Translation and the Making of a Medical Archive:
The Case of the Islamic Translation Movement

*by Ahmed Ragab**

ABSTRACT

Translation has occupied a central role in the historiography of Islamic science and medicine, and the "Translation Movement" from Greek to Arabic is often considered the birth moment of the "Golden Age." In this view, translation is understood as a transition in which knowledge moves across a linguistic divide. However, this translation-as-transition paradigm fails to capture the linguistic diversity that existed on both sides of this seeming divide, and the production and consumption of this translated knowledge and its diffusion beyond the spheres of learned scientific and medical practice. In this article, I look at translation in the history of Islamic medicine not as a transition but rather as a part of a larger and more comprehensive process of archive making. Through following the works of translators and historians, I investigate how translation contributed to the production of a particular form of learned medicine.

INTRODUCTION

It is hard to think of a concept or a historical moment more significant to the study of Islamic sciences and medicine than translation. Traditional accounts of Islamic sciences begin with the translation of classical Greek texts into Arabic, a process roughly dated to the first half of the ninth century.[1] The "Translation Movement" is seen as a moment of birth for learned Islamic cultures because it linked these cultures to a long history of Hellenism, which, the traditional narrative argues, had declined in the Byzantine context and survived only in the Islamic world, and in Arabic.[2] The conventional account perceives translation not as a process in which knowledge moves from one linguistic tradition into another but rather as a process of encapsulation. In this telling, Arabic was not a true home for Hellenistic knowledge but rather

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[1] David Lindberg, *The Beginnings of Western Science: The European Scientific Tradition in Philosophical, Religious, and Institutional Context, Prehistory to AD 1450* (Chicago: Univ. of Chicago Press, 2007).

[2] Ibid.

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a casing that protected this knowledge for centuries until it found a new home in Latin. The idea of translation as encapsulation legitimized and motivated a wealth of scholarly works on the survival of Greek texts in Arabic and on the spread of these texts. Although these traditional accounts have been critiqued and questioned by many scholars, they have continued to shape public conversation, teaching, and archival restoration projects with the result that the Translation Movement is still considered by most nonspecialized narratives as the true beginning of scientific and medical learned culture in the medieval Islamic world.[3] The effects of this focus become obvious when we observe the almost complete absence of pre-ninth-century, or pre-translation, history of Islamic sciences in most history of science textbooks, or when we compare the pages and scholarly energy dedicated to the periods before and after the translation.[4]

These traditional narratives have come under significant scholarly criticism. Abdelhamid Sabra has proposed *appropriation* as a different way of thinking about the relationship between the Greek and Islamic sciences.[5] Chase F. Robinson and Konrad Hirschler have provided compelling accounts of Islamic historiography that challenge Franz Rosenthal's thesis on the emergence of Islamic historiography from Greek origins.[6] Dimitri Gutas has convincingly demonstrated the long history of Islamic philosophy and its flourishing well into the period of "decline."[7] Peter Pormann and others have studied the making of long commentary traditions on Greek medical texts.[8] I have mentioned but a few of the many who criticize traditional narratives, yet *translation*, as a key moment and an analytic that organizes the history of Islamic sciences, endures in popular discourse, in the West and in the Islamic world alike, and also in scholarly writings, even by way of criticism. Translation, therefore, is not simply a historical moment that merits a degree of analysis, but it is in fact a *chronology*. As a chronology, the Translation Movement forces engagement, even by asking readers to rectify, rearrange, or reconsider. And in the process, the textual logic that governs the conception of the *translation* half of the phrase, and the transmission/transfer paradigm that underwrites the *movement* part, become key gravitational points in scholarship and public discourse alike.

[3] One of the earliest and most profound critiques of the place of the Translation Movement in the scholarship was penned by Abdelhamid Sabra, who introduced the notion of *appropriation* as an alternative for *transmission*; see Sabra, "The Appropriation and Subsequent Naturalization of Greek Science in Medieval Islam: A Preliminary Statement," *Hist. Sci.* 25 (1987): 223–43.

[4] For instance, see Justin Stearns's discussion of the need to direct scholarly energy to the study of the early modern period; Stearns, "Writing the History of the Natural Sciences in the Pre-modern Muslim World: Historiography, Religion, and the Importance of the Early Modern Period," *History Compass* 9 (2011): 923–51.

