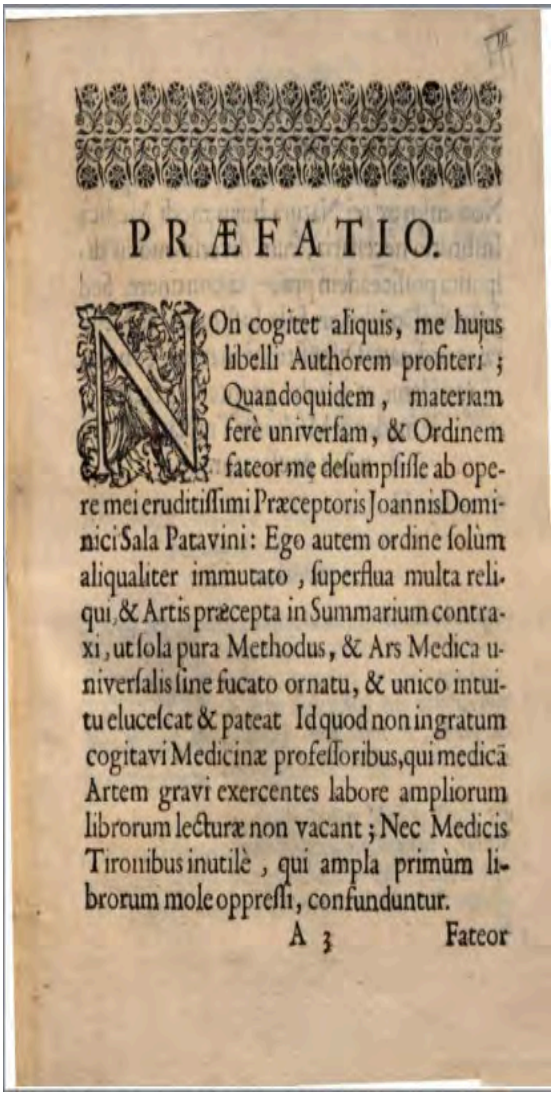


1 C 535. B 1

ARTIS
MEDICÆ,
QUÆ CONTINET
METHODUM ET PRÆCEPTA UNIVERSALIA AD MEDICINAM FACIENDAM,
SUMMARIUM,
Collectore & Disposítore
JOANNE MASCELLINO
PISSAURENSI
Medico Doctore.

VIENNÆ AUSTRIÆ,
Typis Michaelis Thurnmayer Universitatis
Typographi. Anno 1673.

Appendix 2: First page of the preface, *Artis Medicae … Summarium*



PRÆFATIO.

NOn cogitet aliquis, me hujus libelli Authorem profiteri ; Quandoquidem, materiam ferè univerſam, & Ordinem fateor me deſumpſiſſe ab opere mei eruditiſſimi Præceptoris Joannis Dominici Sala Patavini: Ego autem ordine ſolùm aliqualiter immutato, ſuperflua multa reliqui, & Artis præcepta in Summarium contraxi, ut ſola pura Methodus, & Ars Medica univerſalis ſine fucato ornatu, & unico intuitu eluceſcat & pateat Id quod non ingratum cogitavi Medicinæ profeſſoribus, qui medicā Artem gravi exercentes labore ampliorum librorum lecturæ non vacant ; Nec Medicis Tironibus inutilè, qui ampla primùm librorum mole oppreſſi, confunduntur.

A 3 Fateor

Appendix 3: Title page of *Ars Medica* … by Sala

ARS MEDICA

IO. DOMINICI

Sala Patauini,

IN QVA

Methodus, & Præcepta omnia Medicinæ curatricis, & conſeruatricis explicantur,

In hac ſecunda Editione aucta, correcta, addito Indice rerum memorabilium.

PATAVII, M. D. C. XLI.

Apud Franciſcum Bolzetta.

Ex Typographia Io. Baptiſtæ Paſquati. *Sup. Perm. ſſ.*

An Analysis of the 18th-Century Ottoman Plague Treatise: Müstakimzade and His *Cihâzu'l-Ma'cûn fî Halâsi't-Tâ'ûn*

Okan BÜYÜKTAPU*

Abstract

This study provides an analysis of an unpublished Ottoman treatise, *Cihâzu'l-Ma'cûn fî Halâsi't-Tâ'ûn* (The Apparatus of the Concoction for Salvation from the Plague), written in 1780 by Müstakimzade Süleyman Sâdeddin. The study examines his plague treatise in three fundamental contexts: the historical background of the18th-century plague epidemics during which the work was written; the literary tradition of plague treatises that developed in the Islamic world; and the treatise's intellectual framework alongside the life of Müstakimzade. Although the treatise's title suggests a medical text, the manuscript primarily presents a holistic approach that emphasizes the healing power of prayer. Müstakimzade's methodology combines the divine with the practical. On the one hand, it involves spiritual protection methods such as prayers that meet twelve specific conditions like purification and repentance, the recitation of selected Quranic verses, and the invocation of God's divine names. On the other hand, it includes folkloric traditions and protective objects, such as using ruby rings and elephant bones, and keeping pigeons to repel jinn, who were believed to be linked to the plague. This is complemented by medical and dietary advice, including the consumption of quince sherbet, vinegar-based dishes, and the application of violet oil. This study argues that the work reflects a syncretic worldview, embodying the intellectual climate of the 18th-century Ottoman Empire by combining faith, medicine, and tradition into a multi-layered, coherent defence mechanism against the plague.

Keywords: Ottoman Medicine, Müstakimzade, Plague Treatise, Esoteric Knowledge, 18th Century.

I. Introduction

Composed in 1780 (1194 AH), shortly after one of the most devastating plague outbreaks of the period, *Cihâzu'l-Ma'cûn* reflects the era's attempts to

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reconcile medical practice with spiritual understanding. Although the title appears to signal a pharmacological treatise, combining *ma'cûn* (concoction) with *halâs* (salvation), the work is better understood as a reflection on the healing power of prayer. Rather than offering strictly medical guidance, it presents a holistic approach to confronting the epidemic, blending physical remedies with spiritual intervention. Belonging to the genre of plague treatises which flourished in the Islamic world after the Black Death, this text exemplifies the genre's typical tripartite structure: theological reflection, traditional medical advice, and practical talismanic prescriptions. Written in the wake of the 1778 plague in Istanbul, the treatise reveals how an Ottoman intellectual envisioned a multi-faceted response to disease, where spiritual devotion, medical treatment, and protective charms coexisted as mutually reinforcing strategies.

The 18th century was a period marked by major plague epidemics across the vast territories of the Ottoman Empire. The decade from 1778 to 1787, in particular, serves as an exemplary period for understanding the devastating impact of the disease. In 1778, a catastrophic epidemic struck Istanbul with terrifying force. After a brief pause in February and March, it re-emerged in April, infecting the Ottoman fleet as it prepared for its annual patrol. The situation escalated dramatically, and by July, the death toll was estimated to be at least a thousand people per day, turning Istanbul into what was described as a Dead City. Contemporary observers estimated that the city lost nearly one-third of its population of 500,000-600,000, a figure considered plausible. This crisis ground economic life to a halt, with bazaars and commercial districts being completely abandoned, and prompted a mass flight of inhabitants, especially wealthy Europeans and non-Muslims. Over the following decade, the pestilence spread relentlessly. The disease was carried by ships to the Aegean islands and by land along the great Balkan roads, moving from city to city with traveling merchants and armies. Outbreaks ravaged Rumelia, Anatolia, Syria, and Egypt, leaving a trail of demographic and economic devastation. The plague appeared in Edirne and Bursa in 1778; it settled in the Balkans, including Bosnia, Serbia, and Macedonia, between 1781 and 1784; and it struck Syria and Egypt with particular severity between 1784 and 1787.[1]

II. The Ottoman Treatise Tradition and the Arrival of Plague in Anatolia

The genre of plague treatises in the Islamic world emerged in direct response to the catastrophic outbreaks of disease, most notably the Black Death of 1347. While Islamic civilization had long engaged with disease through

[1] Daniel Panzac, *Osmanlı İmparatorluğu'nda Veba 1700-1850*, Tarih Vakfı Yurt Yayınları, İstanbul, 1997, 21-38.

medical and religious discourses, the Black Death catalysed the production of a distinctive literary tradition focused specifically on the plague. Prior to the Black Death, epidemics were not typically treated as standalone subjects in Islamic literature. Authors such as Kindî, Râzî, and Ibn Sînâ addressed epidemic illnesses within broader medical works, often linking them to atmospheric or environmental disturbances. However, these discussions did not evolve into dedicated treatises on plague until after 1347, when the sheer scale and devastation of the pandemic demanded a focused response. The Mamluk Sultanate became the initial centre of plague treatise production. Egypt's status as an intellectual and commercial hub facilitated the emergence of this genre, with Zayn al-Dîn Ibn al-Wardi's (d. 1349) treatise often cited as the earliest surviving example. Mamluk-era works typically attempted to define the plague medically while acknowledging the limitations of existing theories.[2]

The plague first entered Ottoman territories in 1347, initially causing sporadic outbreaks along major routes every 10-15 years. According to Varlık, following the conquest of Constantinople, the plague's evolution within the empire from 1453 to 1600 can be understood in three phases. First, from 1453 to 1517, the plague frequently entered from the West through Balkan trade hubs and was present for nearly half this period. Next, from 1517 to 1570, Ottoman expansion into Syria, Egypt, and Rhodes diversified transmission routes from the south. This dramatically increased the plague's frequency, with outbreaks recorded in over 80% of these years. Finally, from 1570 to 1600, Istanbul evolved into a primary, self-sustaining plague hub where the disease became an almost annual occurrence, cementing it as a constant and widespread threat throughout the landscape.[3]

The 17th century witnessed a significant resurgence of the plague. Istanbul was struck by severe waves in 1637 and 1655. The disease afflicted all social strata, from the general populace to the highest levels of power. A testament to its indiscriminate nature, former Grand Vizier Melek Mehmed Pasha lost his life to the plague in 1662.[4] By the 18th century, a sharp divergence emerged between the Ottoman Empire and its European neighbours. As the plague began to recede from Europe, it continued to ravage Ottoman territories. Throughout this period, the plague's impact was all-encompassing, with outbreaks documented across the empire's vast geography, from the Balkans to the Arab provinces. Port cities frequently served as gateways for the disease's relentless spread. A particularly catastrophic outbreak, termed the great plague

[2] Mustakim Arıcı, "İslâm Coğrafyasında Salgınlar Tarihinin Sessiz Kaynakları: Taun/Veba Risaleleri Literatürü", *Nazariyat* 7/1 (Nisan 2021): 106, 111-112.
[3] For more detail please see: Nükhet Varlık, *Plague and Empire in the Early Modern Mediterranean World: The Ottoman Experience, 1347–1600*, Cambridge: Cambridge University Press, 2015, 131-203.
[4] Fikret Sarıcaoğlu, "Melek Ahmed Paşa", *TDV İslâm Ansiklopedisi*, İstanbul, volume 29, 2004, 44.

(*tâûn-ı kebir*), struck Istanbul in 1751 following a major flood. The mortality rate was so staggering that in some households, inheritance changed hands four times in rapid succession as each heir perished. In the following years, the disease remained active, with Adana and Cyprus reporting mass death and flight in 1764 and Istanbul faced another major epidemic in 1765. The late 18th century saw the plague's activity intensify dramatically. Despite some reports indicating a lull, Ottoman archives reveal that the plague epidemic in Eregli and Karaman in 1777 was severe enough to prevent new recruitments. This was merely a prelude to the massive Istanbul plague of 1778. During this outbreak, daily deaths were estimated to be at least 1,000, with the total death toll potentially reaching 200,000.[5]

From the 15th century onward, the Ottomans inherited and significantly expanded the plague treatise tradition, synthesizing knowledge from neighbouring geographies. Ottoman treatises moved beyond narrow medical or religious concerns to engage broader theological, legal, social, and political questions. A defining feature of this tradition was its linguistic diversity. While Mamluk treatises were exclusively in Arabic, the Ottomans produced works in both Arabic and Turkish, thereby reaching wider audiences.[6] The first known Turkish plague treatise was likely *Rebî'u's-selâme* (The Spring of Safety) by Nidâî Mehmed Çelebi Ankaravî, dedicated to Sultan Selim II.[7] Furthermore, a significant translation movement highlights the importance of this literature to the Ottomans. Key Arabic works, including Taşköprülüzâde Ahmed Efendi's *Risâletü'ş-şifa*[8] (*The Treatise of Healing*) and İdrîs-i Bitlisî's *el-İbâ an mevâki'i'l-vebâ* (The Refusal to Be in Plague-Stricken Places), were translated into Turkish, often at the behest of sultans.[9]

While theological concerns were paramount, the medical discourse in Ottoman treatises grew more prominent compared to their Mamluk predecessors, partly because several authors were themselves physicians. Works from the court of Sultan Bayezid II, such as those by the Spanish-born Jewish physician İlyâs b.

[5] Ertuğrul Tan, "XVIII. Yüzyılda Osmanlılarda Vebâ: Örnek Bir Çalışma Olarak Gevrekzâde Hâfız Hasan Efendi'nin Micennetü't-Tâ'ûn ve'l-Vebâ İsimli Çalışması" (Unpublished PhD Dissertation, Karadeniz Technical University, 2016), 37-51. *Micennetü't-Tâ'ûn ve'l-Vebâ* by Gevrekzâde Hasan Efendi (d. 1801/1216) is the Turkish translation of arabic *Micennetü't-tâ'ûn ve'l-vebâ* (The Shield against the Plague and the Epidemic) by İlyâs b. İbrâhim.

[6] Mustakim Arıcı, *Teoloji ve Bilim Arasında: İslam Düşünce ve Tıp Tarihinde Veba Risaleleri*, (İstanbul: İbn Haldun Üniversitesi Yayınları, 2024), 69-70.

[7] Nuray Demir Öztürk, *16. Yüzyılda Veba Üzerine Yazılmış Bir Tıp Eseri: Nidâî'nin Rebî'u's-Selâme'si*, (Ankara: Grafiker Yayınları, 2021).

[8] Taşköprülüzâde Ahmed Efendi, *Risâletü'ş-şifâ li-edvâi'l-vebâ* (Mısır: Matbaatü'l-Vehbiyye, 1292), quoted in Arıcı, "İslâm Coğrafyasında Salgınlar Tarihinin Sessiz Kaynakları", 141.

[9] İdrîs-i Bitlisî (ö. 926/1520) *el-İbâ an mevâki'i'l-vebâ* (Süleymaniye Library, Şehit Ali Paşa 2033, 61b-103a, h. 933; Süleymaniye Library, Âşir Efendi 275, 101b-160b, h. 1184; Topkapı Sarayı, III. Ahmed 1471), quoted in Arıcı, "İslâm Coğrafyasında Salgınlar Tarihinin Sessiz Kaynakları", 141.

İbrâhim, reveal a strong medical orientation. İlyâs b. İbrâhim openly criticized the physicians of Istanbul for their "lax attitude" and perceived inability to treat the plague, asserting that a cure was indeed possible. He also offered a nuanced reading of İbn Sînâ's (Avicenna) relative silence on plague treatment in *al-Qanun*, suggesting that İbn Sînâ may have viewed the disease as having a metaphysical or spiritual dimension that transcended conventional medicine. This sense that the plague was a uniquely challenging ailment was echoed by Bitlisî, who noted that most medical books lacked dedicated chapters on the plague because its causes were not well understood and its cure seemed to lie beyond human power, in the hands of the God.[10]

The tradition of writing plague treatises continued unabated into the 17th and 18th centuries, demonstrating the genre's sustained importance in Ottoman intellectual life. Authors of this period built upon the foundations laid by their predecessors while introducing new elements and perspectives. This period also saw a significant effort to incorporate contemporary European medical knowledge. The chief physician İbn Sellûm (d. 1669), in his comprehensive encyclopedia *Gâyetü'l-itkân fî tedbîri bedeni'l-insân*[11] (The Utmost Perfection in the Management of the Human Body), analysed the plague within the traditional medical paradigm while also referencing the work of European physicians like the German Daniel Sennert. Furthermore, İbn Sellûm translated a Latin work on putrid fevers by the Spanish physician Luis Mercado, a clear demonstration of the active integration of Western medical thought. Simultaneously, the production of Turkish treatises flourished. Works by Kızılhisarlı Hibrî Ali Efendi (d. after 1679), written in response to a specific outbreak, and the discussions of contagious fevers by Hekimbaşı Hayatizade Mustafa Feyzî (d. 1692), illustrate the genre's continued vibrancy and practical application. Translation activity also remained a key feature, with İlyas b. İbrahim's Micennetü't-tâ'ûn ve'l-veba[12] (*The Shield against the Plague and the Epidemic*) and İdris-i Bitlisî's Arabic treatise *el-İbâ* being transleted into Turkish.[13]

[10] Arıcı, *Teoloji ve Bilim Arasında*, 77-80.
[11] İbn Sellûm, *Gâyetü'l-itkân fî tedbîri bedeni'l-insân*, prep. Muhammed Yâsir b. Mahmûd Cemîl Zakkûr (Beyrut: Dâru'l-Kütübi'l-İlmiyye, 2018), quoted in Arıcı, "İslâm Coğrafyasında Salgınlar Tarihinin Sessiz Kaynakları", 134.
[12] İlyâs b. İbrâhim, *Micennetü't-tâ'ûn ve'l-vebâ*, Süleymaniye Library, Esad Efendi 2483, quoted in Arıcı, "İslâm Coğrafyasında Salgınlar Tarihinin Sessiz Kaynakları", 141.
[13] Arıcı, *Teoloji ve Bilim Arasında*, 71, 77.