[5] Sabra, "Appropriation and Subsequent Naturalization" (cit. n. 3).

[6] Chase F. Robinson, "History and *Heilsgeschichte* in Early Islam: Some Observations on Prophetic History and Biography," in *History and Religion: Narrating a Religious Past*, ed. Bernd-Christian Otto, Susanne Rau, Jörg Rüpke, and Andrés Quero-Sánchez (Boston: De Gruyter, 2015), 119; Robinson, *Islamic Historiography* (Cambridge, UK: Cambridge Univ. Press, 2003); Konrad Hirschler, *Medieval Arabic Historiography: Authors as Actors* (New York: Routledge, 2006).

[7] Dimitri Gutas, "The Heritage of Avicenna: The Golden Age of Arabic Philosophy, 1000–ca. 1350," in *Avicenna and His Heritage: Acts of the International Colloquium Leuven—Louvain-La-Neuve, September 8–11, 1999*, ed. Jules Janssens and Daniel De Smet (Leuven, Belgium: Leuven Univ. Press, 2002), 81–98.

[8] N. Peter Joosse and Peter Pormann, "Decline and Decadence in Iraq and Syria after the Age of Avicenna? ʿAbd Al-Laṭīf Al-Baghdādī (1162–1231) between Myth and History," *Bull. Hist. Med.* 84 (2010): 1–29; Pormann and Kamran I. Karimullah, "The Arabic Commentaries on the Hippocratic Aphorisms: Introduction," *Oriens* 45 (2017): 1–52.

Certainly, translations occupied an important place in the medieval Islamic intellectual imaginary. Biographical dictionaries of scholars provided space for translators, and many historians transmitted accounts that narrated the first translations to Arabic (scholarly or otherwise). However, as I will argue, translation was more than a textual or learned process. It was an integral part of knowledge making that built on an already existing scholarly tradition in the Near East, of which Greek knowledge was a part. Moreover, and as scholars have shown, translations were not only from Greek to Arabic. They also involved many other languages and contributed to a larger process of linguistic landscape reorganization in the emerging Muslim polities.[9] From this perspective, written translations, which form the backbone of the Translation Movement and are the key marker of its chronology, are but a limited aspect of a more widespread process that extended over centuries in a multilingual region and intellectual tradition.

In this article, I investigate the translation of medicine in the ninth century as part of the extended development of Islamic Galenism. First, through looking at narratives on the origins of the Translation Movement, I discuss the meaning of translation as a socioepistemic process and its connections to the making of Islamic Galenism. Second, looking closely at Ḥunayn ibn Isḥāq (d. 873), one of the more prominent medical translators, I investigate his intentions and how his work contributed to the production of what I describe as the Islamic Galenic archive. Finally, I look at how translation and archive making extend beyond the Greco-Arabic dyad. In the conclusion, I consider the place of the Translation Movement in Euro-American and Global narratives about the history of medicine, how translations produce relations of priority and derivation in the postcolonial context, and how the study of medieval translations can be influential in these debates.

TRANSLATION AS ARCHIVE MAKING

The oldest example of a written translation of a medical text is attributed to a Jewish physician of Syriac-Persianate origin, by the name of Masārjawayh. He may have translated a *kunnāsh* (textbook) composed by Aaron of Alexandria from Syriac to Arabic under the reign of the Umayyad caliphs Marwān I (r. 684–5) or Umar II (717–20). In the account of the Andalusian physician Ibn Juljul (d. ca. 994), Umar II was responsible for disseminating the translated *kunnāsh*:

> Masārjawayh was Jewish Syriac. He is the one who undertook the explanation of Aaron of Alexandria's [Ahrūn ibn al-Qiss] book to Arabic during the Marwanid reign. Umar ibn ʿAbd al-ʿAzīz found [the book] in the book cabinets and ordered it to be taken out and put in his prayer hall. He then consulted God [through prayer] whether to bring it out to the Muslims to benefit from it. When this happened [i.e., he felt that God supported this effort], he released it to the people and disseminated it among them.[10]

[9] See, for example, M. Shefer-Mossensohn and K. Abou Hershkovitz, "Early Muslim Medicine and the Indian Context: A Reinterpretation," *Medieval Encounters* 19 (2013): 274–99.

[10] Ibn Juljul, *Ṭabaqāt Al-Aṭibbāʾ Wa-Al-Ḥukamāʾ* (Cairo: Institut Français d'archéologie Orientale, 1955), 60. My translation: unless otherwise noted, the translations in this article are mine. Al-Qifṭī maintained that Masārjawayh translated the text during the reign of Marwan I; see ʿAlī ibn Yūsuf al-Qifṭī, *Tārīkh al-Ḥukamāʾ* (Leipzig: 1912), 324–5. Ibn Juljul reported this account on the authority of Abū Bakr Muḥammad ibn ʿUmar ibn al-Qūṭiyyah (d. 978), who was a well-known scholar in al-Andalus but who most likely never encountered ʿUmar II. On Ibn Juljul's biographical dictionary, see Cristina Álvarez Millán, "Medical Anecdotes in Ibn Juljul's Biographical Dictionary," *Suhayl* 4 (2004): 141–58.

Ibn Juljul's account indicates that Masārjawayh completed his translation earlier than the reign of Umar II, perhaps during the longer and more stable reigns of ʿAbd al-Malik ibn Marwān (r. 685–705) and his son al-Walīd I (r. 705–15), during which the minting of a new Umayyad coin as well as the building of the Umayyad mosque, the Aqṣā mosque, and the Dome of the Rock took place.

One of the key sources that many historians, both medieval and contemporary, relied on in understanding and documenting the histories of translation was a book catalog authored by Abū al-Faraj Muḥammad ibn Isḥāq al-Nadīm (d. 995). Ibn al-Nadīm (or al-Nadīm)[11] was born in Baghdad around 932 and was trained by some of the more prominent scholars of religious and linguistic sciences there. While the list of his teachers varies a bit from one account to another, it is clear that he was in contact with key translators, logicians, linguists, and religious scholars in Baghdad and beyond. He likely traveled to Kufa and Basra, both important intellectual centers in tenth-century Iraq, as well as to Aleppo and Mosul, where he collected manuscripts and sought key scholars. The epithets "al-Nadīm" (lit. "boon companion"; normally used to refer to courtiers) and "al-warrāq" (bookseller), which was also attached to his name, indicate that he had a prominent career both as a courtier and as a bookseller in Baghdad. In 987 he started composing the book for which he would be known: *Al-Fihrist* (The catalog). Recording what he believed to be the most important books in every discipline, he listed hundreds of books with biographies of their authors, translators, and patrons. He also explained how disciplines related to one another, and how a given branch of knowledge first appeared in Islamdom and in Arabic. While it is hard to verify many of his accounts, they represent the state of knowledge about these disciplines, authors, and books in tenth-century Iraq, providing us with the chance to better understand the intellectual history and the history of translation at the time.

According to the *Fihrist*, the first translations of scholarly writings were patronized by Khālid ibn Yazīd ibn Muʿāwiyah (d. 709).[12] Khālid was the son of the second Umayyad caliph, Yazīd I (r. 680–83); he briefly sought the caliphate throne after the abdication of his brother Muʿāwiyah II but failed in his bid against Marwān ibn al-Ḥakam (r. 684–5). Khālid was known to be interested in the sciences (especially alchemy) and was given the title the Wiseman of the Umayyads.[13] Ibn al-Nadīm explained that Khālid patronized Greek-speaking scholars in Egypt, especially those knowledgeable in alchemy, and ordered them to translate books from Greek and Coptic to Arabic for his benefit. Whether Khālid's patronage of translations was part of a larger trend within the Arabic-speaking political elites is unclear from Ibn al-Nadīm's accounts. In his account, the passage following Khālid ibn Yazīd's translations was not directly related to sciences. Rather, it involved the translation of the *Dīwān*, or the chancery records, in Iraq (from Persian to Arabic) and in the Levant (from Greek to Arabic). The chancery records (*al-dīwān*) likely referred to accounting and tax documents, which included valuation of land productivity for the purposes of taxation, as well as other political and financial records. Because Arab Muslim rulers inherited

[11] George Saliba has explained that the author in question may indeed be called "al-Nadīm" as opposed to "Ibn al-Nadīm." See Saliba, *Islamic Science and the Making of the European Renaissance* (Cambridge, MA: MIT Press, 2014).