III. The Life of Müstakimzade and His Connection to Medicine

Müstakimzâde was born in 1718 in Istanbul.[14] He came from a family with a strong tradition in the scholarly class. His father, Mehmed Emin Efendi, was a *müderris*, and his renowned name, *Müstakimzade* was a tribute to his grandfather, Mehmed Müstakim Efendi, who had served as a judge (*kadı*). Müstakimzade's education was vast and eclectic. In addition to the sciences of Arabic language, fiqh (Islamic jurisprudence), hadith (prophetic traditions), aqa'id (creed), rhetoric, logic, and medicine, he also took lessons in artistic fields such as calligraphy and music. He formally studied a wide range of Islamic sciences with numerous masters and showed a profound dedication to the art of calligraphy, a skill present in his family. His passion for the art culminated in his authoring of Gift for Calligraphers (*Tuhfe-i Hattâtîn)*, arguably the most comprehensive biographical dictionary of calligraphers written up to his time.[15]

Like his ancestors, Müstakimzade aspired to a formal career as a professor (*müderris*). In 1751, following the death of his father, he took the examination for a professorship (*müderrislik*), which was overseen by the sitting Şeyhülislam, Seyyid Murtaza Efendi. However, he was failed unfairly, with Müstakimzade stating that the reason given was his sparse beard. It is highly probable that the real cause was a long-held family grudge. This failure was a traumatic event that shaped the rest of his life. He described the experience as being "slaughtered without a knife". He was so deeply affected that he abandoned his ambition for a formal career, and when another Şeyhülislam, Mehmed Emin Efendi, later offered him a professorship, he refused it. After this turning point, Müstakimzade entered a life of scholarly seclusion dedicating his time to writing and teaching from his home. Having never married, he lived a life of poverty and earned his living primarily by copying books for patrons. He was a highly sought-after scribe, known for his speed and his practice of copying from the most authoritative manuscripts available, often from the author's own copy. In his later years, Müstakimzade suffered from numerous health problem. He also appears to have suffered from significant psychological distress. One incident, which he

[14] Despite several authors suggesting his birth year as 1719, Ensar Karakgöz, in his PhD dissertation on Müstakimzade, conclusively determines the date to be 1718. Ensar Karagöz, "İlmiye Teşkilatı Tarihine Kaynaklık Eden Bir Âlim: Eserleriyle Müstakimzâde Süleyman Sadeddin" (Unpublished PhD Dissertation, İstanbul Üniversitesi, 2022), 45. See also: Ahmet Yılmaz, "Müstakîmzâde'nin Hayatı, Eserleri ve Mecelletü'n-Nisâb'ı", (Unpublished PhD Dissertation, Ankara Üniversitesi Sosyal Bilimler Enstitüsü, 1991), XVII, 1-33; Mustafa Demirci, "Müstakîmzâde Süleyman Sa'deddi'in Hayatı, Eserlerı ve Tasavvufi Görüşleri", (Unpublished PhD Dissertation, Marmara Üniversitesi Sosyal Bilimler Enstitüsü, 2006), 27-52; Ahmet Yılmaz, "Müstakimzâde Süleyman Sâdeddin", *TDV İslâm Ansiklopedisi*, İstanbul, volume 32, 2006, 113-115.

[15] For more detailed information please see: Müstakimzade Süleyman Sa'deddin, *Tuhfe-i Hattatin*, prep. by İbnülemin Mahmud Kemal (Ankara: Türk Tarih Encümeni, 1928); Müstakimzade Süleyman Sa'deddin, *Tuhfe-i Hattatin*, prep. by Mustafa Koç (Istanbul: Klasik Yayınları, 2014).

recorded in 1785, displays symptoms of severe obsessive-compulsive disorder (OCD). After hearing a story about a man urinating in a water glass, he was so traumatized that he completely stopped drinking water, relying only on the moisture from fruits like melons and cherries for hydration. Müstakimzade passed away on July 14, 1788 and was buried in the Pîrî Paşa Mosque cemetery in Zeyrek.[16]

While not formally a physician, Müstakimzade had a profound and multifaceted connection to the field of medicine. This involvement stemmed from his personal relationships with leading physicians, his scholarly work, and his practical experience in creating medicinal formulas. Throughout his life, he remained in close contact with prominent medical practitioners. His circle included high-ranking physicians, such as a chief physician to Sultan Mustafa III who was also his calligraphy master, and a royal physician. Furthermore, his list of teachers and peers included apothecaries, which was likely the source of his knowledge regarding medicinal plants. His intellectual curiosity led him to translate, summarize, and author several works related to medicine. In 1763-64, for example, he summarized two treatises on cauterization into a new work. His own collected notebooks also contain numerous other medical recipes for ailments like goitre, poisoning, and sword and knife wounds. Most impressively, Müstakimzade also engaged in pharmacological practice. A note in a medical manuscript records a specific medicinal formula that "Müstakimzade made for Sultan Mahmud Han," adding that "I have tried it myself; its benefit is obvious."[17]

IV. The Spiritual and Intellectual World of the Müstakimzade's Treatise

Müstakimzade's plague treatise emerges as a microcosm of the late 18th-century Ottoman intellectual and spiritual world, following the tradition that preceded it. Far from presenting a fragmented set of beliefs, his work reveals a deeply syncretic worldview that seamlessly integrates spiritual, scientific, and folkloric elements into a comprehensive defence system against plague. Müstakimzaade completed the initial version of *Cihâzu'l-Ma'cûn fî Halâsi't-Tâ'ûn* in the year 1776 and later refined it in 1780. Both titles he assigned to the work incorporate the respective dates of their composition through abjad reckoning. To date, fifteen manuscript copies of the work have been identified.[18]

[16] Karagöz, "İlmiye Teşkilatı Tarihine Kaynaklık Eden Bir Âlim", 98-156.

[17] Ebu'l-Feyz Mustafa Efendi, *Nuzhetü'l-Ebdân fî Tercemeti Gâyeti'l-İtkân*, Süleymaniye Library, Hacı Mahmud Efendi, nr. 5504, fol. 409a, quoted in Karagöz, "İlmiye Teşkilatı Tarihine Kaynaklık Eden Bir Âlim", 143.

[18] İran Kitâbhâne-i Umûmî-yi Hazret-i Ayetullah Mar'aşî, 12103, 80b-87b (autograph manuscript); Kahire Dâru'l-Kütübi'l-Mısriyye, Mecâmi Türkî Tal'at 837, 249b-254a (autograph manuscript); Süleymaniye Library, Pertev Paşa 625, 80b-85b; Topkapi Palace Museum Library, Yeni Yazmalar 347,

The intellectual tradition from which Müstakimzade's *Cihâzu'l-Ma'cûn* emerged was initially part of a shared discourse on plague, displaying fundamental similarities not only between Ottoman and Arab scholars but also with European thinkers. Prior to 1600, both Muslim and European scholars often understood plague in contagionist terms, circulated their works in similar courtly and academic circles, and freely borrowed concepts from one another. For example, as early as 1500, the Ottoman scholar Bitlisî argued from personal experience that plague was contagious, much like rabies in animals. Other Ottoman writers discussed isolation as a preventive measure, with Al-Yahudi attributing the idea to Ibn Rushd (Averroes), suggesting a quarantine-like concept existed in Islamic thought two centuries before the Black Death. However, a significant gap between Ottoman and European perceptions of plague emerged between 1600 and 1800. This divergence was driven by the rise of mercantilism and state-led economic development in maritime European powers like England. In Europe, quarantine became an institutional reform linked to a national economic agenda and public health. English plague treatise writers participated in an emerging commercial print culture, and their work increasingly served to justify mercantilist policies. In contrast, the Ottoman context in which Müstakimzade wrote was markedly different. There were comparatively fewer Ottoman plague treatises written in the 17th and 18th centuries, and their authors remained confined to courtly and academic circles, not participating in a commercial print culture or reflecting new commercial interests. It is within this specific framework, one less concerned with state-led commercial reform and more rooted in a continuous intellectual tradition, that Müstakimzade's holistic and spiritually-focused work should be understood. [19]

On the other hand, this holistic approach, deeply rooted in established Ottoman responses to plague, frequently invoked esoteric knowledge to make sense of the disease. The syncretic worldview presented in *Cihâzu'l-Ma'cûn*, which seamlessly blends prayer, pharmacology, and ritual, is deeply rooted in established Ottoman approaches to plague that frequently invoked esoteric

33b-38b; Süleymaniye Library, Esad Efendi 1329, 42b-49a; Istanbul University Nadir Eserler Library, Türkçe Yazmalar, 6698, 39b-45; The Faculty of Language and History-Geography, Muzaffer Özak I 455, 158b-164b; British Library, Or. Ms. 12629, 30b-34a; Istanbul University Nadir Eserler Library, Türkçe Yazmalar, 6701, (46-52b); Topkapi Palace Museum Library, Emanet Hazinesi 1753, 139b-143b; The Faculty of Language and History-Geography, Mecâmi Türkî Tal'at 105, 98,102a; Süleymaniye Library, Pertev Paşa 625, 80b-85b; Süleymaniye Library, Halet Efendi 405, 115b-121a; Istanbul University Nadir Eserler Library, Türkçe Yazmalar, 3315, 62b-68a; Istanbul University Nadir Eserler Library, Türkçe Yazmalar, 9329, 39a-47a, quoted in Karagöz, "İlmiye Teşkilatı Tarihine Kaynaklık Eden Bir Âlim", 178-179. I was unable to access the author's original autographs. Nevertheless, while other copies of the same work have been consulted for comparison, this study primarily relies on Esad Efendi 1329 as the main source.

[19] Birsen Bulmuş, *Plague, Quarantines and Geopolitics in the Ottoman Empire*, Edinburgh University Press, Edinburgh, 2012, 39-48.

knowledge. The treatise's emphasis on protective objects, the power of prayer, and the role of supernatural forces was not an anomaly but a continuation of a rich intellectual heritage. This tradition prominently featured two forms of magical understanding. The first was a cabalistic approach based on the knowledge of letters (*ilm-i huruf*), a mystical system using the numerical and symbolic values of the Arabic alphabet to understand the Quran and the names of God.[20] The second major tradition was astrological and talismanic magic. Müstakimzade's prescriptions, such as using ruby rings, keeping pigeons to repel *jinn*, and consuming specific foods, are therefore a direct reflection of this multi-layered and coherent intellectual ecosystem where the spiritual, physical, and metaphysical realms were seen as deeply intertwined.[21]

The treatise establishes a clear epistemological hierarchy in which different sources of knowledge are ranked according to their proximity to divine truth. At the apex of this hierarchy stand prophets and saints, whose authority derives from divine revelation and inspiration (*vahiy, keşif* and *ilham*). These figures represent the highest form of knowledge, as they receive direct communication from the divine realm. Physicians occupy the subsequent tier in this knowledge hierarchy. According to the treatise's framework, these medical practitioners have acquired their understanding of the properties of natural substances through experience and practice, following the path originally laid by the aforementioned holy figures.[22]

The intellectual lineage presented in *Cihâzu'l-Ma'cûn* traces back to several revered figures who embody the fusion of divine inspiration and practical knowledge. These include the prophet Daniel, representing prophetic wisdom; the physician Luqman (*Lokman Hekim*), exemplifying the integration of spiritual and medical insight; and Hermes Trismegistus (*Hermesü'l-Heramise*), designated as the "teacher of teachers" and acknowledged as an ancestral figure from whom even Hippocrates was proud to claim descent. By incorporating the wisdom of philosophers such as Plato (*Eflatun-ı İlahi*), the text masterfully synthesizes Islamic and Hellenistic traditions into a single, cohesive source of legitimate knowledge. This synthesis demonstrates the treatise's sophisticated

[20] The science of ilm-i huruf is a mystical Islamic practice that studies the hidden power of Arabic letters, divine names, and their numerical values. It combines magic, astrology, and number symbolism (like gematria). Letters are grouped into four elements (fire, air, water, earth) and given numbers, which are used for divination, healing, or influencing events (e.g., strengthening Mars in war). Though not based on logic, followers believe sacred texts, such as the Quran's verses or God's 99 Names, can reveal divine secrets through visions. This practice was popular among mystics seeking spiritual insights. For more detail please see: Toufic Fahd, "Ḥurūf," *Encyclopedia of Islam*, volume 3, Leiden, 1986, 595-596.

[21] Müstakimzade Süleyman Sâdeddin, *Cihâzu'l-Ma'cûn fî Halâsi't-Tâ'ûn* Süleymaniye Library, Esad Efendi 1329, fol. 47a.

[22] *Cihâzü'l-ma'cûn*, Esad Efendi 1329, fol. 42b.

approach to establishing intellectual authority that transcends religious and cultural boundaries while maintaining internal consistency.[23]

In *Cihâzu'l-Ma'cûn*, it is also essential to reconstruct the intellectual paradigms of its time. While Müstakimzade's prescriptions may appear eclectic to a modern observer, they were entirely rational within the 18th-century Ottoman worldview. The author and their contemporary audience perceived no contradiction between praying, taking Galenic medicine, and carrying protective talismans. Rather than being disparate approaches, these constituted a comprehensive, multi-layered defense system that addressed disease on multiple levels of causality. This synthesis of the prophetic, the medical, and the talismanic represents a holistic arsenal of remedies, demonstrating the treatise's sophisticated approach to establishing intellectual authority. Ultimately, *Cihâzu'l-Ma'cûn* presents prayer, pharmacology, and ritual as equally valid and mutually reinforcing tools in the face of an overwhelming threat.

V. Spiritual Prescriptions: Verse, Prayer, and Dhikr

Müstakimzade's holistic approach is exemplified by a range of divinely-sourced recommendations intended to heal or ward off the plague. The treatise recommends specific verses from the Qur'an, known as the Verses of Healing (*Ayat al-Shifa*), to be written on paper, placed in a glass of water until the ink dissolves, and then given to the sick to drink for a cure. It cites a narration from Muhibbi, quoting Ibn Abi Hajlah, that one of the most tested methods is the recitation of the final verses of Surah Al-Hashr while placing a hand on the patient's head. Another practice involves writing specific verses, such as from Surah Hud (from *"innî tevekkeltu 'alâllâhi rabbî ve rabbikum"* to *"müstakim"*), on paper and hanging it on a child's head to protect them from afflictions.[24]

The text also emphasizes the power of specific chapters of the Qur'an and collective prayer. It references a hadith stating, "The Fatiha is a cure for every disease," and suggests that writing this surah in a clean container, washing it with water, and giving the water to a patient will alleviate their illness. For communal relief, it proposes a powerful ritual: after the Friday prayer, forty men who have memorized the Qur'an (*hafiz*) should gather to complete a full reading of the scripture (*hatim*). Following their collective supplication, the afternoon call to prayer (*adhan*) is to be performed in a public square. This practice, it is noted, was tried by the scholars of Al-Azhar and observed to bring immediate relief from the plague, with complete recovery within days.[25]

[23] *Cihâzü'l-ma'cûn*, Esad Efendi 1329, fol. 43a.
[24] *Cihâzü'l-ma'cûn*, Esad Efendi 1329, fol. 44a.
[25] *Cihâzü'l-ma'cûn*, Esad Efendi 1329, fol. 46a.

Further recommendations include specific litanies and protective acts, such as reciting Surah Al-Kafirun, Surah Al-Ikhlas (eleven times), and Surahs Al-Falaq and An-Nas, then blowing into the hands and wiping the entire body. The invocation of God's beautiful names (*Asma'ul Husna*) is also central. For instance, inscribing the name *al-Muqtadir* (The Omnipotent) on the stone of a ring or reciting the name *al-Mu'in* (The Helper) a specific number of times (136, based on its Abjad value) is believed to grant security from the plague. These practices illustrate a system where divine words, ritual actions, and communal devotion are mobilized as a primary line of defence against pestilence.[26]

VI. Practical Measures: Tradition, Folklore and Medicine

Beyond scriptural recitation, the treatise details a wide array of folkloric, dietary, and social interventions. Apotropaic traditions feature prominently, such as the belief that keeping pigeons (especially red ones) or a white rooster with a forked comb and five claws in a house will protect its inhabitants by distracting the jinn, who were believed to be a cause of the plague. The presence of bitter oranges in a home was similarly thought to repel jinn. Even personal grooming was imbued with protective power, as one tradition held that a person who combed their eyebrows before their beard would be safe from the plague. The burning of incense was also recommended, alongside dietary advice that included consuming verjuice sherbet, sour plums, lentils cooked with vinegar, and garlic. For travellers, a specific ritual was prescribed: upon arriving in a new town, they should mix a small amount of local soil into the first water they drink to gain immunity from the local plague.[27]

The text also reinforces the value of Galenic (*Calinus*) medicine through an anecdote about the renowned physician Galen during a great plague in Cairo. When 20,000 people were perishing daily, Galen prescribed a remedy of saffron mixed with rose water, to be taken on an empty stomach. The treatise notes that this compound was prepared and used during the current plague, and "praise be to God, it was seen that they found safety." [28]Furthermore, the reading of specific scholarly books was considered a protective act. Citing Katib Çelebi's Kashf al-Zunun[29], it recommends reading Imam Quduri's seminal work of Hanafi jurisprudence, *el-Muhtasar,* during plague days.[30] Similarly, it refers to Taşköprülüzade's statement that writing out Qadi Iyad's famous hadith

[26] *Cihâzü'l-ma'cûn*, Esad Efendi 1329, fol. 46b.
[27] *Cihâzü'l-ma'cûn*, Esad Efendi 1329, fol. 47b.
[28] *Cihâzü'l-ma'cûn*, Esad Efendi 1329, fol. 47b.
[29] İlhan Kutluer, "Keşfü'z-Zunûn", *TDV İslâm Ansiklopedisi*, Ankara, volume 25, 2022, 321-332; Katip Çelebi, Mustafa b. Abdullah Hacı Halife, 1609-1657: *Kashf al-zunun an asami al-kutub wa al-funun=Lexicon bibliographicum et encyclopaedicum*, ed. Gustavus Flüegel, London, 1835, 1837, 1842, 1845, 1850,1852, 1852.
[30] Ferhat Koca, "el-Muhtasar", *TDV İslâm Ansiklopedisi*, İstanbul, volume 31, 2020, 64-66.

collection, Kitab al-Shifa[31], is highly beneficial. Social and ethical duties were also framed as a defence against disease. Giving charity (sadaqa), especially by covering the funeral costs of the poor or donating to the dervishes of Sufi orders, was considered a powerful means of repelling the plague. Kindness towards the mentally afflicted, whom a hadith calls "the roses of Paradise", was particularly encouraged as a protective measure.[32]

VII. Conclusion

This article has conducted an analysis of Müstakimzade Süleyman Sâdeddin's 1780 work, *Cihâzu'l-Ma'cûn fî Halâsi't-Tâ'ûn* (The Apparatus of the Concoction for Salvation from the Plague), as an intellectual response to a public health crisis in the 18th-century Ottoman world. The analysis revealed that this treatise is not merely a collection of prescriptions, but rather a reflection of a holistic and syncretic worldview that brings together spiritual, medical, and folkloric elements. Spiritual practices such as prayer and dhikr (invocation), pharmacological advice based on Galenic medicine, and protective talismans and traditional beliefs were not seen as contradictory by the people of the era; instead, they were viewed as mutually reinforcing components of a multi-layered defence system against the plague. By situating the treatise in a broader context, the study has highlighted both the demographic and economic devastation of the plague epidemics that ravaged the Ottoman Empire and the rich tradition of plague treatises that developed in Islamic civilization since the Black Death. Müstakimzade's life and his close relationship with the science of medicine have played a key role in understanding why he authored such a comprehensive work. *Cihâzu'l-Ma'cûn* offers an invaluable window into how a pre-modern society perceived the phenomenon of disease. This work shows that an 18th-century Ottoman scholar responded to a crisis not by choosing between faith and reason, but by mobilizing all available sources of knowledge, including the divine, the empirical, and the traditional, in a united front against the pestilence. This approach makes Müstakimzade's treatise not just a document of medical or religious history, but a fundamental source for understanding the intellectual ecosystem and crisis-management strategies of its era.

[31] M. Yaşar Kandemir, "eş-Şifâ", *TDV İslâm Ansiklopedisi*, İstanbul, volume 39, 2010, 134-138.
[32] *Cihâzü'l-ma'cûn*, Esad Efendi 1329, fol. 48b-49a.

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Managing Syphilis in the Ottoman Society: A Case of Neglect and Indifference

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Abstract

Syphilis, known in the Ottoman Empire as "Frengi," emerged as one of the most destructive public health crises of the 19th and early 20th centuries. Although introduced relatively late compared to Europe, the disease spread rapidly due to wars, migration, trade, and seasonal labour mobility. Archival records reveal extremely high infection rates in provinces such as Bursa, Kastamonu, and Aydın, with some areas reporting up to 80% of the population infected. The state attempted to address the epidemic through regulations, the establishment of hospitals, and the enforcement of mandatory examinations and treatments. Nevertheless, logistical shortcomings, lack of medical specialists, and financial constraints undermined these efforts. Military campaigns played a central role in accelerating transmission, as soldiers carried the disease from war zones to civilian populations. Prostitution and state-regulated brothels, initially intended to control venereal diseases, paradoxically facilitated further spread, especially due to inadequate inspections of foreign sex workers and clandestine establishments. In addition, poor hygiene practices and communal use of household items gave rise to "innocent syphilis," a non-sexual form of transmission affecting women and children. A major obstacle was the social stigma attached to syphilis, often perceived as a shameful or immoral disease. Many patients concealed their condition to avoid dishonour, social exclusion, or professional disgrace, with some even driven to suicide. In other cases, individuals deliberately exploited the disease to evade military service. Public ignorance, reliance on folk remedies, and resistance to premarital health checks further weakened state interventions. Diplomatic pressures from foreign consulates also prevented the effective regulation of prostitution. Ultimately, the Ottoman struggle against syphilis illustrates a multidimensional crisis in which medical, social, cultural, and administrative factors intersected. The failure to reconcile public health measures with entrenched cultural norms, inadequate infrastructure, and widespread negligence transformed syphilis into a threat not only to individual health but also to

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demographics, morality, and national defence. The study examines the spread, perception, and control of syphilis in the Ottoman Empire during the nineteenth and early twentieth centuries. Drawing on archival records, medical treatises, and state regulations, the article investigates how the disease emerged as a multifaceted public health crisis that combined medical, social, cultural, and administrative dimensions. This study also highlights the broader challenges of disease control in societies where stigma, misinformation, and systemic limitations obstruct effective public health responses.

Keywords: Ottoman State, Syphilis, Public Health, Epidemic Control, Negligence and Public Perception

I. Introduction

Known by names such as "*Frenk uyuzu*" (Frankish scabies), "daül'efrenc," or "maraz-ı efrenci," syphilis has been one of the oldest and most dangerous infectious diseases in human history. Within the Ottoman world, the severity of this disease and the necessity of combating it to protect public health have been recurring concerns throughout the empire's history. A 1911 report by İbrahim Pasha vividly illustrates the devastating impact of syphilis on Ottoman society. According to this report, syphilis was considered far more destructive than other feared epidemic diseases of the period, such as cholera and plague. The primary reason for this perception was the hereditary threat posed by the disease, which could be transmitted from one generation to the next. The report emphasizes that the syphilitic microbe remains active in the body for many years, causing severe and often irreversible damage to both internal and external organs. By contaminating the blood and thereby inducing various illnesses deep within the body and vital organs, syphilis demonstrated its exceptionally perilous nature. The disease's capacity to cause deformities on the face and other parts of the body significantly diminished the quality of life of those afflicted and deeply affected their social appearance. Thus, the report is crucial not only for highlighting the demographic losses caused by syphilis but also for drawing attention to the social marginalization and physical disfigurement suffered by patients. İbrahim Pasha's conclusive assertion —"*There is no disease as harmful to humankind as syphilis*"— clearly reflects the perception of syphilis as a critical threat to the Ottoman Empire and underscores the vital importance of efforts to combat it.[1].

[1] Necati Çavdar, Erol Karcı, "XIX. Yüzyıl Sonları- XX. Yüzyıl Başlarındsa Osmanlı Devletinde Frengi ile Micadele Kapsamında Yapılan Yasal Düzenlemeler", *Gaziosmanpaşa Üniversitesi Sosyal Bilimler Araştırmaları Dergisi*, 11/2, 2016, pp. 157-175, p. 157; Başak Ocak, "Hamidiye Etfal Hastanesi'nin Kurucusu İbrahim Paşa'nın Frengi Hakkındaki Layihası", *Çağdaş Türkiye Tarihi Araştırmaları Dergisi*, XIX/38, 2019, pp. 5-25, p. 11 and 20.

In the Ottoman world, syphilis emerged as one of the most pressing public health issues of the time, prompting the Ottoman state to adopt a range of measures to combat the disease. The characterization of syphilis as a destructive force "*leading to the extinction of many lives and the ruin of the Ottoman population*" underscores the urgency and significance of intervention efforts. As a result of governmental decisions, the Supreme Council of Health (*Meclis-i Ali-i Sıhhiye*), under Article 64 of the Contagious Diseases Regulation (*Emraz-ı Sariye Nizamnamesi*), officially declared "*the entirety of Ottoman territories as a syphilis zone*." This decree is particularly significant as it reflects the formal recognition of syphilis as a national threat and mandates a comprehensive, countrywide response to the epidemic[2]. In this context, at the very beginning of the 20th century, it was decided that the reporting, examination, and treatment of syphilis would be made mandatory throughout the empire. A comprehensive directive outlining treatment protocols for each stage of the disease was prepared and officially adopted. However, bureaucratic and logistical obstacles soon emerged as major challenges to this large-scale and demanding campaign. For instance, despite the Syphilis Control Commission, operating under the General Directorate of Public Health (*Sıhhiye Müdüriyet-i Umumiyesi*), requesting permission to organize public lectures in Turkish and other languages in Istanbul to raise awareness about syphilis prevention, this critical request went unanswered for an extended period. The delay and lack of response in such a fundamental aspect of epidemic control—public education and awareness—reveals a significant shortcoming in the Ottoman Empire's anti-syphilis efforts. This situation highlights not only the prevalence and severity of the disease but also the systemic barriers that hindered the implementation of effective public health policies[3].

In Ottoman society, syphilis represented a serious and widespread public health concern. Archival documents from the period describe the disease as an *"illet-i müthişe"*—a "terrifying affliction"—and emphasize the *"memalik-i şahanece iras eylediği haşarat,"* referring to the harm it inflicted upon the imperial territories. Such terminology clearly illustrates the grave threat that syphilis posed to both the population and the stability of the empire[4].Syphilis was not an isolated issue within the Ottoman Empire; rather, it had spread across a wide geographical area and emerged as a widespread threat to public health. A close examination of archival documents from the period reveals that by the late 19th and early 20th centuries, the disease had reached particularly severe levels in the provinces of Kastamonu, Bursa, Ankara, and Aydın. Efforts documented

[2] *Frengi İlletine Karşı Mücadele İçin Hususi Teşkilat Olmayan Mahallerde Frengi İlletinin Men-i İntişarına Dair, Talimatname-i Sıhhi*, Dersaadet, 1331, p. 1-2.
[3] DH-İ-UM, 19/10- 165, 10 December 1336- 18 Rabi II 1338.
[4] BEO. 1169/ 87647, 14/ Rabi I /1316.

in contemporary sources to prevent the disease from spreading to *vilayet-i mütecavire*—neighbouring provinces—demonstrate the extent to which the potential for further transmission was taken seriously by the authorities[5].

The devastating impact of syphilis on the Ottoman population is particularly evident in data from the Hüdavendigâr (Bursa) province dated to 1904. Reports indicated that in certain districts of this province, the proportion of individuals infected with syphilis had risen to between 60% and 80%. Such alarmingly high infection rates demonstrate the disease's direct and profound threat to both the demographic structure and public health. Existing healthcare institutions proved inadequate in the face of the epidemic's scale. The large number of syphilis patients seeking treatment at the Bursa Gureba Hospital overwhelmed its capacity, leading to a request for the establishment of a separate treatment centre specifically for syphilis patients. This situation underscored not only the crisis in Bursa, but also the need for three new syphilis hospitals in Kastamonu, two in Aydın, and five additional facilities—either newly constructed or expanded—in the various districts of the Hüdavendigâr province. Indeed, archival records from the period frequently highlight the inadequacy of contemporary healthcare practices in addressing the scale of the crisis. For instance, it was discovered that some itinerant syphilis physicians were providing only *"sathî"*—that is, superficial or inadequate—treatment, which underscored the urgent need for more comprehensive and systemic measures. Given the extent of the damage caused by the disease, the state was compelled to undertake significant financial sacrifices, amounting to millions of kuruş, and to allocate additional annual funds in the tens of thousands of lira. These expenditures reveal how critically and urgently the fight against syphilis was perceived within Ottoman society. Halting the spread of the disease and preventing its destructive effects had become one of the state's foremost public health priorities[6].

Although there are multiple theories regarding the historical origins of syphilis, the most widely accepted view is that the disease was brought to Europe following the discovery of the Americas. Syphilis caused major epidemics across Europe and Asia during the 16th century, but it did not reach Ottoman territories until the early 19th century. This delayed introduction suggests that the dynamics of the disease's spread in the Ottoman context followed a trajectory distinct from that in Europe. Wars played a crucial role in the spread of syphilis within the Ottoman Empire. Notably, after the Russo-Ottoman wars of 1806–1812 and 1828–1829, syphilis began to appear in the occupied regions. Following the Crimean War (1853–1856) and the Russo-Ottoman War of 1877–1878, the disease experienced a dramatic surge. The fact that syphilis spread through

[5] BEO. 1169/ 87647, 14/ Rabi I /1316.
[6] DH.MKT., 871/ 75, 06/ Jumada I/1322 (Hijri); BEO. 1169/ 87647, 14/ Rabi I /1316.

displaced populations, migrants, and soldiers after these conflicts highlights the critical role of human mobility and social upheaval in the transmission of the disease. An examination of the temporal and geographical trajectory of syphilis in the Ottoman Empire reveals that the disease intensified during certain periods and gradually spread to wider areas. Between 1851 and 1857, syphilis expanded from Istanbul to Anatolia and its surroundings, the Balkans, and even the Arabian Peninsula. This period marks the first significant wave of the disease, beginning in the capital and reaching strategic regions. From 1850 to 1865, syphilis became increasingly widespread. Between 1865 and 1881, the disease manifested severely in some provinces while remaining less prevalent in others. This variation suggests regional disparities in response efforts or that the disease had not yet attained the characteristics of a full-scale epidemic. However, from 1886 onward, it is clearly documented that syphilis had spiralled out of control in Anatolia and had taken on the character of a general epidemic. From that point on, the disease followed a trajectory originating in the Ottoman Empire's port cities, particularly affecting the provinces of Kastamonu and Sinop. This pattern offers a significant insight into the role of maritime trade routes and port towns as central hubs for the spread of the epidemic. By the early 20th century, this relentless disease was no longer confined to Anatolia. Through wars, migrations, trade routes, and port cities, syphilis continued to manifest as large-scale outbreaks throughout nearly all of Anatolia, the Middle East, Rumelia, and the Balkans[7].

Another noteworthy detail found in the archival records of the period is the role of seasonal migration in the spread of syphilis. In the province of Adana, the disease was reported to have become more prevalent due, in part, to the arrival of seasonal agricultural labourers from other provinces. It is particularly striking that a sexually transmitted disease like syphilis could spread through the movements of these workers. In response, the provincial administration attempted to inform rural communities about the spread of the disease by sending written notices to villages, thereby initiating efforts to raise public awareness. The regular inspection of public spaces such as inns, coffeehouses, barbershops, and bathhouses—as well as of *"alüftes"* (prostitutes/women engaged in sex work)—indicates an attempt to monitor and control individuals and environments deemed to pose a high risk of transmission. These measures were likely intended to interrupt chains of contagion as part of broader epidemic control strategies.

[7] Mehmet Temel, "Birinci Dünya Savaşı ve Mütareke Yıllarında Türkiye'deki Bulaşıcı ve Zührevi Hastalıklara Karşı Alınan Önlemler", *İlmi Araştırmalar*, 6, İstanbul, 1998, pp. 227-243, p. 230-231; Başak Ocak, p. 6; Mehmet Orçun Karacan, "19. Yüzyılda Anadolu'da Frengi ve Alınan Tedbirler''KTÜEFAD, 2 (2022), pp. 29-51, p. 29, Taner Bilgin – Sinem Akyol, Hatıralar Işığında 20. Yüzyıl'ın Başında Anadolu'da Frengi Salgını, Vakanüvis- Uluslararası Tarih Araştırmaları Dergisi, 8/ 1, 2023, pp. 292-320, p.295; Karacan, p. 33.

Archival records suggest that the migrant workforce had not only economic but also significant public health implications. While the movement of seasonal agricultural labourers contributed to agricultural productivity, it also brought considerable risks, including the introduction of infectious diseases to new regions and the acceleration of disease transmission within existing ones[8].

A similar case appears in another archival record stating that approximately 15% of the laborers arriving from the province of Mamuretülaziz (Elazığ) were afflicted with syphilis. During the harvest season, a significant number of workers traveling to Adana for reaping work were reported to originate from the sub-districts of Keyfe (in the Erzurum province) and Palu (in the Diyarbakır province). Among the large number of labourers arriving from these areas, syphilis was detected in approximately 20% of individuals. This indicates that the seasonal migration of the labour force was a significant factor in the transmission of the disease. Furthermore, the archival document emphasizes that labourers arriving from Mamuretülaziz should be medically examined and those found to be infected with syphilis should be "prevented from mingling with others" and placed under medical treatment. This wording suggests that a quarantine or isolation-based intervention was intended to prevent the spread of the disease to the local population. The proposed measure reflects an early form of epidemic control aimed at limiting interpersonal contact and reducing the risk of transmission from mobile labor groups to resident communities[9].

Another notable detail found in the archival documents of the period concerns the spread of syphilis among military personnel. An archival record from the *Rumeli Müfettişliği Jandarma Müşiriyet ve Kumandanlık Evrakları* contains information indicating that gendarmerie officers and soldiers in Thessaloniki contracted syphilis from both local and foreign prostitutes. The document states that "*a considerable number of local and foreign women in Thessaloniki engaged in prostitution were afflicted with syphilis and similar contagious diseases, and that these diseases had spread to civilians as well as to military and gendarmerie personnel to a degree that is both alarming and regrettable*." Such expressions offer a crucial clue that syphilis was being transmitted rapidly and widely among military ranks, largely due to their mobility within the city and their interactions in particular environments. This situation highlights the vulnerability of armed forces to sexually transmitted infections during periods of urban deployment and emphasizes the need for targeted health interventions within military settings[10]. A similar case appears in another archival record, found in the Records of the *Sadaret Mektubi Mühimme Kalemi Evrakı*,

[8] DH. MKT., 917/ 6, 17/ Shawwal /1322 (Hijri).
[9] DH. MKT., 917/ 6, 17/ Shawwal /1322 (Hijri).
[10] TFR.I..AS.. , 38/ 3705, 28/ Jumada II /1324 (Hijri).

which notes that the high number of ships docking at the port of İzmir—and the movements of soldiers arriving and departing through this port—had a significant role in the spread of syphilis. This observation points to the role that the mobility of soldiers and sailors played in the geographical dissemination of the disease[11].

For all these reasons, the Ottoman government issued measures aimed at "*preventing the spread of the syphilitic affliction and halting its transmission to neighbouring provinces*", and officially communicated an imperial decree to "*the entire personnel of the imperial military schools*". The objective of preventing the disease's spread to adjacent regions—and the specific effort to inform military school personnel—clearly demonstrates that the geographic mobility of military units and personnel was perceived as a potential risk factor in the transmission of the disease. Given that military personnel were frequently relocated due to the nature of their duties, concerns that this mobility could accelerate the spread of syphilis formed the basis of these precautions. Although the archival document from the *Babıali Evrak Odası Evrakı* does not include direct reports from physicians, it is evident that the state authorities and public health officials of the time recognized the significant role of military movement in the transmission of contagious diseases such as syphilis and took strategic decisions accordingly[12].

II. Lack of Awareness: The Spread of Syphilis and Its Social Impacts

Syphilis, which began to appear in the early 19th century within Ottoman territories and turned into an epidemic by the mid-century, constituted a serious public health issue. One of the most critical factors in the rapid spread of this venereal disease throughout the Ottoman geography was the intense warfare of the period and the resulting population mobility—particularly migration. The constant state of war, especially towards the end of the 19th and the beginning of the 20th centuries, created fertile ground for the proliferation of the disease. Major conflicts such as the wars of 1806–1812, 1828–1829, the Crimean War of 1853–1856, and the Russo-Turkish War of 1877–1878 enabled the transmission of syphilis across the empire, primarily via war zones, migrating civilians, and soldiers. One of the main difficulties in combating syphilis in the Ottoman Empire stemmed from its transmission through military movement and population displacement. Although archival sources show that the fight against syphilis began in places like Kastamonu Province as early as the 1860s, the rate of spread could not be reduced despite the measures taken. Ongoing migration and military deployments contributed to the expansion of the disease into cities like Istanbul and across much of Anatolia, where it had previously had little impact. These

[11] A. MKT.MHM., 502/ 23,26/ Dhi al-Hijjah /1308 (Hijri).
[12] BEO., 87647/ 1169, 14/ Rabi I /1316 (Hijri).

wartime migrations, combined with international trade and domestic travel—including seasonal labour migration—accelerated the spread of syphilis throughout the empire. For example, soldiers returning from Europe and bakers who had worked in Russia brought the disease back to regions like Kastamonu, Sinop, and Bolu, sparking local outbreaks. Military personnel played a particularly significant role in the dissemination of the disease. The constant movement of troops, as well as the crowded and unsanitary living conditions in barracks, facilitated its rapid spread. There are recorded cases where 35 soldiers from a single village were found to be infected with syphilis—clear evidence of the high rate of transmission among soldiers and the ease with which shared items in military dormitories turned localized infections into larger outbreaks. These specific conditions enabled the disease to spread rapidly within the military, and then to the civilian population through discharged or redeployed soldiers. Following the Crimean War, efforts to control prostitution led to the opening of regulated brothels, which also played a significant role in the dissemination of syphilis. Foreign women working in these establishments, as well as domestic servants such as cooks and stewards employed in the mansions of Ottoman pashas, often transmitted the disease to their families. This contributed to the infiltration of the disease into different social strata, demonstrating how postwar social change and human mobility further fuelled its spread[13].