[12] Mohammed ibn Ishaq ibn al-Nadīm, *Al-Fihrist* (Cairo: Hayʾat Quṣūr al-Thaqāfah, 2006), 1:242.

[13] Ibn al-Nadīm calls him "the Wiseman of the Marwanids" (ibid., 1:242). However, Khālid did not belong to the Marwānid clan.

such records from the Byzantines, in Egypt and the Levant, and from the Sassanids, in Iraq and Iran, the documents were kept in Greek or Persian, which forced the new rulers to rely on bureaucratic dynasties also inherited from pre-Islamic rule. The translation of the chancery records, therefore, was an important moment in refashioning the bureaucracy, the state, and the system of governance, and aligning them more with the new rulers of the realm.

In his analysis of Ibn al-Nadīm's account, George Saliba argues convincingly that the translation of the chancery records may very well represent the first instance of systematic written translations.[14] Saliba accepts Ibn al-Nadīm's account that al-Ḥajjāj ibn Yūsuf al-Thaqafī (d. 714), the feared Umayyad general and governor of Iraq, ordered the translation of records there from Persian to Arabic.[15] The attribution of such a significant step to al-Ḥajjāj is reasonable given the importance of al-Ḥajjāj's reign in stabilizing Umayyad (and Arab-Muslim) control over Iraq and Fars.[16] In fact, Ibn al-Nadīm presented al-Ḥajjāj's effort in sponsoring translations as a move against local bureaucratic elites, who spoke Persian and controlled the workings of the chancery. It is reasonable to assume that al-Ḥajjāj, in his efforts to consolidate his control over Iraq, also attempted to extend his control over the chancery through Arabization, which would permit him to hire more trustworthy bureaucrats. Ibn al-Nadīm had a less clear idea about the equivalent chancery translations in the Levant. He attributed the effort to either Hishām ibn ʿAbd al-Malik (r. 724–43) or his father, ʿAbd al-Malik ibn Marwān (r. 685–705).[17] Saliba has demonstrated that the translation of the chanceries led to significant changes in the structure of the state bureaucracy. Indeed, Ibn al-Nadīm explained that the translations coincided with the introduction of new families into the bureaucracy, which had previously been controlled by old bureaucratic dynasties that had survived from pre-Islamic rule. Saliba has proposed that the chancery records were likely translated at the same time as were practical works in mathematics, astronomy, astrology, and other court- and chancery-related sciences. Hoping to regain their old positions, the old bureaucratic dynasties looked to translate key scientific writings to gain an edge over their competitors, sparking the Translation Movement in the process.[18]

The competition model Saliba has offered provides insights into the role professional considerations and priorities played in the making of translations. Just as competition in the court may have influenced the translation of books of court-related sciences, such as mathematics and astronomy, other forms of competition and the changing landscape of practice may have played a similar part in relation to medicine.[19] For learned elite physicians, being able to communicate with the new Arabic-speaking political and economic elites would have been crucial for maintaining their status and expanding their clientele. At another level, Saliba credits this competitive pressure with pushing the new Arabized elites to discover (or recover) scientific Greek texts that had been all but forgotten in the Byzantine context. Yet scholars have demonstrated that Byzantine

[14] Saliba, *Islamic Science* (cit. n. 11).
[15] Ibn al-Nadīm, *Al-Fihrist* (cit. n. 12), 1:242.
[16] See Z. I. Oseni, "The Military Engagements of Al-Hajjaj Ibn Yusuf as an Umayyad Governor of Iraq and the East," *Journal of Arabic & Religious Studies: JARS* 11 (1994): 60.
[17] Ibn al-Nadīm, *Al-Fihrist* (cit. n. 12), 1:242.
[18] Saliba, *Islamic Science* (cit. n. 11).
[19] For a more extended discussion of this question, see Ahmed Ragab, "'In a Clear Arabic Tongue': Arabic and the Making of a Science-Language Regime," *Isis* 108 (2017): 612–20.