The spread of syphilis in the Ottoman Empire was closely linked not only to population mobility and warfare but also to the inadequacy of the existing healthcare infrastructure and the social dynamics shaped by the conditions of the period. Archival documents from the era reveal that the state was at times unable to increase doctors' salaries or allocate sufficient funds to hospitals. Practical obstacles such as the shortage of medical specialists for syphilis treatment and salary-related issues faced by existing experts further hampered the state's efforts to combat the epidemic[14]. As emphasized in official publications of the period, the overcrowding of military hospitals with syphilis patients during wartime vividly illustrates the scale of the epidemic and its devastating impact on the armed forces. In the words of one physician, the observation that "*many strong and vigorous young men were hospitalized due to syphilis or gonorrhoea*" reveals the vulnerability of the empire's youthful and dynamic population to such diseases. The statement that "*while their heroic comrades were fighting the enemy at the borders, launching assaults, they lay idle in hospital beds*"

[13] Çavdar- Karcı, p. 157, 162 and 172, Ocak, p. 6; Zeynel Özlü- Mustafa Murat Çay, "19.Yüzyılda Osmanlı Devleti'nde Salgın Hastalıklarla Mücadele ve Frengi Hastalığı, Koronavirüs Pandemisi ve Geçmişten Günümüze Salgın Hastalıklar", Ed. Mehmet Ali Yıldırım, Kilis, 2020, p. 169; Bilgin- Akyol, p. 295 and 298; Cemal Sezer, "Bolu Sancağında Frengi (1912-1918)", *Karadeniz Araştırmaları Enstitüsü Dergisi*, 7/12, pp.125-139, p. 126; Ahmet Özdinç, Cumhuriyet'in İlk Yıllarında Frengi: 1916-1925 Yılları Arası Salnamelerde Bolu Sancağı Örneği, *AbantMedJ,* 9(1), 2020, pp.8- 19, p. 8-9.

[14] DH.MKT. 561/ 32, 12/ Jumada I /1320 (Hijri).

underscores how the disease evolved beyond an individual health issue into a serious societal problem that directly affected national defence capacity. There is also a noticeable tone of frustration and criticism toward those infected, as reflected in the perspectives of contemporary doctors and public opinion. This criticism stemmed from the fact that these individuals were "*unable to stand by their comrades in the nation's most difficult hour*," and they were frequently described as "*reckless and debauched youth*." The remark that "*many hospitals were filled with such careless and dissolute young men*" reflects a broader perception of these patients as individuals who failed to fulfil their social responsibilities[15].

However, alongside such harsh criticisms, it is evident that some physicians approached the disease with a more empathetic perspective. One such doctor remarked, *"many were innocent; the poor souls had fallen into the traps of shameless and immoral prostitutes and unknowingly contracted the most dreadful disease of humanity."* This statement clearly highlights the critical role of sexual transmission and the influence of the social environment in the spread of syphilis. Particularly striking is the prevalence of the disease among many very young individuals who had *"voluntarily enlisted in the army the moment war was declared."* These youths were said to have *"fallen into the company of bad companions who misled them into associating with prostitutes, eventually resulting in their affliction with syphilis."* This situation demonstrates how wartime societal turmoil, exposure of young recruits to uncontrolled environments, and the influence of malicious individuals significantly increased the risk of infection. Thus, it becomes evident that the impact of war extended beyond the battlefield, also shaping the social behaviour of young soldiers and, by extension, negatively affecting public health behind the front lines[16].

It is particularly well known that, following the Crimean War, syphilis was widely spread across Turkish territories by both local and foreign soldiers. This spread has been linked not only to military movements but also to the broader social and moral breakdowns associated with the Empire's economic difficulties during its period of decline. The economic instability that emerged during the war—manifested in skyrocketing prices of essential goods and the absence of able-bodied men within families—drove many women, especially widows, into prostitution, often unwillingly. In response to the growing prevalence of prostitution and the associated rise in congenital syphilis, which caused stillbirths and disabilities, the Ottoman government began to implement public health measures. Within this context, brothels were established in Istanbul

[15] *Frengi- Gençlere Bazı Nesayih, Frengiden İnsan Kendini Nasıl Koruyabilir, Hıfzı's-sıhha-ı Umumiye Şubesi*, İstanbul, 1335, p. 7.
[16] *Frengi,* 1335, p. 7.

for the first time between 1856 and 1858, following the Crimean War. Although this initiative aimed to regulate prostitution, these brothels ended up playing a significant role in the further spread of syphilis rather than effectively containing it. One of the key issues was the lack of effective oversight and regulation, especially regarding foreign prostitutes. These establishments primarily employed women from the Greek, Armenian, and Jewish communities, alongside foreign sex workers. In the early stages, these foreign women were not subjected to medical examinations due to concerns over restricting their liberties. Furthermore, clandestine brothels and the difficulty of inspecting foreign prostitutes—often compounded by objections from foreign consulates—contributed significantly to the continued spread of the disease. For instance, in an 1889 report by the Governor of İzmir, Halil Rıfat Pasha, prostitution was identified as the primary cause of the disease, and İzmir's brothels were cited as the source of this problem. The report specifically proposed relocating unregulated brothels from side streets around the Kordon area and places like the Hacı Bey Inn to the designated Sakızlılar neighborhood, where continuous inspections could be carried out. Additionally, detailed measures were proposed to contain the spread of the disease. These included the inspection of the 71 brothels and 280 prostitutes in the Sakızlılar neighborhood twice a week (on Saturdays and Tuesdays) by two physicians, the establishment of a hospital with 25 beds for infected individuals, the use of metal tokens to identify those free of disease, and the dismissal of physicians who issued false health certificates. These proposals illustrate the extent and complexity of the efforts required to curb the spread of syphilis. When evaluated collectively, these developments reveal that the Ottoman struggle against syphilis began with the mass displacements and social upheavals triggered by wars, but ironically, became increasingly difficult as state-sanctioned brothels—originally established to regulate prostitution—ended up playing a central role in the transmission of the disease. In particular, the challenges of monitoring foreign prostitutes and the persistence of clandestine brothels emerged as major obstacles. These issues not only accelerated the spread of syphilis but also severely hindered the government's containment efforts, posing a serious threat to public health[17].

In the Ottoman Empire, efforts to combat syphilis—particularly when examined through the case of Salonica—clearly reveal both the critical role of prostitution and brothels in the transmission of the disease and the considerable challenges faced in addressing it. The impact of prostitution on the spread of the disease was explicitly acknowledged in official state correspondence from the period. In 1906, it was observed that syphilis had significantly spread from local and foreign prostitutes in Salonica to gendarmerie officers and soldiers. This

[17] Çavdar- Karcı, p. 160-161; Özlü- Çay, p. 169 and 176; Bilgin- Akyol, p. 296.

underscores the central role that brothels and sex workers played in the transmission of the disease among military personnel. In an attempt to mitigate this threat, Ottoman authorities proposed that "*prostitutes be medically examined and treated free of charge*." The aim of this measure was to prevent further transmission and contain the outbreak. Furthermore, it was recommended that infected sex workers receive treatment either within brothels or in private facilities, and that the necessary sanitary measures be determined by experts in the field. This approach reflects a broader public health strategy of the time—one focused on breaking the chain of infection through targeted and proactive intervention[18]. However, efforts to control the spread of the disease by regulating prostitution were at times obstructed by international diplomatic barriers. Despite the fact that consulates were officially informed in accordance with directives sent to the province of Salonica, the French Consul objected to the implementation of such measures. He asserted that the foreign women working in Ottoman brothels were professionals and that "*in France, such women were exempt from any kind of medical examination or intervention.*" Therefore, he declared that "*he could not consent*" to the enforcement of these health measures[19].

The Italian Consul, on the other hand, stated that he would seek permission from his embassy if an official notification were to be made. This diplomatic resistance illustrates the extent to which the Ottoman Empire was constrained in implementing public health measures against epidemics, even within its own territory. Although other consulates may have approved of such practices, it was feared that exempting French and Italian nationals—who made up the majority of the prostitutes—would provoke complaints from other consulates as well. Consequently, due to international pressure and diplomatic reservations, it was deemed inappropriate to exclude French and Italian subjects from medical examinations, and no further initiative was undertaken in this regard. This situation tragically underscores the limitations of Ottoman sovereignty in combating epidemic diseases within the framework of capitulations and international diplomatic entanglements[20].

From a regulatory perspective, there were already existing provisions in Salonica mandating that prostitutes be examined twice a week by physicians appointed by the municipality. However, orders were requested to ensure that these examinations be carried out regularly and consistently, that women identified as carrying infectious diseases be hospitalized, and that their contact with the general public be prevented. This request underscores that while such

[18] TFR.I..AS., 38/ 3705, 28/ Jumada II /1324 (Hijri).
[19] TFR.I..AS., 38/ 3705, 28/ Jumada II /1324 (Hijri).
[20] TFR.I..AS., 38/ 3705, 28/ Jumada II /1324 (Hijri).

regulations existed, their implementation faced significant shortcomings and required stricter oversight. Moreover, official correspondence from the period makes clear that women engaged in clandestine prostitution were never formally subjected to medical inspections. This omission was due to the known difficulties and obstacles that could arise during such procedures—a challenge acknowledged to exist in all countries. These factors reveal the complexity of controlling the full scope of the disease's transmission, both legally and practically. In summary, the Ottoman state clearly recognized the spread of syphilis through prostitution and brothels, and attempted to implement preventive measures such as free medical examinations and treatment. Nevertheless, consular intervention and diplomatic privileges, particularly regarding foreign prostitutes, posed insurmountable obstacles to these efforts. The inconsistent enforcement of local regulations and the inherent challenges in monitoring clandestine sex work further complicated the struggle. This situation demonstrates that the fight against syphilis was not merely a medical issue, but rather a complex matter intertwined with international relations, legal limitations, and the sociocultural fabric of the time—ultimately making disease control a highly difficult endeavour[21].

In the context of the challenges faced in combating venereal diseases—particularly syphilis—in the Ottoman Empire, prostitution and brothels were clearly significant vectors of transmission. An illustrative example of the difficulties encountered in the state's interventions in this area is found in a 1908 petition submitted by the brothel workers (referred to as *sermaye girls*) in Salonica. This document sheds light on both the state's efforts to control the spread of disease and the on-the-ground ramifications and problems these efforts produced. To curb the spread of venereal diseases, the Ottoman authorities subjected women working in brothels to regular medical examinations. In 1908, these examinations in Salonica were carried out by municipal doctors with the aim of minimizing the risk of contagion. According to the petition, these inspections—originally conducted once per week—had, for the past four months, been carried out by municipal physicians visiting the brothels directly. When a disease was detected, the afflicted individual was sent to the hospital for treatment. However, the implementation of these public health measures encountered significant difficulties. Foremost among the complaints presented in the petition were the physical harms caused by the frequency and method of examination. The *sermaye girls* reported that "*undergoing mechanical examinations twice a week*" severely damaged their bodies. The phrase, "*those who are delicate and weak are left crippled*," emphasizes the detrimental physical toll of such procedures. These harsh and invasive inspection methods not only

[21] TFR.I..AS., 38/ 3705, 28/ Jumada II /1324 (Hijri).

threatened the women's physical health but also led to resistance or avoidance, thereby undermining public health efforts. Indeed, the petition explicitly states that nobody could endure such hardship, highlighting the intense strain placed on these women by the state's medical protocols[22].

Another difficulty emphasized in the petition is that this examination system was unique to Salonica and not implemented in other cities twice a week. The statement, *"Twice-weekly examinations do not occur in other cities and are only practiced in Salonica"*, suggests a lack of standardization in public health policies across the Ottoman territories. The regional disparities in implementation may have hindered a comprehensive approach to disease control and potentially allowed syphilis to continue spreading at varying rates in different areas. Furthermore, the socio-economic necessity expressed by the brothel workers in their petition highlights yet another crucial dimension of the struggle against syphilis. The women's continued participation in sex work, despite the harsh conditions and medical procedures, reflects the broader economic compulsions that limited their ability to seek alternative livelihoods. This underscores how public health challenges were often intertwined with structural economic inequalities and social vulnerabilities. Although the women acknowledged that their occupation was a *"sanat-ı na meşru"* (an illegitimate profession), they emphasized that "*they engaged in it out of necessity*". This indicates that prostitution was often not a matter of personal choice, but rather a consequence of economic hardship, highlighting the vulnerability of these women. Ignoring the health conditions and medical concerns of women who were compelled to continue this work due to financial pressures contributed to the acceleration of the disease's spread and made its control more difficult. Moreover, expressions in the petition such as "*we beg with shame and modesty, covering our faces in tears*" reflect the women's deep sense of helplessness and their emotional response to the degrading and physically invasive nature of the medical procedures to which they were subjected. Such practices may have undermined cooperation from the very group targeted by public health efforts, increasing stigma and eroding trust in the health system. This presents a significant obstacle to the effective implementation of public health policies. Finally, the women's plea for examinations to return to their previous form—*"meccanen (free of charge) and once a week"*—demonstrates that both the frequency and the financial burden of the procedures had become critical issues[23].

Another major challenge encountered in the Ottoman Empire's fight against syphilis was that the spread of the disease was not confined to sexual transmission alone, but extended to the wider population through shared use of

[22] TFR.I..ŞKT., 159/ 15810, 15/ Jumada II /1326 (Hijri).
[23] TFR.I..ŞKT., 159/ 15810, 15/ Jumada II /1326 (Hijri).

personal items and poor hygiene practices. This particular mode of transmission led to the emergence of what was termed at the time as *"syphilis of the innocent"* or *"endemic syphilis."* The unique epidemiology of this form was strikingly illustrated by the observations of Düring Pasha, who conducted medical inspections during his travels in Anatolia. His report from the Kastamonu Province, claiming that 70–80% of the population was infected, may be considered exaggerated, but nonetheless underscores the devastating public health potential of the disease. Düring Pasha's most significant finding was that syphilis in Anatolia had taken on an endemic character, with the non-venereal *"innocent"* form being far more prevalent than its sexually transmitted counterpart. This widespread contagion stemmed primarily from communal use of everyday objects and systemic deficiencies in hygiene and public infrastructure. Items such as drinking cups, spoons, razors, and towels, as well as the sale of second-hand clothing without proper cleaning or disinfection, were key vectors. Similarly, shops selling household goods such as earthenware and ceramics were identified as additional sites of transmission. Establishments frequently visited by the public, such as barbershops, coffeehouses, and public baths, were deemed high-risk environments due to the shared use of equipment. In particular, it was noted that the practice of washing cups and glasses in communal basins in cafés and taverns could lead to contamination from infected individuals, prompting official instructions to replace such methods with individual washing containers fitted with spigots. Certain professions that required close physical contact with others—such as bathhouse attendants, domestic servants, and wet nurses—were also identified as potential sources of transmission. These individuals were ordered to undergo regular medical examinations, and those found to be infected were temporarily prohibited from practicing their trades. The general inadequacy of hygiene conditions and the low level of public awareness significantly contributed to the effectiveness of syphilis transmission. Despite the efforts of state officials and healthcare personnel, it was emphasized that the ultimate responsibility for eradicating the disease rested with individuals themselves and their willingness to fulfill their personal and communal responsibilities. Furthermore, within the prevailing norms of the period, medical practitioners were permitted to examine only limited parts of women's bodies—such as the mouth, neck, hands, and elbows—during clinical inspections. This restriction posed a substantial obstacle to the accurate diagnosis and effective monitoring of the disease, particularly among female patients[24].

The *Frengi Risalesi* (Treatise on Syphilis), published in 1846 by the Imperial School of Medicine Printing House (*Mekteb-i Tıbbiye-i Adliye-i Şahane*), emphasizes that combating syphilis in Ottoman society was a

[24] Karacan, p. 42- 43; Sezer, p. 129 and 136; Çavdar- Karcı, p. 163 and 166.

multifaceted public health challenge, shaped by the socio-cultural context, the level of medical knowledge, and everyday social practices of the time. According to this treatise, while sexual contact was a primary mode of transmission, the deeply ingrained habits of communal use and widespread deficiencies in hygiene also played a critical role in the disease's spread to large segments of the population. The text explicitly highlights that syphilis could be transmitted through oral contact, suggesting unexpected and often overlooked pathways for infection. As the treatise states, "*a man with a syphilitic lesion in his mouth kissing a respectable woman with lust, or that sick man's lips or tongue coming into contact with hers*," are listed among the transmission routes. This description dramatically illustrates that syphilis—a disease often associated with sexual acts—could also be transmitted through a seemingly innocent gesture such as a kiss. The treatise underscores this point by noting that "*syphilis could be transmitted by a kiss as easily as through sexual intercourse.*" This revelation compounded the difficulties faced by public health authorities in controlling the disease's spread. While sexual behavior might be restricted or monitored to some extent, regulating an act as personal and spontaneous as kissing proved virtually impossible. Moreover, the treatise cites a tragic example of a "*syphilitic mother who, having contracted the disease from her husband, subsequently passed it on to her child*"—demonstrating the fragility of the chain of transmission and how syphilis could easily spread even within the closest family unit[25].

In the Ottoman Empire, efforts to combat syphilis faced significant challenges not only due to its sexual transmission, but also because of its spread through communal habits and poor hygiene practices. The dissemination of the disease was not limited to sexual contact; rather, numerous everyday items and routines contributed to its transmission. Wet nurses, clothing (particularly handkerchiefs), the seats of European-style toilets, drinking and eating vessels (especially items passed from mouth to mouth), razors, poorly washed cutlery, contact with open wounds, cigarette tips, tobacco pipes, shaving kits, surgical instruments, catheters, and dental tools were all identified as possible vehicles for the spread of syphilis. In medical treatises and public health publications on syphilis, special emphasis was placed on detailing these non-sexual transmission routes. The aim was both to alter the public's generally dismissive attitude toward the disease and to raise awareness of the various means of prevention. The prominence given to these examples confirms that non-sexual transmission was far from insignificant in the broader epidemiology of the disease. In this context, the lecture titled "Research on Endemic Syphilis in Anatolia" (*Anadolu'daki Endemik Frengi Hakkındaki Araştırmalar*) by Dr. Düring Pasha—who had been brought from Germany during the reign of Sultan Abdulhamid II as part of

[25] *Frengi Risalesi*, Mekteb-i Tıbbiye-i Adliye-i Şahane matbaası, İstanbul, 1262 (1846), p. 8-9.

military and institutional reforms—provides critical insights. During his field investigations in the province of Kastamonu, Düring Pasha found that out of 140 school-aged children in a single village, more than 100 were infected with syphilis. This alarming rate of infection serves as one of the most striking examples of how poor hygiene contributed to the disease's spread. Düring Pasha explained this situation by noting that all the children drank from the same water container. If someone with an oral syphilitic lesion left saliva in the vessel, and other children's lips were cut by the sharp edge of the container while drinking, the infection would spread rapidly among them. This form of transmission came to be known in medical terminology as "innocent syphilis" (*Masum Frengi*), and it was asserted that a significant portion of syphilis cases in the country fell under this category. This mode of transmission demonstrates that syphilis was not confined solely to sexual contact but also spread rapidly through shared and unhygienic practices embedded in daily life. Anecdotal cases—such as an individual claiming to cure jaundice by applying his saliva to an open wound—reflect not only the presence of misguided traditional remedies but also highlight the heightened risk of infection posed by unhygienic methods. Despite regulatory measures, such as the state-sanctioned establishment of brothels and the formation of a health commission in 1869 within the Beyoğlu Sixth Municipal District to combat prostitution, the widespread presence of what was known as "innocent syphilis" (*masum frengi*) opened a different and more complex front in the state's fight against the epidemic. This widespread form of transmission, rooted in daily practices like sharing water and food containers and a general lack of personal hygiene, posed challenges that could not be addressed through medical interventions alone. Rather, it required a fundamental transformation of cultural habits and a broad elevation of public health awareness. Thus, the challenges faced by the Ottoman Empire in combating syphilis were significantly compounded by the high rate of transmission and the central role that communal use and hygiene deficiencies played—especially in the spread of the "innocent" form of the disease[26].

III. The Background of Negligence and Lack of Precaution: "Social Perceptions of the Disease and the Tendency to Conceal It"

Since syphilis was commonly perceived as a sexually transmitted disease, it was considered "*shameful*" or "*disgraceful*" in Ottoman society. This perception led patients to conceal their condition out of fear of being ostracized or socially stigmatized. Consequently, efforts to control the disease and curb its spread were severely hampered. The fear of social exclusion and loss of

[26] Fatma Bulut, Osmanlı'dan Cumhuriyet'e Tehlikeli Bir Miras: *"Frengi", Tarih Okulu, III, 2009, pp. 109-123, p.* 112; Taner Bilgin- Sinem Akyol, p. 294; Rüya Kılıç, Türkiye'de Frenginin Tarihi, Kebikeç, 38, 2014, pp.291-306, p. 296.

reputation, combined with feelings of deep shame and embarrassment, made the diagnosis and treatment process significantly more difficult. An official document from the Records of the Legal Consultancy of the Ministry of the Interior (Dâhiliye Nezâreti Hukuk Müşavirliği Belgeleri*)* reveals that this tendency to conceal the disease stemmed not only from feelings of shame, but also from a widespread ignorance and lack of seriousness toward the illness, especially among rural populations. People in the provinces often regarded syphilis as an "*ordinary ailment*" or a "*minor boil*." This dismissive and negligent attitude led many to avoid seeking medical attention until the disease had caused severe and visible disfigurement, particularly on the face or nose. Even though the existence of the illness was not outright denied, its early symptoms—which were critical for timely diagnosis and treatment—were often ignored until the condition became irreversibly advanced. This allowed the disease to spread silently and uncontrollably through infected individuals within the community. The delay in treatment enabled irreversible physical damage and heightened the risk of transmission. The aforementioned archival document also highlights other motives for concealing the disease. For example, it was discovered that some young men in the military deliberately avoided using the free medication provided for syphilis treatment in order to escape the mandatory 40-day reserve duty prescribed by the army. This example illustrates that the concealment of the disease was not solely motivated by social stigma, but was also driven by self-interest and a desire to evade responsibilities. The Ottoman administration eventually recognized the seriousness of this issue and implemented necessary measures. Among these were policies mandating that individuals suspected of having syphilis in villages be reported to the government, with penalties considered for village headmen and elders who failed to comply. Additionally, awareness campaigns were planned, including the distribution of informative leaflets written in accessible language and the publication of notices in provincial newspapers, to help the public understand the gravity of the disease and available treatment methods. This state intervention underscores a stark truth: the act of concealing the disease—and the public's lack of awareness—was, in many ways, just as alarming as the disease itself[27].

[27] DH.HMŞ, 22/ 26, 07/S /1325 (Hijri). It was recorded "*based on numerous observations*" that patients tended to "*conceal and hide the disease they were afflicted with*." This statement strongly emphasized the social unacceptability of the illness and the pressure it placed on individuals. People, fearing social exclusion, loss of reputation, or family-related problems if their condition became known, preferred to hide behind a veil of secrecy. The measures taken by the Ottoman government to prevent this spread also reveal how deeply rooted this tendency to concealment was. It was stated that "*those in villages who were suspected to have contracted such illnesses must be reported to the government*," and that "*village headmen and council elders who failed to do so would be punished*." These sanctions and threats demonstrate not only the challenge posed by individuals who concealed their illness, but also

Due to the tendency within society to conceal the disease, syphilis continued to spread covertly, which not only seriously undermined public health authorities' efforts to contain the epidemic but also made contact tracing increasingly difficult, thereby preventing the disruption of the disease's transmission cycle. In response, the Ottoman government utilized nearly all available means to raise public awareness. Measures were intensified to disseminate information about the spread of syphilis by issuing written notices even to remote villages and enforcing the regular medical examination of individuals in public venues such as inns, coffeehouses, barbershops, and public baths. Special emphasis was placed on the continuous examination of *alüftes* (prostitutes/women engaged in sex work), underscoring both the sexual transmission of the disease and its moral implications. This emphasis also reflected the perception of these women as a marginalized and surveilled group within society, seen not only as vectors of contagion but also as morally deviant and in need of control. Such an approach illustrates that syphilis was far more than a medical issue—it was a complex, multi-dimensional socio-cultural problem. The combination of "*widespread ignorance*" and "*false beliefs*" about the disease, along with the prevalence of *fuhşiyat* (prostitution), created an intricate and intractable challenge for the health teams attempting to combat syphilis. Confronting a disease that patients feared to disclose and that society approached with stigma and misinformation demanded more than medical treatment; it required an intensive campaign of public education and awareness-building[28].

It is also evident that the "*stigma and marginalization*" associated with contracting syphilis led to consequences so severe that they sometimes "*culminated in death*". Particularly for individuals in "*prestigious professions such as the military*", syphilis posed a serious "*threat to their honor"* and reputation, at times "*driving them to suicide*". The categorization of syphilis as a "*shameful disease*" had profound psychological repercussions. A striking example of this is the suicide of Hüsnü Efendi, the *Chief Clerk of the Second Supply Division of the Imperial Ministry of War* (Bâb-ı Seraskeri İkinci Levazım Şubesi Başkâtibi), who lived in the vicinity of Sultan Bayezid and took his own life in 1894 after contracting syphilis. In his will, Hüsnü Efendi—a man "*who had served the state honorably for more than thirty-five years—openly expressed the shame*" and anger he felt at having fallen victim to such a disease. His need to describe himself as a virtuous man who simply traveled between his home and office underscores the deep societal fear of being stigmatized.

the difficulty local authorities faced in fulfilling their reporting responsibilities. DH.MKT., 1154/ 59, 07/ Safar /1325 (Hijri).

[28] DH.MKT, 917/ 6, 17/ Shawwal /1322 (Hijri).

Moreover, since the early symptoms of the disease often appeared on the skin, in visible areas of the body, this visibility intensified "*public anger, rage, and hatred toward prostitution and sex workers*", who were commonly believed to be the source of the infection. Individuals who contracted syphilis were often afraid to disclose their condition or seek treatment, fearing it would be assumed they had acquired it from a prostitute. The fact that the disease could also infect unborn children led to the emergence of the concept of the "*cursed family*," further deepening the marginalization of infected individuals. Therefore, one of the greatest challenges in combating syphilis was not merely its diagnosis and medical treatment, but rather addressing the intense sociological and psychological burdens of stigma and marginalization faced by those suffering from the disease[29].

One of the underlying causes of the negligence and lack of precaution regarding syphilis in Ottoman society was the failure to recognize the seriousness of the disease. A significant portion of the population tended to perceive syphilis as a minor ailment or an insignificant skin eruption, a misconception that played a critical role in the unchecked spread of the disease and the emergence of tragic consequences. An official circular issued by the Ministry of the Interior on March 21, 1907, and sent to all provincial authorities, confirms this perception by stating explicitly that rural communities regarded syphilis as a commonplace and unimportant affliction. This attitude reflected not only a belittling of the disease but also a deep-seated ignorance and indifference toward its symptoms. Furthermore, this tendency to trivialize syphilis prevented individuals from seeking timely medical treatment. Unless the disease caused visible and disfiguring damage to areas such as the face or nose, most people refrained from consulting a doctor and instead chose to conceal their condition. This negligent behavior, rooted in ignorance and apathy, significantly contributed to the continued spread of the disease. The lack of public awareness about syphilis is further illustrated in the observations of Ahmet Şerif, who traveled through Anatolia in November 1913. Noting the generally poor health conditions in the Bolu district, Şerif emphasized that one of the main reasons for the persistence of the disease was the public's "*failure to take it seriously and their tendency to perceive it as something strange or bizarre*". So much so that one expert reported a striking observation: syphilitic patients were "*astonished as to why the government placed so much importance on, and spent money for, a disease that caused them no pain or discomfort*." This statement is highly significant in revealing not only the general unawareness within Ottoman society regarding the severity of the disease but also the profound ignorance individuals had about their own health. The fact that some patients could not comprehend the rationale

[29] Bulut, p. 112; Bilgin- Akyol, p. 295 and 297; Karacan, p. 36- 37.

behind the state's efforts and expenditures in combating syphilis clearly demonstrates that the disease's seriousness extended far beyond the common perception of it as a mere skin eruption. Even more alarming was the fact that, in some segments of society, rather than fearing or avoiding syphilis, certain individuals actually desired to contract it. This distorted mindset contributed to an increase in the use of the disease as a pretext to evade military service. Recent research on this issue reveals instances in which two healthy young men, motivated solely by a "*desire to avoid conscription*", deliberately engaged in intercourse with syphilitic women—a fact that was officially investigated and confirmed by an authorized official. In Bartın, doctors even encountered individuals "*who had intentionally burned the inside of their mouths with herbs and other substances to mimic syphilitic symptoms*", again with "*the aim of being declared unfit for military duty*". These incidents illustrate how ignorance and negligence surrounding syphilis gradually transformed into deliberate "*abuse*". They also reveal the extent to which individuals were willing to harm their own bodies in order to escape social obligations. In this context, syphilis ceased to be merely a medical issue and instead evolved into a complex problem shaped by societal norms, ignorance, and even manipulation[30].

On the other hand, syphilis was not solely transmitted through sexual intercourse; rather, it could spread through a much broader range of contact. For instance, a treatise dated 1846 explicitly states that *"a man with syphilitic lesion in his mouth could transmit the disease to a respectable woman merely by kissing her lustfully, or by allowing his lips and tongue to come into contact with hers."* This demonstrates that syphilis could be transmitted in ways far more subtle and unexpected than commonly assumed. Consequently, this contributed to the widespread misperception of the disease as a trivial affliction or a mere skin issue. The fact that even a simple kiss could lead to transmission indicates that syphilis was not confined to morally condemned or overtly "unclean" acts, but rather posed a threat of contagion at a far more pervasive level one that could endanger anyone, regardless of their behavior. This reality, however, was largely ignored[31]. Negligence, ignorance, and a lack of precaution in everyday practices played a crucial and interconnected role in the spread of syphilis. The aforementioned treatise also emphasized that *"transmission is possible through objects such as glasses, pipes, and spoons."* Using such items without proper cleaning after they had been used by an infected individual significantly increased the risk of direct contagion. The treatise even cited more advanced forms of transmission, stating that *"there have been cases in which individuals contracted the disease simply by sitting on furniture previously used by a syphilitic person or by shaking hands*

[30] Sezer, p.130; Karacan, p. 47; Çavdar- Karcı, p. 164.
[31] *Frengi Risalesi*, 1262 (1846), p. 8.

with them." The possibility of transmission through seemingly innocent acts — such as shaking hands or sitting where someone else had sat— reveals both the extent of misunderstanding surrounding syphilis and how greatly its danger was underestimated. While Europeans were known to follow more hygienic practices, such as *"eating from separate dishes"*, the absence of such customs in Ottoman society —particularly the widespread tradition of communal eating— may have created a heightened potential for transmission. In this context, the ease with which the disease could spread through daily life contributed significantly to its being dismissed as a "*ordinary*" ailment and, consequently, "*neglected*"[32].

Another significant factor contributing to the spread of syphilis due to negligence and ignorance was that some patients, rather than following medical advice, abandoned treatment either out of financial concerns or because they considered the disease unimportant. What initially appeared to be a minor sore often evolved into a severe and systemic health issue when neglected. In response, the Ottoman state implemented certain measures to combat syphilis. For instance, regulations stipulated that in areas "*where both men and women resided, it was inevitable that illicit relations would occur*". Therefore, *"prostitutes who engaged in such acts were instructed by authorities to submit themselves to medical inspection at least once a week; otherwise, they were not permitted to continue their work. Those who dared to act otherwise were subject to severe punishment, discipline, and public correction."* Additionally, if a prostitute was diagnosed with syphilis, *"she was to be sent directly to a women's hospital for syphilitic patients, treated there until recovery, and even then kept under observation for an additional twenty days in case of relapse, before being granted permission to resume her activities."* These official interventions indicate that the gravity of the disease was acknowledged at the administrative level. However, widespread ignorance and negligence among the general populace limited the effectiveness of these measures. In short, the phenomenon of "*neglect and lack of precaution*" in the face of syphilis in Ottoman society was closely tied to the disease's seemingly benign onset—initially manifesting as a painless, minor sore. This led the public to trivialize the condition, underestimate its seriousness, and disregard the "*warnings*" of physicians. Furthermore, syphilis could be transmitted not only through sexual contact but also via kissing, sharing personal items (such as cups, pipes, or spoons), and even through seemingly innocuous acts like sitting where an infected person had previously sat. Nevertheless, the public remained largely unaware of these various modes of transmission. Taken together, these factors clearly reveal that the widespread and devastating transmission of syphilis in Ottoman society was fundamentally driven by the public's perception of the disease as an ordinary or insignificant

[32] *Frengi Risalesi*, 1262 (1846), p. 8, 9 and 19.

ailment—and by the negligence and carelessness that stemmed from this perception[33].

One of the most devastating consequences of this ignorance and failure to take syphilis seriously was the continuation of marriages by infected individuals without undergoing treatment—resulting in the transmission of the disease to future generations. In his work *Frengi Makâlatı* (Syphilis Articles), Dr. Celaleddin Muhtar Özden examined the tragic outcomes of children born to fourteen syphilitic individuals who married without receiving treatment. According to Özden, 29 of the children from these unions were stillborn, and 8 died shortly after birth. These statistics starkly illustrate that syphilis was not only a threat to the individual patient but also a societal catastrophe with intergenerational consequences, undermining the very foundations of the family structure. These cases are a direct result of the failure to recognize the severity of the disease and to implement appropriate measures, such as mandatory treatment and marriage restrictions for infected individuals. The fact that some people refused treatment or concealed their condition and still entered into marriage stands as one of the most striking examples of how ignorance and negligence led to destruction passed down through generations. This clearly reveals the critical role of personal irresponsibility and widespread unawareness regarding the consequences of the disease in its continued spread. The persistence of marriages without treatment facilitated the enduring, generational impact of syphilis. The state's eventual necessity to enact comprehensive laws—such as providing free treatment and enforcing marriage bans—underscores the depth and prevalence of this public health negligence throughout Ottoman society[34].

Moreover, a critical factor contributing to the negligence and lack of precaution against syphilis in Ottoman society was the widespread preference among the rural population for traditional, non-scientific "*folk remedies*" over

[33] *Frengi Risalesi*, 1262 (1846), p. 18-19; *Frengi*, 1335, p. 3-4; As syphilis progressed, it caused serious damage to various organs. An official publication from the period noted that "*it is also known to have effects such as swelling and pain in the gums*." It was even reported that "*a few years ago, live syphilis bacteria were found in the brain, and the disease was identified as the cause of many cases of paralysis and insanity*." It was also stated that the illness led to symptoms such as "*severe leg pain, numbness in the feet, difficulty walking*", and eventually "*the poor person becomes bedridden and paralyzed*." "*Boils were said to form*" even under the skin. Once it reached the bones, "*patients experienced intense night pains, the bones would begin to deteriorate, swell, and decay*." It was noted that only when these terrifying symptoms appeared did the patient "*come to their senses and consult a doctor*." However, at that stage, "*it was too late*" and "*treatment was no longer possible*." This situation clearly demonstrates how the negligence and lack of precaution in the Ottoman society—stemming from the underestimation of early symptoms, ignorance regarding the consequences of incomplete treatment, and a widespread mistrust in doctors—contributed to the unchecked spread of syphilis. The disease became one of the most painful examples of how individual neglect and misinformation could evolve into a public catastrophe. *Frengi,* 1335, p. 5-6.

[34] Bilgin- Akyol, p. 310.

medical treatment. It is evident that such methods not only failed to cure the disease but also worsened the patient's condition. This reliance on misinformation and ineffective treatments adversely affected the course of the illness—reducing the likelihood of recovery while increasing the risk of transmission. In many parts of Ottoman society, turning to so-called "grandmother's remedies" or to quacks instead of seeking scientific medical care not only impeded recovery but also reflected a broader cultural disengagement from medical science and a lack of seriousness in confronting the disease. Even more tragically, these "*primitive methods*" sometimes led directly to death. A striking example was the widespread use of mercury-based treatments, such as "*inhaling mercury vapours*" or "*applying mercury ointments*". These methods, although common at the time, involved direct exposure to mercury, a substance whose toxic effects were not yet fully understood by contemporary medicine. As a result, "*many syphilis patients died from mercury poisoning rather than from the disease itself*". Those who survived often "*failed to recover due to incomplete or incorrect treatments*", and their illnesses became chronic, leading to severely diminished quality of life. This situation painfully illustrates not only the dangers of the disease but also the fatal consequences of uninformed and harmful treatment practices. It reveals the extent to which the Ottoman populace was vulnerable to misinformation and lacked proper healthcare guidance. Ultimately, the spread of syphilis and the failure to control it in the Ottoman Empire can be attributed to a confluence of negligence, inadequate public knowledge, reliance on traditional and hazardous treatments, disregard for hygiene, and an underestimation of the disease's transmission risks—all of which created fertile ground for the disease to take root and persist[35].

One significant factor in the negligence and lack of precaution regarding syphilis in Ottoman society was the societal resistance to premarital medical examinations. As part of efforts to curb the spread of syphilis, the requirement for a premarital health certificate was introduced. However, this policy encountered considerable cultural and social resistance, particularly concerning the examination of women. Article 5 of the *Health Regulation* (Talimatname-i Sıhhi) stipulated that individuals infected with syphilis were not permitted to marry unless four years had passed since the onset of the disease and they had remained free from any visible symptoms for at least one year. Those wishing to marry were required to prove their compliance with these conditions and present an official health certificate (*sıhhat varakası*). Furthermore, the regulation clearly stated that marriages could not be legally officiated without the submission of this certificate. This indicates that medical screening for syphilis had become a formal requirement in the marriage process. However, the implementation of

[35] Bilgin- Akyol, p. 301; Karacan, p. 47.

such measures faced substantial resistance, reflecting deep-rooted cultural sensitivities and societal reluctance to acknowledge the disease, particularly when it came to women's health and sexuality. This resistance further hindered effective public health interventions and allowed the continued spread of syphilis within the population[36].