scholarly circles interacted with and commented on classical works through the seventh century and beyond.[20] In other words, the elites described by Saliba and Ibn al-Nadīm, be they the old, established ones or the newly emerging ones, were already familiar with these texts. In the case of medicine, scholars and practitioners continued a long and consistent tradition of Galenic scholarship that had been based in the Near East and Eastern Mediterranean for centuries.[21]

It is therefore reasonable to look at the gradual Arabization of these elites themselves, both under the pressure of competition and as part of the overall Arabization of the high echelons of society. My use of the word Arabization here, as opposed to *translation*, is intended to highlight an incremental, cultural, and largely oral process whereby scientific and medical practitioners had to slowly but consistently adopt the language of their new patrons. The move to Arabic and the attendant translations were therefore a function of gradually increasing facility[22] with Arabic, which slowly climbed to the top of the linguistic regime over two or more generations. Physicians, astronomers, astrologers, and others needed to speak Arabic and to translate, albeit orally, their practice into Arabic to engage their new clients. In the same way, bureaucrats and state functionaries had to gain knowledge of Arabic to communicate with their new Arab lords. Translation was a daily exercise necessary for the proper functioning of market and state and had the effect of pushing these learned practitioners and functionaries toward more Arabization—understood as more facility in dealing with Arabic and thinking in Arabic as well.[23]

With this in view, I argue that translation should not be analyzed as a question of moving single texts, or even collections of texts, within a particular discipline or as part of the canon of a specific author. Instead, translation needs to be considered at the level of the archive. In his analysis of archives and memory, Derrida posits that "the technical structure of the archive also determines the structure of the *archivable* content even in its relationship to the future. The archivization produces as much as it records the event."[24] Here, an archive of Galenic medicine was one that endowed a particular set of texts, and a specific type of epistemic content, with value over others—in this case, humoralist Galenic medicine over other medical paradigms. Moreover, in its constantly dynamic life, this emerging archive invited completion, so as to render the totality of the Hippocratic and Galenic corpus knowable through acquisition and translation. It also invited conformity and uniformity in writing and orality, from language and style to categorization.

[20] See, among others, Stratis Papaioannou, *Michael Psellos: Rhetoric and Authorship in Byzantium* (Cambridge, UK: Cambridge Univ. Press, 2013); Matteo Martelli, "Greco-Egyptian and Byzantine Alchemy," in *A Companion to Science, Technology, and Medicine in Ancient Greece and Rome*, ed. Georgia Irby (Hoboken, NJ: Wiley, 2016), 217–30; Maria V. Mavroudi, *A Byzantine Book on Dream Interpretation: The Oneirocriticon of Achmet and Its Arabic Sources* (Leiden: Brill, 2002); and Paul Magdalino and Mavroudi, *The Occult Sciences in Byzantium* (Geneva: La Pomme d'or, 2006).

[21] Peter E. Pormann, *The Oriental Tradition of Paul of Aegina's Pragmateia*, Studies in Ancient Medicine 29 (Leiden: Brill, 2004).

[22] Here, I am using "facility" as opposed to "literacy" or "fluency" to refer to a more variable set of relationships with the language that encompasses the ability to talk, read, or write but without placing them in a particular order or hierarchy.

[23] Ragab, "'In a Clear Arabic Tongue'" (cit. n. 19).

[24] Jacques Derrida, *Archive Fever: A Freudian Impression*, trans. Eric Prenowitz (Chicago: Univ. of Chicago Press, 1996), 17 (emphasis mine).

For practitioners of medicine, knowledge of Arabic and the ability to communicate with clients was as important as it was for the bureaucrats and scribes of the treasury described by Ibn al-Nadīm. Narrative was key to the practice of humoralists on at least two different levels.[25] At one level, the complicated logical structure of humoralist practice and its reliance on treatment by opposites meant that the rationale for a practitioner's diagnoses and treatments might not be immediately apparent to the client. Practitioners thus needed to be able to effectively narrate their reasoning to convince patients that the recommendations were appropriate and accurate.[26] This was especially the case when dealing with elite patients, who routinely called on multiple physicians at a time.[27] At another level, narrative was key to humoralist diagnostic structures. Practitioners needed to be able to understand their patients and their complaints, the progress of their symptoms, and the terms that they used to describe their ailments, as well as their descriptions of their healthy habits and their bodies in health. Physicians also needed to communicate with other practitioners of the medical arts, from herbalists and pharmacists to cuppers and surgeons. In other words, the fact that medical practice was deeply connected to a market consisting of clients, merchants, and other actors meant that practitioners needed to maintain a flexible linguistic outlook in order to be able to navigate a complex and increasingly Arabized marketplace.