In fact, the "*mandatory premarital health certificate*" introduced during the administration of Said Pasha was a product of a modern public health approach aimed at preventing the spread of syphilis. However, this policy faced substantial societal and cultural resistance, particularly regarding the medical examination of women. This resistance reflected the prevailing notions of privacy, gender roles, and traditional attitudes toward healthcare in Ottoman society, which collectively acted as a barrier against state-imposed medical interventions. Public ignorance or misinformation about the contagious nature and severity of the disease further fuelled resistance to medical examination, thus creating a significant pathway for the transmission of syphilis within society—especially through marriage. Due to traditional lifestyles and deeply ingrained concepts of modesty, many women were reluctant to undergo medical examinations, thereby impeding the diagnosis and treatment of the disease and making it difficult to break the chain of transmission. This resistance was not merely a matter of individual preference but rather a reflection of dominant social norms and cultural values, which posed a formidable challenge to public health initiatives. In response, the state adopted a series of measures to overcome this resistance and encourage compliance with medical protocols. One regulation stated that "*when physicians arrive at a village, they shall summon the imam and the village headman, and either extend invitations for examination or conduct them by going door-to-door together.*" This illustrates an effort to combine official authority with local trust in religious and administrative figures in order to reach the public effectively. Furthermore, following the examinations, individuals were issued a "*certificate to confirm their participation*", emphasizing the seriousness and formal nature of the process. One of the most striking measures was the enforcement of this certificate within the marriage process: "*Those who do not possess this document, or whose certificate does not clearly state whether they are healthy, shall not have their marriages officiated by imams or village headmen.*" This clause marked a radical step implemented through collaboration between religious and administrative authorities, highlighting the degree of pressure exerted on the public. Such "*mandatory regulations*" were a response to widespread negligence and ignorance, granting the state the authority to impose preventative health measures. Nevertheless, despite the central government's determination, implementation at the local level

[36] Frengi, 1331, p. 3.

faced numerous obstacles. For example, on "*April 6, 1912, during Said Pasha's government, the provincial administrators of Kastamonu requested amendments to certain articles of the regulation, arguing that the requirement for premarital medical examinations posed logistical difficulties, particularly for rural populations*". This suggests that for villagers, the requirement to travel to examination centres was perceived not only as a physical burden but perhaps also as an unnecessary inconvenience—shaped by the broader context of disease denial and insufficient awareness. In contrast, the central authority, namely the *Directorate-General of Public Health* (Sıhhiye Müdüriyet-i Umumiyesi), responded firmly, stating that "*with strict scientific precautions, the disease would be completely eradicated from the region within a year or two and that the proposed changes could not be accepted*". This reveals both the scientific rigor and uncompromising stance of the central government in combating syphilis, while also exposing the structural challenges posed by entrenched social and cultural practices at the local level. It also underscores the difficulty, even for a centralized state, in mobilizing a geographically widespread and socio-culturally diverse population under uniform public health directives[37].

[37] Çavdar- Karcı, p. 165; For instance, according to Article 3 of the regulation, the statement that those in the first six months of the disease "s*hall be forcibly referred to the hospital for intense and regular treatment*" suggests that individuals either failed to voluntarily seek treatment at the early stages or were unaware of the seriousness of the disease. If the public had taken the illness seriously and recognized its contagious nature, there would have been no need for such a "*forced*" referral. This reveals a widespread "*lack of awareness*" or a general attitude of indifference toward syphilis. Similarly, the provision requiring syphilitic patients who had passed the first year of the disease to "*attend outpatient treatment in hospitals or medical examination rooms allocated within government offices*" highlights the necessity of maintaining regular follow-up even in chronic cases. This indicates how crucial the long-term management and containment of the disease was perceived to be, yet also implies that the public struggled to sustain such follow-up on their own initiative. "*Article 6*" further mandates this continuity of care: "*Those recorded as syphilitic by physicians shall be examined once a week, or once a month if no visible symptoms are present*." Additionally, patients would be given personal booklets by official doctors in which "*all observations related to their treatment and medical examinations would be recorded*." These requirements for documentation and regular check-ups demonstrate the extent to which the state felt compelled to intervene in a context where individuals were unable or unwilling to manage the disease independently. The strictness of these measures strongly reflects a general ignorance about syphilis and the negligence it fostered. Since the public lacked adequate knowledge about transmission, long-term effects, and the importance of early treatment, the state's adoption of such strict and supervisory practices became inevitable. Within the Ottoman social structure, cultural norms, particularly regarding women's privacy, posed significant obstacles to medical treatment—especially in the case of physical examinations by male doctors. Notably, it was not the general public but "*women accustomed to prostitution*" who were placed under particularly close surveillance. These women were to be "*strictly inspected by the police, officially registered*," and given personal booklets, requiring them to undergo examinations "*once or preferably twice a week by public or municipal doctors or other authorized physicians*." Those newly infected were to be "*forcibly admitted to hospitals and subjected to an intense treatment lasting four and a half months. Even after being discharged, they were to continue receiving outpatient treatment from official physicians*". *Frengi*, 1331, p. 2-3.

The struggle against syphilis in Ottoman society reveals a dual dynamic: on the one hand, it reflects the central government's efforts to protect public health; on the other, it exposes how these efforts were often obstructed by the resistance of entrenched social structures and traditional practices. Under the conditions of the period, the spread of syphilis was frequently intertwined with a lack of awareness, disregard for the disease, and widespread societal resistance. Two primary goals were set in the fight against syphilis: the "*identification"* of patients and their "*treatment"*. Initially, *mobile physicians* (seyyar tabipler) were responsible for identifying cases, while hospitals and *mobile health officers* (seyyar sıhhiye memurları) carried out treatment. However, in 1920, the General Inspectorate (Müfettiş-i Umûmîlik) and mobile physicians were abolished, hospitals were placed under the control of local health directorates, and hospitals outside of the district centres were converted into dispensaries. From this point forward, the fight against syphilis was carried out by government physicians and health officers. Government physicians administered treatment to registered patients under the supervision of health officers and also brought unregistered cases under control, referring them to hospitals. Notably, even individuals who sought treatment independently at hospitals were required to be reported to the government physician within one month, and their treatment was thereafter placed under the physician's official responsibility—an indication of the importance placed on systematic disease tracking. Patients were treated with three doses of mercury injections annually. Upon completing all nine stages of treatment, their names were removed from the *syphilis registry book* (frengi künye defteri), and these individuals were granted permission to marry. All syphilis patients were treated "*free of charge"* at official health institutions and by state-employed physicians. Furthermore, physicians assigned to the fight against syphilis were strictly prohibited from opening private clinics, charging patients in villages, or dispensing medications in exchange for money. Despite these regulations, several key factors continued to contribute to the spread of the disease. Chief among these was, without doubt, the general public's lack of concern and widespread ignorance regarding syphilis. There was a notable absence of adequate knowledge or awareness within society about the modes of transmission and the severity of the illness. Indeed, it was recorded that "*individuals who had not been examined by a physician somehow managed to obtain medical clearance and proceeded to marry,*" which in turn led to the transmission of syphilis between spouses and even to cases of stillbirth. This clearly demonstrates how the official health control system was bypassed, and how a segment of the population either failed to comprehend or deliberately disregarded the potential consequences of the disease. Misconceptions surrounding the transmission routes of syphilis were also noteworthy. In certain regions—such as Kastamonu and Bolu—it was recorded that specific cases of

syphilis "*were not the result of prostitution*" and that the disease had been transmitted through the *cihâz-ı hazmî* (digestive system). While such statements suggest an awareness of alternative transmission routes beyond sexual contact, they also indicate a lack of clarity and sufficient public education regarding the primary means of transmission. The heated debates that arose during parliamentary discussions on the syphilis law further reflect this lack of understanding and widespread misinformation. Opponents of the law, operating under the false assumption that syphilis could only be transmitted sexually, argued that "*virgin girls could not contract syphilis*," and therefore demanded that they be exempted from medical examination. These demands were often reinforced by traditional and moralistic values, with appeals such as "*honour is more sacred than anything else.*" However, physician-parliamentarians strongly emphasized that syphilis was "*a far more dangerous problem than presumed*" and "*a national issue*," ultimately securing the law's passage. These debates clearly illustrate how scientific knowledge about the disease came into direct conflict with entrenched social prejudices and cultural norms[38].

It is well-documented that in some regions, cultural perceptions rendered medical interventions nearly impossible; for example, it was commonly believed that a woman visiting a doctor constituted an "*insult to her honour*." However, similar stigmas appear to have applied to men as well. Young men diagnosed with syphilis were often described as "*reckless and debauched*," a characterization that imposed a negative moral judgment on their lifestyle and character. This reveals that syphilis was not merely perceived as a physical ailment, but also as a moral failing that tarnished one's personal reputation. In one striking case, "*an engaged young man who discovered he had contracted syphilis chose to go to war and die*", rather than face the shame and social exclusion the disease would bring. This response reflects the depth of honour loss and societal ostracization tied to the illness, as well as its potential to severely disrupt one's prospects for marriage and family life. The transmission of the disease from parent to child was also a profound source of guilt and shame within families. Infants born with congenital syphilis were described as being "*covered in sores*," "*physically weak*," "*wrinkled in the face*," and "*never at peace*." Such depictions reinforced the notion that syphilis was not just an individual affliction, but a generational curse—a devastating and disgraceful condition that deeply affected the entire family[39].

An archival document from the *Umûr-ı Mahalliye-i Vilayât Müdüriyeti Belgeleri* (Records of the Provincial Directorate of Local Affairs) sheds light on the extent of indifference that could sometimes characterize the Ottoman

[38] Kılıç, p. 300- 301; Bilgin- Akyol, p. 311; Özdinç, p. 17; Özlü- Çay, p. 178- 179.
[39] Frengi, 1335, p. 7-8.

healthcare system, as revealed through the diagnosis process of a woman who had "*contracted syphilis following conduct deemed contrary to public morality*." In certain hospitals, syphilitic women—particularly "*Muslim prostitutes—were treated on an outpatient basis and dismissed, ostensibly due to the prevalence of other diseases such as typhus or cholera*". This practice reflects both the societal prejudice toward syphilitic individuals and a dismissive attitude toward their treatment needs. The document suggests that some physicians performed their duties in a "*negligent and indifferent manner*", and in certain cases, even abused their authority. Such conduct points to the deeply entrenched low social status of prostitutes and syphilitic patients, and highlights how moral judgments influenced both their medical treatment and overall societal perception[40].

Cases in which individuals deliberately contracted syphilis or feigned its symptoms in order to evade military service reflect both a significant obstacle to combating the disease and another dimension of the widespread negligence and lack of precaution regarding syphilis. Numerous archival documents from the period attest to this phenomenon. One such document notes that "*the conscription branches and military hospitals shall postpone the military service of individuals suffering from syphilis who are in need of treatment—whether they are Istanbul residents or provincial migrants settled in the city—and register them in the syphilis treatment ledger*." This statement indicates that syphilis was considered a legitimate medical reason for the temporary deferment of military duties. It becomes clear, then, that some young men took advantage of this legal provision by either deliberately avoiding treatment or exaggerating their symptoms. While this may not have constituted direct draft evasion, it nevertheless served as a legal loophole or strategy for temporarily avoiding military service[41].

An official document found in the Records of the Legal Consultancy of the Ministry of the Interior provides detailed insights into this issue. The document states: *"Since the rural population considers syphilis to be a common ailment—no more than an insignificant sore—it has been repeatedly observed that some young men avoid using the free medication provided, in order to escape military service, the Imperial Army, or the 40-day reserve duty. The continuation of this situation may contribute to the expansion of the disease's transmission. Therefore, it is deemed necessary to report individuals suspected of having syphilis with visible symptoms to the authorities. Furthermore, village headmen*

[40] DH.UMVM, 95/ 54, 26/ Rabi II /1335 (Hijri).

[41] For detailed information on the measures taken for the treatment of syphilis, please see. DH.EUM.LVZ., 30/ 103, 26/ Dhi al-Hijjah /1333 (Hijri); For detailed information on the treatment of individuals infected with syphilis and the precautions to be taken against this disease, please see., DH.HMŞ., 22/ 72, 29/ Dhi al-Hijjah /1333 (Hijri); For detailed information on the treatment of individuals who contracted syphilis before or during military service, please see. DH.MB..HPS., 156/ 14, 21/ Muharram /1334 (Hijri).

and local councils who fail to report such individuals shall be subject to punishment." This clearly demonstrates that some young men deliberately used syphilis as a pretext to avoid military obligations. It also confirms, through repeated observations, that these individuals intentionally refused treatment—specifically the free medication provided—in order to preserve the symptoms of the disease. This indicates a deliberate strategy to delay or evade conscription by prolonging their medical exemption[42].

In fact, this situation appears to be directly related to the conscription policies implemented by the Ottoman State during certain periods. Particularly under the reign of Sultan Abdülhamid II, syphilitic individuals (*İllet-i Efrenciyeliler*) were exempted from military service, and during World War I, those diagnosed with syphilis had their service deferred. Ironically, these regulations contributed to the spread of the disease. For example, individuals who sought to avoid conscription—especially the harsh conditions of military service in the deserts of Yemen—"*deliberately attempted to contract syphilis in order to benefit from these exemptions*". The extent of this abuse is striking. In his memoirs, Dr. Behiç Erkin specifically highlights the severity of draft evasion during the years of World War I, noting: *"Some intentionally contracted syphilis in order to escape military service. Ultimately, we were compelled to establish syphilitic labor battalions."* This statement illustrates the drastic measures the state was forced to adopt in response to such exploitation, creating "*specialized battalions*" to isolate and manage infected individuals. Moreover, conscripts who were diagnosed with syphilis during enlistment were ordered to postpone their service and undergo treatment. However, it was later discovered that many of them had not followed through with medical care, indicating that the motivation to evade conscription outweighed the concern for treatment. This underscores the prioritization of avoiding military duty over personal health among certain segments of the population. This widespread negligence, lack of precaution, ignorance, and abuse contributed to syphilis becoming a pervasive and threatening issue across the Ottoman territories, especially during the years of the First World War. As the war progressed, the disease spread throughout the country, with syphilitic soldiers becoming one of the primary agents of transmission. In the postwar period, although many soldiers infected during the Great War required extended treatment to fully recover, many were discharged from service either undiagnosed or without having completed their treatment. This facilitated the spread of the disease into the Anatolian countryside. In rural areas, several socio-cultural and infrastructural factors—such as the prevalence of extended family households, the communal use of personal items, and the lack of preventive health services—significantly contributed to the increase in syphilis

[42] DH. HMŞ., 22/ 26, 07/ Safar /1325 (Hijri).

cases. Furthermore, growing unemployment and poverty led to a rise in prostitution, which in turn exacerbated the spread of syphilis, presenting a serious threat to the fabric of society. The Ottoman state, faced with this threat, attempted to implement several preventive measures. In addition to policies exempting syphilitic individuals from conscription or deferring their military service, specialized "syphilis units" (*frengi bölükleri*) were established within military institutions such as the Selimiye Barracks in Istanbul and other military units. In these units, infected soldiers were treated under supervision. Moreover, broader legislative measures were enacted to combat not only syphilis but other contagious diseases as well. These included the *Regulation on Infectious and Contagious Diseases* (Emrâz-ı Sariye ve İstilaiye Nizamnamesi) issued on April 13, 1914, and the *Regulation on the Prevention of the Transmission of Venereal Diseases* (Emrâz-ı Zühreviyenin Men-i Sirayetine Dair Nizamname) dated October 18, 1915. Nevertheless, despite these efforts, significant challenges persisted in bringing syphilis under control[43].

IV. Conclusion

The issue of negligence and lack of precaution in addressing syphilis in Ottoman society points to a complex and multidimensional public health crisis that extended far beyond a mere medical concern. It embodied the intricate entanglement of social, cultural, economic, and administrative dynamics. At the core of this negligence lay a profound disconnect between medical reality and public perception. Syphilis, due to its sexual mode of transmission, was widely regarded as a source of shame and dishonor, which led many individuals to conceal their condition, thereby avoiding diagnosis and treatment. This tendency toward concealment sometimes had tragic consequences—driven by fears of social stigma and loss of personal reputation, some individuals were even pushed to suicide. In other cases, the disease was deliberately exploited for personal gain, such as to evade military service. On the other hand, the public's inclination to downplay the disease—perceiving it as nothing more than a boil or a trivial ailment—often led to the rejection of scientific medicine in favor of folk remedies or charlatan treatments. Many who began to recover abandoned medical care prematurely, further exacerbating the condition. This multifaceted misperception—rooted both in fears of social ostracism and in a general underestimation of the disease—constituted one of the most significant psychological barriers to effective disease control.

Moreover, the spread of syphilis was not confined solely to sexual transmission but was significantly exacerbated by deeply rooted social practices and inadequate hygiene conditions. The transmission of the disease through

[43] Sezer, p.129- 132; Ocak, p. 8; Bilgin- Akyol, p. 304; Bulut, p. 112.

everyday objects—such as communal drinking vessels, razors, and towels—particularly to children, reveals that the epidemic constituted a structural problem requiring not only medical intervention but also profound transformations in public awareness and cultural practices. This situation clearly demonstrates the extent to which state public health policies struggled in the face of entrenched social norms and behaviors.

The contradiction between the state's sincere efforts to combat syphilis and the bureaucratic obstacles, social resistance, and international restrictions encountered in practice constitutes a significant dimension of the negligence and lack of precaution. Forward-looking measures such as the requirement of pre-marital health certificates were often rejected by the public, particularly due to prevailing concerns over women's privacy and notions of honor—illustrating the clash between the spirit of legislation and social realities. Challenges in regulating brothels and objections from foreign consulates based on capitulatory rights revealed the state's inability to fully implement public health measures even within its own territory, exposing the tragic impact of sovereignty limitations on a public health crisis. Furthermore, bureaucratic delays, such as postponements in granting permission for public health lectures, and the inadequacy of medical infrastructure, exemplify how well-intentioned policies were frequently undermined in practice.

All these instances of negligence and lack of precaution allowed syphilis to evolve from a mere health issue into a threat that deeply affected the demographic structure, national defense capacity, and public morality of Ottoman society. Therefore, the challenges, negligence, and inadequacies in the Ottoman struggle against syphilis reflect not only medical shortcomings, but also a multifaceted and arduous battle against deep-rooted societal and cultural barriers, administrative weaknesses, and individual abuses. When all these details are evaluated collectively, the issue of negligence and disregard toward syphilis in Ottoman society should not be seen merely as a consequence of individual errors or a simple health problem. Rather, it must be understood as a complex and destructive public health crisis, intertwined with the era's social structure, cultural codes, economic conditions, wartime dynamics, and administrative insufficiencies.