To achieve such goals, translating specific texts or the entire oeuvre of certain authors, even ones as important as Hippocrates or Galen, was less urgent than the need to translate concepts, symptoms, diagnostic categories, and elements of pharmacopeia, which existed across multiple texts. For instance, Hippocratic and Galenic practice paid close attention to temporality: diseases developed on a predictable timeline where key moments (such as days 4, 7, 10, and 14, based on fractions of a moon's cycle of 28 days) indicated disease progress. On these "crisis days," symptoms intensified or were resolved, thus denoting an auspicious or catastrophic disease course. In this context, it was more pressing to translate and communicate the term and meaning of *crisis*, which was translated to the Syriac term *buḥrān*, than to fully translate the theoretical corpus that conditioned the meaning of *crisis* in the humoralist context.[28] As such, oral translation provided for spotty and practice-oriented translations of ideas, concepts, and categories in ways that would later influence the work of important translators of texts, such as Ḥunayn ibn Isḥāq. In his analysis of Ḥunayn's translations of Galen's work on crises,

[25] On narrative and humoral medicine, see, among others, Lee T. Pearcy, "Diagnosis as Narrative in Ancient Literature," *Amer. J. Philol.* 113 (1992): 596–616; Gianna Pomata, "The Medical Case Narrative: Distant Reading of an Epistemic Genre," *Literature and Medicine* 32 (2014): 1–23; Or Hasson, "Between Clinical Writing and Storytelling: Alfonso De Santa Cruz and the Peculiar Case of the Man Who Thought He Was Made of Glass," *Hispanic Review* 85 (2017): 155–72; and Caroline Petit, *Galien de Pergame ou la rhétorique de la Providence: Médecine, littérature et pouvoir à Rome* (Leiden: Brill, 2018).

[26] Much has been written on logic and its connection to the practice of humoral and Galenic medicine, though not as much in relation to Islamic or Arabic Galenism. See, for example, Ian Maclean, *Logic, Signs and Nature in the Renaissance: The Case of Learned Medicine* (New York: Cambridge Univ. Press, 2007); and Nancy G. Siraisi, *Medieval and Early Renaissance Medicine: An Introduction to Knowledge and Practice* (Chicago: Univ. of Chicago Press, 2009).

[27] See al-Rāzī's instructions to his student in the famed *Epistle to a Student: Abū Bakr Muḥammad ibn Zakarīyā al-Rāzī, Akhlāq Al-Ṭabīb: Risālah Li-Abī Bakr Muḥammad ibn Zakarīyā Al-Rāzī ilā Baʿḍ Talāmīdhih* (Cairo, 1977).

[28] See Glen Cooper, ed., *Galen, "De Diebus Decretoriis," from Greek into Arabic: A Critical Edition, with Translation and Commentary, of Ḥunayn ibn Isḥāq, "Kitāb ayyām al-buḥrān"* (Farnham, Surrey, UK: Ashgate, 2011).

Glen M. Cooper describes Ḥunayn's method of translation as reader-oriented because Ḥunayn's style paid little, if any, attention to preserving the integrity of the original text and instead focused primarily on conveying concepts and thoughts to his readers—medical practitioners.[29] Cooper correctly notes that many concepts are translated using various words, from Arabic, Syriac, Persian, or even transliterated Greek, without a clear or consistent logic behind these choices, which Ḥunayn and other translators hardly explained.[30] In other words, it appears that Ḥunayn and other translators relied on a wealth of translated concepts and terms that existed in practice well before the translated texts came to catch up to them.