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The Fight Against Malaria in Eastern Thrace in the 1930s

Semih ÇINAR*

Abstract

This study examines the fight against malaria in the Eastern Thrace region during the early years of the Republic and argues that this struggle was not merely a public health issue but also a development initiative that fundamentally transformed the region. Malaria was a disease inherited from the late Ottoman period, notable for its prevalence and its economic and social impact. The wetlands surrounding the Meriç, Ergene, and Tunca rivers, as well as the rice-growing areas around İpsala and Enez, made Eastern Thrace particularly suitable for the spread of malaria. Inspection reports from 1934 emphasised that almost every part of the region had become a malaria hotspot, stating that draining the marshes was essential not only for public health but also for the recovery of agricultural land. The institutional infrastructure for combating malaria began with the establishment of the Ministry of Health and Social Assistance during the years of the National Struggle, and the organisation took on a solid institutional structure under the long tenure of Dr. Refik Saydam. The legal framework for this effort was established with The Malaria Combating Act, enacted on 13 May 1926. Within the framework of this law, the campaign was carried out along three main axes: the treatment of patients with quinine, the elimination of mosquito breeding sites, and the drainage of swamps. The organised fight against malaria in Eastern Thrace gained momentum in July 1936 with the establishment of the Thrace Malaria Combat Organisation, in response to the scale of the threat in the region. The organisation's activities focused on three main areas: treating patients with quinine, keeping infected individuals away from Anopheles mosquitoes, and eliminating mosquito breeding grounds. The institution had a hierarchical structure extending from the central administration to the provinces: regional directors managed scientific and administrative affairs, while branch directors -malaria control physicians- travelled from village to village to provide treatment. In addition, a laboratory was established in Edirne as part of the organisation. Between 1936 and 1939, 662,000 people were examined across Eastern Thrace, 205,000 blood tests were conducted, and 206,000 malaria patients were treated. A total of 1,958 kilograms of quinine was used in these

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treatments. Alongside medical interventions, land reclamation works were carried out by the Public Works Committee, which mobilised local labour under the authority granted by law. By December 1938, a total of 39,557 metres of canal and 120,112 metres of small water channels had been dug in the region. As a result of these large-scale efforts, 2,237 hectares and 8,564 square metres of marshland were drained and made suitable for cultivation.

Keywords: Malaria, Eastern Thrace, Thrace Malaria Combat Organisation

I. Introduction

Humanity's encounter with epidemics has largely emerged as a by-product of its attempts to extend control over nature. The spread of agriculture, the systematic cultivation of the soil, and the domestication of animals such as cattle and sheep introduced human communities to pathogens to which they had not previously been exposed. In this process, agricultural activities -which became the centre of daily life- enabled various viruses, bacteria, and fungi to infiltrate human settlements. The establishment of new settlements to meet the needs of a rapidly growing population, the conversion of forests into farmland, and efforts to regulate drinking and irrigation water resources led to profound changes in ecological balances. This degradation of the natural environment not only produced ecological consequences but also paved the way for epidemics that shaped the course of human history and, at times, disrupted social structures. Malaria is one of the epidemic diseases that has persisted from the earliest periods of history to the present day. It is a febrile infectious disease caused by Plasmodium parasites, transmitted primarily through the bites of female Anopheles mosquitoes. After entering the human body through a mosquito bite, the parasite first reaches the liver, where it multiplies, and then invades the red blood cells, spreading the infection throughout the body[1].

Malaria was regarded as a disease of unknown origin until the late nineteenth century, during which only symptomatic treatments were available. In 1880, the French physician Alphonse Laveran was the first to demonstrate that malaria was caused by a microscopic parasite. Serving as a military doctor in Algeria, Laveran observed the parasite in the blood of a malaria patient, thereby proving that the disease was microbial in nature. In 1898, Dr Ronald Ross discovered that infected mosquitoes transmitted avian malaria through their saliva. Around the same time, the Italian scientist Giovanni Battista Grassi established that malaria was transmitted from mosquitoes to humans. Grassi

[1] Özgün 2017, p. 1-2.

further demonstrated that only Anopheles mosquitoes were capable of carrying malaria, thus making a crucial distinction[2]. These discoveries marked a turning point in the fight against malaria, as it became clear for the first time that the disease was spread by an environmental vector. At the beginning of the twentieth century, two main strategies were adopted to combat malaria. The first involved eliminating mosquito habitats that hosted the parasite, while the second focused on treating individuals with drugs that alleviated the symptoms of the disease. The principal drug employed in the treatment of malaria was quinine, which had been used since the early nineteenth century. European colonial administrations, in particular, encouraged its use to prevent the onset of the disease, stockpiling it to protect civil servants and soldiers stationed in tropical regions[3].

Malaria stands out among the infectious diseases inherited from the late Ottoman period, both in terms of its prevalence and its economic and social impacts. During the Balkan Wars and the First World War, nearly three-quarters of the population suffered from malaria[4]. With its high prevalence, lethality, and significant social impact, malaria directly affected not only individual health but also agricultural activities, migration patterns, and military structures. Eastern Thrace, with its geography rich in marshlands and water sources, provided fertile ground for the spread of this disease. The agricultural basins around the Meriç, Ergene, and Tunca rivers offered ideal breeding grounds for mosquitoes, which increased the prevalence of the disease. The wet structure and marshy areas of the Eastern Thrace region caused malaria to be seen intensely, deeply affecting both agricultural production and settlement patterns. The efforts to combat malaria carried out within the framework of the health policies of the 1930s included not only the eradication of the disease, but also the organisation of modern health institutions in the field. This study examines these efforts through periodicals and literature of the time, showing that the process was not merely about eradicating a disease but also demonstrated how the modern state's health policies were implemented in practice.

II. Institutional Structuring in the Fight against Malaria in the First Years of the Republic

To ensure the regular and effective delivery of health services, a bureaucratic structure was established during the years of the National Struggle. Within this framework, the Ministry of Health and Social Assistance was founded on 3 May 1920, with Dr Adnan (Adıvar) Bey appointed as its first minister. Following Dr Adnan's resignation on 10 March 1921, Dr Refik (Saydam) assumed the position. During his tenure, a national health budget was prepared

[2] Talapko, Škrlec, Alebić, Jukić, Vćev 2019, p. 7.
[3] Roy 2012, p. 75; Gachelin, Garner, Ferroni, Tröhler, Chalmers 2017, p. 73.
[4] Aydın 1998, p. 7.

for the first time, and the Department of Health Protection, the Registry Department, and the Accounting and Records Office were established within the central organisation. At the provincial level, the health directorates, government medical offices, municipal and quarantine medical offices, and minor health offices -institutions inherited from the Ottoman administrative structure- were reorganised. The Rabies Treatment Centre and the Vaccination Centre were also put into operation during this period, aiming to advance preventive health services. Following Dr Refik Bey's resignation at the end of 1921, Dr Rıza Nur, the Member of Parliament for Sinop, was appointed Minister of Health on 24 December 1921. Later, during the government of Fethi (Okyar) Bey (21 November 1924-4 March 1925), Dr Mazhar (Germen) Bey held this position. Dr Refik Bey was reappointed as Minister of Health on 4 March 1925 and continued in this capacity without interruption until October 1937. During Saydam's long tenure, the health organisation acquired a corporate structure, and the Refik Saydam Institute of Public Health was established to meet the country's growing needs for medicines and vaccines[5].

As Türkiye embarked on bureaucratic restructuring in the field of health, malaria emerged as one of the key challenges to be addressed. Referring to this issue in his opening address to parliament on 1 March 1923, Mustafa Kemal Pasha stated:

> "Measures are being taken against malaria, syphilis, and tuberculosis, which are significant in terms of infectious disease rates and cause even greater destruction in our country. Although it cannot be claimed that any single measure is sufficient against the spread and severity of malaria in our country, a stock of nearly a thousand kilograms of State quinine cubes (quinine medicine), produced at the Istanbul Chemical Laboratory -undoubtedly a very effective remedy- has been prepared for distribution to all districts through the Agricultural Bank, and 250 kilograms of quinine have been distributed free of charge. Furthermore, with the surplus funds remaining from last year's allocation, an additional thousand kilograms of quinine have been ordered from external sources. As soon as natural conditions permit, it will be among the most necessary and important of our beneficial and health-related actions to begin the work of drainage and land reclamation, which is the only solution for eradicating malaria and for improving health conditions in towns and villages.[6]".

[5] Aydın 2024, p. 152.
[6] Türkiye Büyük Millet Meclisi Zabıt Ceridesi (TBMMZC) 1961, p. 7.

The fight against malaria was also incorporated into the programme of the Fethi Bey government, which was formed in August 1923. Although the government's political life was short-lived, lasting only a few months, it is notable for having recognised the fight against malaria as a national priority. Fethi Bey outlined the government's approach with the following statement:

> "The belief that tuberculosis and syphilis are the most destructive diseases in our country has been mistakenly spread. However, malaria is the most significant health disaster in our country. This disease is a scourge upon our homeland and our nation. It is our greatest social problem. The Ministry of Health will devote its greatest efforts to this issue. However, the solution to this problem requires expenditures amounting to millions. This is not possible with a weak budget. Therefore, the Ministry of Health's work in this field will unfortunately have to remain limited in both quality and quantity in 1924.[7]"

In 1924, efforts began to establish a legal framework for the fight against malaria and to define the main outlines of the policies to be implemented. In October of that year, a meeting was held in Istanbul under the chairmanship of Health Minister Refik Saydam, bringing together physicians from various health institutions, and a report was prepared at its conclusion. This report was a comprehensive document addressing the technical, medical, financial, administrative, social, cultural, organisational, and legal dimensions of malaria control. It also underscored the economic consequences of population and labour losses caused by the disease, emphasising the urgent need for Türkiye to undertake a determined campaign against malaria. Serving as the explanatory memorandum for the proposed malaria law, the report was submitted to the Grand National Assembly of Türkiye[8]. The draft law, prepared toward the end of the same year, was approved by the Council of Ministers on 26 December 1924 and forwarded to the Assembly. However, after being placed on the parliamentary agenda, lengthy discussions and proposed amendments delayed the legislative process[9]. Finally, on 13 May 1926, The Malaria Combating Act No. 839 was adopted and enacted[10].

An examination of the provisions of the Twenty-One Article Malaria Combating Act reveals that, in the early Republican period, the fight against malaria was approached not only from a medical standpoint but also from social and administrative perspectives. The Ministry of Health and Social Assistance

[7] Çakmak 2017, p. 428.
[8] Temel 2008, p. 70.
[9] Tekir 2017, p. 402.
[10] Resmi Ceride, 29 May 1926, No: 384, p. 1-3.

was charged with establishing malaria control committees in affected regions and providing training for healthcare personnel working in laboratories, hospitals, and dispensaries. It was also envisaged that other state institutions would support these efforts. Free quinine and similar medicines were to be distributed to poor peasants, day labourers, residents of malaria-endemic areas, and other groups deemed in need. Mosquito breeding grounds were to be eradicated, and, under specific regulations, the creation of puddles, ponds, and pools was prohibited in cities, towns, and villages. The draining of swamps and puddles was assigned to local authorities, with the associated financial burden to be met by village councils or municipalities, either through cash payments or labour contributions. Individuals under the age of fifteen and over sixty-five were exempted from these obligations. In areas lacking sewage systems, the construction of covered pits for toilet and dishwater was made mandatory, and municipalities were required to establish sewage systems within two years. The law also authorised the relocation of villages in regions where malaria could not be eradicated quickly to healthier areas designated by the state[11].

Within the framework of the adopted law, the fight against malaria was conducted along three main axes: first, the treatment of patients carrying the parasite in their blood; second, isolating individuals with malaria from Anopheles mosquitoes to prevent further transmission; and third, eliminating the breeding grounds of Anopheles mosquitoes by draining swamps. Within this scope, an institutional structure was established under the Ministry of Health and Social Assistance, and the Malaria Combating Organisation was created to operate within the General Directorate of Public Health. Even before the Malaria Law was enacted and the organisation formally established, service units tasked with combating malaria were opened in Ankara, Adana, and Aydın in 1925. These units both carried out Malaria Combating Activities and trained healthcare personnel responsible for the campaign. The number of control centres gradually increased, reaching eleven by 1932 with the opening of new centres in Eskişehir, Konya, Bursa, Manisa, Kocaeli, Samsun, Antalya, and Istanbul. During 1936-1937, the number rose to sixteen with the establishment of additional centres in Eastern Thrace, Balıkesir, Seyhan, Kayseri, and Diyarbakır, ensuring that the campaign extended across the entire country[12].

III. Malaria Control Process in Eastern Thrace in the 1930s

In the early years of the Republic, malaria was a widespread public health problem in the Eastern Thrace region. Large-scale rice cultivation, in particular, made the districts of İpsala and Enez among the areas most severely affected by

[11] Resmi Ceride, 29 May 1926, No: 384, p. 1-3.
[12] Tuğluoğlu 2008, p. 355; Aydın 1998, p. 15-17.

the disease. Locals referred to the rice fields as "mosquito heaven." This situation paved the way for a sharp increase in the mosquito population and, consequently, the spread of malaria throughout the region. In addition, Lake Gala in Enez constituted an important breeding ground for mosquitoes, which facilitated the spread of malaria. Another area in Eastern Thrace affected by malaria was the Black Sea coast of Kırklareli, particularly around Kıyıköy and İğneada, where the disease sometimes reached epidemic proportions. On the other hand, malaria cases were also considerable in the lowland areas of the region. All these factors caused Thrace to be a region where malaria was prevalent[13]. Dr İbrahim Tali Öngören, appointed as the General Inspector of Thrace, included the following observations on the presence of malaria in Eastern Thrace in his 1934 inspection report:

> "I observed malaria breeding grounds in almost every corner of the Thrace region. The main sources of malaria are the Meriç, Ergene, and Menderes River basins. Because the bends of these rivers have not been cleaned, their flow has slowed -particularly at their mouths- resulting in the formation of increasingly extensive swamps. These marshlands serve as ideal breeding grounds for malaria. It has now become imperative to begin combating the disease in the marsh areas created by these rivers. The issue concerns saving the population from the danger of malaria, restoring their health, preventing the expansion of the marshes, and, if possible, protecting agricultural land. In general terms, it can be said that the health situation in Thrace requires, above all else, an intensive fight against malaria.[14]".

In the early years of the Republic, the general panorama of malaria in Eastern Thrace was outlined above. The Thrace Malaria Combating Organisation, which would lead the fight against malaria in the region, was established in July 1936 under the authority of the Thrace General Inspectorate[15]. The duties of the provincial Malaria Combating Organisations included examining the population at certain times of the year, treating those who contracted the disease, combating mosquitoes and their larvae, and eliminating sources of infection. The areas of responsibility of the personnel working within the organisation were also defined in a hierarchical order. Regional directors were responsible for all scientific and administrative activities in their regions, regularly inspecting local branches and issuing necessary instructions. Branch directors, who were malaria control physicians, travelled to villages to establish

[13] Kazancıgil 2009, p. 49.
[14] Burgaç 2013, p. 331.
[15] Burgaç 2013, p. 332.

direct contact with the population, ensure the regular treatment of patients, and organise mosquito control activities. Malaria control officers and health protectors periodically visited villages to distribute medicines, spray DDT, and carry out cleaning operations. Thus, thanks to an organisational structure extending from the centre to the provinces, the fight against malaria was pursued both administratively and practically[16]. The provincial Malaria Combating Organisations were headed by a president[17]. After the establishment of the Thrace Malaria Combating Organisation, İzzet Niyazi Bey, head of the Konya Malaria Combating Organisation, was appointed as its president[18]. Dr İzzet Bey held this position until his appointment as head of the Bursa Malaria Combating Organisation on 5 March 1941[19]. Other physicians working at the central branch of the Thrace Malaria Combating Organisation during the 1930s included Dr Fethullah Cevat Baykal, Dr Ali Hüseyin Sunaş, and Dr İrfan Naili Köksal[20]. Malaria laboratories were established under the regional presidencies, each employing a chief and a varying number of officials according to need[21]. The laboratory of the Thrace Malaria Combating Organisation was established in Edirne and headed by Ali Rıza Birgen[22], while other personnel requirements were met from Istanbul[23].

The organisation promptly commenced its activities and, by August 1936, had examined 58,495 individuals, 21,695 of whom were treated for malaria. Within just a month and a half of its establishment, it distributed 205 kilograms of quinine free of charge[24]. During this period, blood samples were collected from 16,335 people and sent to the laboratory for analysis[25]. Another important aspect of the organisation's work was the improvement of malaria-prone areas. A technical committee operated under the authority of the Malaria Combating Organisation, conducting investigations in regions with swamps and waterways that served as breeding grounds for mosquitoes. The committee determined the appropriate drainage methods for each swamp and initiated drainage operations accordingly. In this process, support was also received from the local community in accordance with The Malaria Combating Act[26]. Following this principle, in the latter half of 1936, areas along the Meriç River

[16] Aydın 1998, p. 18.
[17] Aydın 1998, p.17.
[18] Ulus, 2 July 1936, p. 2.
[19] Kazancıgil 2009, p. 54.
[20] Kazancıgil 2009, p. 56.
[21] Aydın 1998, p. 17.
[22] Edirne Postası, 24 February 1940, p. 1.
[23] Anadolu, 10 July 1936, p. 2; Ulus, 10 July 1936, p. 2.
[24] Haber, 23 November 1936, p. 2; Kurun, 24 November 1936, p. 4.
[25] Anadolu, 24 November [1]936, p. 3.
[26] Burgaç 2013, p. 332-334.

that had become breeding sites for malaria were reclaimed, and measures were taken to prevent winter flooding of the Tunca River[27].

General Inspector of Thrace Kazım Dirik working with villagers

The year 1937 marked the beginning of tangible results from the marsh drainage efforts. In Edirne, the areas surrounding Sazlıdere were among the most severely affected by malaria. Although the riverbed was densely overgrown with reeds, the stream disappeared approximately fifteen kilometres from the Meriç River, causing its waters to spread across the plain and form large stagnant pools. These pools became breeding sites for mosquitoes, leading to widespread malaria in the neighbouring villages. To protect the local population from this situation, it was decided to reopen the course of Sazlıdere and divert its waters into the Meriç River as part of the anti-malaria campaign. Work began immediately under the project designed by the technical committee of the Malaria Combating Organisation. The channel of Sazlıdere, which threatened the health of seven

[27] Anadolu, 18 October [1]936, p. 3.

nearby villages, was reopened starting from its confluence with the Meriç River, and the excavation of an eight-kilometre section was completed in 1937. General Kazım Dirik, the General Inspector of Thrace, and Niyazi Mergen, the Governor of Edirne, visited the site to inspect the progress and even joined the villagers in clearing and digging the canal with shovels and pickaxes[28].

In 1937, malaria control branches were established in Keşan, Hayrabolu, Çorlu, Lüleburgaz, Meriç, and Uzunköprü, each staffed with a physician and a health officer. Dr M. Faik Ahmet Artun was appointed to the Keşan branch, Dr O. Halit Ali Başkol to Hayrabolu, Dr Fahri Abdülveli Ecteğini to Çorlu, Dr Mutahhar Ahmet Yenson to Lüleburgaz, and Dr Hüseyin Özkan to Uzunköprü[29]. With the opening of these new branches, the number of villages identified as malaria-combating areas increased from 121 in 1936 to 213 in 1937. The organisation also extended its operations to İğneada, located outside the main malaria control zone. Making use of the special provisions of The Malaria Combating Act, 27 hectares and 817 square metres of marshland were drained with the participation of the local population to eliminate stagnant pools and swampy areas that served as breeding sites for mosquitoes carrying the malaria parasite. A total of 6,675 metres of drainage channels were excavated, and 6,454 cubic metres of pits and ditches were filled. Additionally, four large dams were reconstructed at the confluence of the Ergene and Meriç rivers. In the same year, 66,889 individuals were examined, and 20,997 were treated for malaria[30].

Another malaria-prone area in Eastern Thrace where improvement works began in 1937 as part of malaria control efforts was the Çimli Göl marshland, located approximately two kilometres from the town of Hayrabolu and covering an area of about 2,500,000 square metres. This marshland had long been a constant source of malaria for Hayrabolu and its surroundings. Intensive work was undertaken in the region as part of the anti-malaria campaign. In accordance with the Malaria Law, 600 taxpayers in Hayrabolu worked for five days each, and within about a month a canal measuring 9,500 metres in length and 4 metres in width was excavated. The waters of Çimli Göl were diverted into the Hayrabolu Stream, saving the town and its environs from the threat of malaria[31]. During this process, the close attention of the Ministry of Health and the General Inspector of Thrace, General Kazım Dirik, combined with the tireless efforts of Dr İzzet Arkan and his colleagues at the head of the combat organisation, as well as the active participation of the local population, played a decisive role in ensuring the successful and rapid implementation of this major public health initiative.

[28] Cumhuriyet, 15 September 1937, p. 7; Yeni Asır, 23 November 1937, p. 4.
[29] Kazancıgil 2009, p. 56.
[30] Yeni Asır, 30 September 1937, p. 6; Yeni Asır, 23 November 1937, p. 6.
[31] Yeni Asır, 23 November 1937, p. 6; Ulus, 25 November 1937, p. 6.

According to the data provided by Dr İzzet Arkan, in that year alone a total of 19,022 metres of main channels and 6,395 metres of smaller drainage channels were opened, 2,070,000 square metres of swamp area were drained, and 13,368 square metres of old and new adobe pits were filled. In addition, as an important aspect of the programme, the streams in the area were cleaned and a total of 55,135 metres of riverbeds were regulated. Stream cleaning was particularly significant for preventing the proliferation of mosquitoes that resulted from flooding and stagnant water in the Meriç and Ergene river basins. Concurrently with these engineering works, malaria patients in the villages were treated by health officers who visited on a weekly basis. By the end of October 1937, 86,918 people had been examined, of whom 25,003 were diagnosed with malaria. In total, 33,402 patients received treatment; 369,438 grams of quinine were distributed free of charge; 842 individuals were treated with injections; 42,252 blood tests were performed; and 39,914 doses of sweet sulphate were administered to children[32].

Lake Çimli and after the opening of the canal

According to the Thrace Statistical Yearbook prepared by the Statistics Office of the Thrace General Inspectorate, malaria-related deaths in the region between 1931 and 1937 are shown in the following table.

[32] Yeni Asır, 23 November 1937, p. 6; Ulus, 25 November 1937, p. 6.

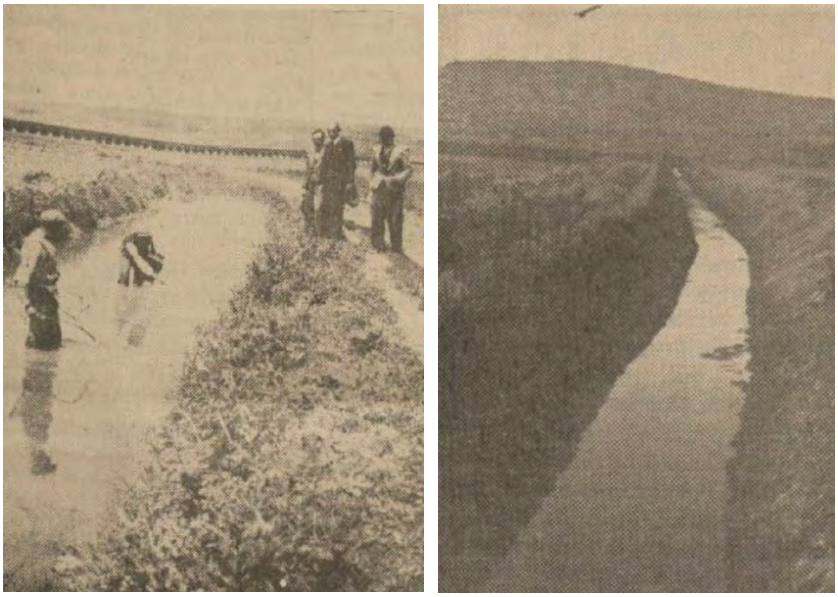
Table 1: Malaria Mortality in Eastern Thrace between 1931-1937[33]

Year	Edirne	Kırklareli	Tekirdağ	Total
1931	3	1	7	11
1932	–	5	18	23
1933	25	8	12	45
1934	16	12	9	37
1935	10	26	22	58
1936	38	23	23	84
1937	12	5	8	25
Total	104	80	99	283

Between 1931 and 1937, deaths caused by malaria in Eastern Thrace followed a fluctuating pattern. While only eleven deaths were recorded in 1931, the number increased in the following years, reaching a peak of eighty-four in 1936. This sharp rise demonstrates that malaria had become a significant social threat in the region. The establishment of the Thrace Malaria Combating Organisation in the same year was a direct response to the scale of this problem. Notably, the data for 1937 indicate that the organisation's efforts produced a rapid effect: the number of deaths fell from eighty-four to twenty-five within a year, representing a reduction of nearly one-third.

A news report published in the press in May 1938 stated that the Thrace Malaria Combating Organisation had examined 177,744 people across 134 villages and 10 districts during the previous year. Of these, 54,888 malaria patients were treated, and blood tests were conducted on 65,933 individuals. A total of 582 kilograms of quinine, 1,680 strong compresses, and 71,626 sweet sulphates were distributed to patients, while 1,067 individuals suffering from advanced stages of the disease received injections. Meanwhile, anti-mosquito campaigns continued without interruption; kerosene and insecticide were sprayed in households, and mosquito swarms were systematically destroyed[34].

[33] İstatistik Genel Direktörlüğü, Trakya Umum Müfettişliği İstatistik Bürosu, *Trakya İstatistik Yıllığı*, Cit-II, 1939, Ankara Basım ve Ciltevi, Ankara, 1939, p. 54.
[34] Anadolu, 11 May [1]938, p. 4.



Trenching works and a trench in Eastern Thrace

In the first half of 1938, work was completed on the new bed of the Sazlıdere Stream, which had begun in 1937, extending as far as the village of Karakasım. Once the remaining section was finished, it was planned to discharge the waters of the Sazlıdere directly into the Meriç River. Within the district centre of Havsa, one of the small lakes was drained into the Havsa Stream, while the others were filled in and eliminated. As a result, the Havsa district centre was freed from the threat of malaria[35]. The gradual extension of the canal towards the Gülbaba marsh led to a steady reduction in its size. In areas where agriculture had been impossible for years, sugar beet was cultivated for the first time in 1938 on the Değirmen Yeniköy side. After the Gülbaba marsh was drained, approximately 4,000 acres of land became suitable once again for agricultural activities[36]. Similarly, İğnesi (Yolüstü) Village Lake and the Kerpiç River in Hatip Village were drained into the Tunca River through canals, and other malaria-prone areas across the region were also reclaimed. By June 1938, land improvement works carried out in the Thrace Malaria Combat Region included the excavation of 4,642 metres of canal, the drainage of 115,170 square metres of marshland, and the cleaning of 8,200 metres of stream beds. In addition, two bridges were

[35] Edirne Postası, 15 June [1]938, p. 1.
[36] Ulus, 18 December 1938, p. 6; Cumhuriyet, 18 December 1938, p. 8.

constructed, and a 4,032-metre-long embankment was built along the Meriç River[37].

According to press reports, the number of staff of the Thrace Malaria Combating Organisation was expanded in 1938 compared with previous years. In June, the Organisation drained the 15-hectare İğnesi Lake, an important area in Edirne, into the Tunca River via a canal. The Sazlıdere Canal was extended by 1,769 metres, and the old, large mud lakes around Havsa were completely filled in. Some of the lakes in the villages of Nadırlı and Sinanlı in Babaeski were drained, while others were filled and eliminated. Many lakes in the Keşan district were also cleaned. The work carried out in other branches can be summarised as follows: during June, a further 5,719 metres of canal and 2,295 metres of small water channels were opened. In addition, 1,400 metres of canal and 11,789 metres of small water channels were cleaned. As a result of these efforts, the total area of drained marshland reached 4,542,522 square metres. In the same month, 32,795 cubic metres of water-filled pits were filled, and 45,230 metres of stream beds were cleaned. The fight against mosquitoes also continued uninterrupted during this period. Furthermore, in June, 40 kilograms and 306 grams of Meccani quinine compresses, and 5,663 sweet and heavy sulphate compresses were distributed, while 74 quinine ampoules were administered. For mosquito control, 100 kilograms of diesel fuel and 56 kilograms of pure Paris green were used[38].

As part of the malaria control efforts, articles written by Dr. İzzet Arıkan, Head of the Malaria Control Department, were published in the local press to raise public awareness. Thus, while combating mosquitoes and draining swamps on one hand, efforts were also made to educate the public, thereby encouraging active participation in the fight against malaria[39].

In 1938, a total of 39,557 metres of canals and 120,112 metres of small water channels were constructed across Eastern Thrace. As a result of these major undertakings, 2,237 hectares and 8,564 square metres of marshland were drained and rendered suitable for agriculture. The reeds surrounding the drained marshes were burned in an effort to eliminate mosquito habitats and permanently remove potential breeding grounds. In addition, 51,036 cubic metres of accumulated water pits were filled, 119 kilometres of streams were cleaned, and six bridges along with 4,076 metres of embankments were built. Moreover, by December 1938, 117,709 people had received treatment in Eastern Thrace. For this purpose, 1,410 kilograms of quinine and 192 kilograms of sweet sulphate were distributed, and 2,336 quinine ampoules were administered. The mosquito control operations continued uninterrupted throughout both winter and summer: during the winter,

[37] Akşam, 17 June 1938, p. 5; Yeni Asır, 17 June 1938, p. 4; Son Posta, 17 June 1938, p. 5; Anadolu, 21 June [1]938, p. 2; Ulus, 23 June 1938, p. 6; Haber, 2 July 1938, p. 6.
[38] Edirne Postası, 13 July [1]938, p. 1; Son Posta, 16 July 1938, p. 5; Tan, 20 July 1938, p. 8.
[39] Kazancıgil 2009, p. 52.

6,158 litres of Whiz liquid were used to combat adult mosquitoes, while in the summer, 373 kilograms of Paris green and 4,189 kilograms of diesel fuel were employed to destroy larvae[40].

It is possible to trace almost step by step the efforts made in the fight against malaria in Eastern Thrace through the press of the period. While numerous reports on anti-malaria campaigns in Eastern Thrace appeared between 1936 and 1938, by 1939 the situation had changed: apart from a few short news items concerning appointments to the Thrace Malaria Combating Organisation, reports on malaria virtually disappeared from the press. This suggests that the comprehensive efforts carried out between 1936 and 1938 had achieved considerable success and that malaria cases had decreased substantially. However, data from the 1939 Statistical Yearbook of the Prime Ministry's General Directorate of Statistics indicate that, although malaria cases in Eastern Thrace had declined compared to the previous year, the disease had not been completely eradicated. Therefore, the decline in press coverage in 1939 should be interpreted not as evidence of malaria's disappearance, but rather as a reduction in newspapers interest in the issue. The following table presents key statistical data on the fight against malaria in Eastern Thrace between 1936 and 1939, compiled from the Statistical Yearbooks of the Prime Ministry's General Directorate of Statistics:

Table 2: Data on Malaria Control in Eastern Thrace between 1936-1939[41]

Year	Number of people examined	Number of people who underwent blood examination	Treated malaria patients	Number of people to whom quinine was distributed	Amount of quinine consumed / kg.
1936	115000	33000	37000	-	377
1937	164000	52000	55000	1000	583
1938	216000	54000	59000	-	571
1939	167000	66000	55000	-	427
Total	662.000	205.000	206.000	1000	1958

[40] Ulus, 18 December 1938, p. 6; Cumhuriyet, 18 December 1938, p. 8.

[41] Başbakanlık İstatistik Umum Müdürlüğü, *İstatistik Yıllığı*, Cilt 11, 1939-1940, Hüsnütabiat Basımevi, İstanbul, p. 170; Başbakanlık İstatistik Umum Müdürlüğü, *İstatistik Yıllığı*, Cilt 10, 1938-1939, Hüsnütabiat Basımevi, İstanbul, p. 141; İstatistik Genel Direktörlüğü, Trakya Umum Müfettişliği İstatistik Bürosu, *Trakya İstatistik Yıllığı*, Cit-II, 1939, Ankara Basım ve Ciltevi, Ankara, 1939, p. 190.

The data in the table show that between 1936 and 1939, there was a marked increase in malaria combat efforts in Eastern Thrace, accompanied by greater institutional regularity. While 115,000 people were examined in 1936, this number rose to 216,000 in 1938. This rise indicates that health services expanded rapidly throughout the region and that public participation in screening activities increased. In 1939, however, a slight decrease occurred, probably reflecting fluctuations in the intensity of screening campaigns. The number of people undergoing blood tests increased steadily each year -from 33,000 in 1936 to 66,000 in 1939- showing that laboratory-based diagnostic methods had become increasingly widespread. Similarly, the number of malaria patients treated rose consistently from 37,000 in 1936 to 59,000 in 1938. Although it declined slightly to 55,000 in 1939, the overall treatment rate remained high. The amount of quinine used also reflects the intensity of anti-malaria activities. While 377 kilograms were used in 1936, the figure climbed to 583 kilograms in 1937 before falling to 427 kilograms in 1939. These fluctuations indicate that the drug-based component of the campaign peaked in 1937-1938, followed by a relative reduction in 1939. Overall, the data demonstrate that health activities in the region expanded rapidly in quantitative terms following the establishment of the Thrace Malaria Combating Organisation in 1936. The general increase in the number of people examined, blood tests conducted, patients treated, and the amount of quinine distributed shows that a well-organized and effective malaria control system had been successfully implemented between 1936 and 1938.

Various numerical data on the fight against malaria can be obtained from both contemporary press sources and the annual reports of the Prime Ministry's General Directorate of Statistics. However, these figures should not be regarded as definitive or absolute. The data in the statistical yearbooks are generally rounded whole numbers without decimals; thus, they provide only an approximate indication of the quantitative dimension of Malaria Combating Activities rather than the exact numerical reality. In contrast, the numerical information appearing in the press does not follow a standard annual reporting format, and the figures presented for each year often cover only part of that year. For instance, the examination data for 1936 include only the first few months of the campaign -specifically August- and therefore cannot represent the entire year. Similarly, while one newspaper article states that 86,918 people were examined by the end of October 1937, another gives a different total for the same year. This discrepancy illustrates the fragmented nature of the data, even within a single reporting period. The most significant methodological issue arises from the overlap between the time periods covered by different reports. For example, a news published in May 1938 stated that 177,744 people had been examined "over the past year." This "one-year period" naturally includes a substantial portion of the 1937 data. Therefore, simply summing up these fragmented figures from

various years would result in double counting the same individuals and activities, leading to inaccurate and misleading conclusions. By contrast, the information that 117,709 people were treated, 1,410 kilograms of quinine were distributed, and 2,336 injections were administered "up to December 1938" is explicitly presented as a cumulative total. This makes it more reliable than year-specific figures. Consequently, the data reported in the press should be viewed not as systematic statistical records, like those in the official yearbooks, but rather as products of the journalistic practices of the period and the immediate statements of local health authorities. In summary, press figures should be interpreted as supplementary information that reflects the public perception and awareness of the malaria campaign rather than precise statistical data. Although comprehensive quantitative evidence for the entire period under review is unavailable, the canal construction, swamp drainage, and treatment of more than 100,000 people clearly demonstrate the scale and significance of the malaria control efforts in Eastern Thrace.

III. Conclusion

The combat against malaria in the Eastern Thrace region not only resolved a major public health problem but also constituted a development initiative that fundamentally transformed the region's geographical landscape and agricultural economy. The agricultural basins and wetlands surrounding the Meriç, Ergene, and Tunca rivers made Eastern Thrace an ideal breeding ground for mosquitoes, facilitating the spread of malaria throughout the region. As noted in the 1934 report by Dr İbrahim Tali Öngören, General Inspector of Thrace, almost every corner of the region had become a malaria hotspot. Draining these swamps was therefore imperative not only to protect public health but also to recover valuable agricultural land. In response to this necessity, organised malaria combat efforts began in July 1936 with the establishment of the Thrace Malaria Combating Organisation. This campaign developed along two main axes: first, the detection and treatment of individuals carrying the malaria parasite, and second, the elimination of mosquito breeding grounds that sustained the disease. Within this framework, while hundreds of thousands of people were examined and tens of thousands treated, an extensive programme of engineering and land reclamation was simultaneously undertaken. The most tangible outcome of these efforts was the large-scale drainage of swamps and their conversion into productive farmland. Vast marshes such as Çimli Göl in Hayrabolu were drained through the excavation of kilometres of canals, riverbeds such as Sazlıdere were regulated, and stagnant water areas in villages were eliminated. The drainage of 2,237 hectares of marshland and its conversion into arable land in 1938 alone illustrates the immense geographical scope and economic significance of the campaign. Concrete examples, such as the reintroduction of sugar beet cultivation

around the Gülbaba marsh -where farming had been impossible for years- demonstrate the direct contribution of these efforts to regional agricultural development. Thus, the fight against malaria in Eastern Thrace represents not only an example of how the modern Turkish state effectively implemented its public health policies at the local level but also a historical case of transforming a public health challenge into a land reclamation and rural development project. This process simultaneously safeguarded human health and altered the region's destiny by integrating previously idle natural resources into the national economy. The anti-malaria campaign in Eastern Thrace, therefore, should be viewed not merely as a medical initiative but as a comprehensive development enterprise that reshaped both the physical and economic landscape of the region.

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