Cooper discusses a passage on translation by Khalīl ibn Aybak al-Ṣafadī (1296–1363) that was commonly cited by medieval scholars. Al-Ṣafadī, who was a well-known scholar and historian from Safad (modern day Israel/Palestine), explained that translations developed from focusing on translating word for word to translating thoughts. Cooper shows that this evolution described by al-Ṣafadī is difficult to trace historically in the lives and careers of early translators.[31] Yet al-Ṣafadī's characterization describes an evolution not only in the history of written translations but one in translation tout court. Word-for-word translations were necessary to allow physicians and other practitioners to make sense of the symptoms described by their patients and to explain their approach to them. While this word-for-word translation may have influenced the early works of written translations, it was less needed in later works by Ḥunayn and others—translations that ended up dominating Arabic humoralism. Yet these later translations depended on the infrastructure produced orally.

In Ibn al-Nadīm's account, disgruntled Persian bureaucrats fearful of being replaced by Arabic speakers tried to prove that the translations were not accurate, or that the chosen terms fell short of conveying the complex technical meanings of the original Persian. The key test that they proposed was to ask about specific words and terms, and see how effectively they were translated.[32] In translating these concepts and terms (or, at times, transliterating or adapting them into Arabic), the chancery records became legible to the Arabic-speaking patrons, and the translation of the various mathematical and astronomical texts would naturally follow as the bureaucratic elites became more and more Arabized and started to seek materials that facilitated and consolidated their bilingual practice. In this case, and in medicine, the point of translation was not to move materials or concepts to Arabic but to make them legible and comprehensible to the new clientele. Whether this was achieved through adopting Arabic words, creating new ones, or Arabizing Persian or Greek words was of less significance.

Thinking of translation in terms of archive making admits the rationale expressed by Ibn al-Nadīm's own narrative. Putting aside the exact chronology of translation, Ibn al-Nadīm placed the accounts of translations in a subchapter titled "Mentioning the reason why the books of philosophy are numerous in these lands."[33] In his narrative, the movement of texts into Islamic domains included both their translation into Arabic

[29] Glen M. Cooper, "Ḥunayn ibn Isḥāq's Galen Translations and Greco-Arabic Philology: Some Observations from the *Crises* (*De crisibus*) and the *Critical Days* (*De diebus decretoriis*)," *Oriens* 44 (2016): 1–43; see 5–6.
[30] Ibid., 11–2.
[31] Ibid., 7.
[32] Ibn al-Nadīm, *Al-Fihrist* (cit. n. 12).
[33] Ibid., 1:243.

and their physical movement and acquisition. He described how the Abbasid caliph al-Maʾmūn (r. 813–33) saw Aristotle in a dream and was thereafter inspired to acquire as many classical Greek texts as possible. Ibn al-Nadīm then explained the efforts of many other patrons of translation, such as the three brothers Muḥammad, Aḥmad, and al-Ḥasan Banū Shākir al-Munajjim—astronomers, mathematicians, courtiers, and patrons of sciences:[34]

> Muḥammad, Aḥmad and al-Ḥasan banū Shākir al-Munajjim were some of those who were interested in obtaining books from the land of the Romans [the Byzantine empire]. They spent what is dear and precious [to buy and acquire these texts]. They sent Ḥunayn ibn Isḥāq and others to the Romans to bring them remarkable books in philosophy, engineering, music, arithmetic, and medicine. Qusṭā ibn Lūqā also brought books with him and translated them or had them translated.[35]

Ḥunayn ibn Isḥāq and Qusṭā ibn Lūqā were two of the more prominent and celebrated translators of scientific and medical texts. In Ibn al-Nadīm's account, they were also tasked with acquiring texts, not simply translating them.

Ibn al-Nadīm's focus on and interest in writing and written texts are naturally connected to his career as a bookmaker and seller. For Ibn al-Nadīm, acquiring books, forming libraries, and collecting materials were necessary for knowledge making, and also a sure sign of the greatness of different rulers and the magnificence of their reigns. At the same time, Ibn al-Nadīm's recounting of the history of knowledge in the lands of Iraq, Persia, and the Near East was deeply connected to the movement of books: that is, the ability of different sovereigns and patrons to collect, acquire, and protect them. This history is inflected by his and his contemporaries' view on the rise of learning in Iraq under the Abbasids. In other words, the Abbasid efforts to collect books and to patronize authors, translators, and practitioners were seen as part of a pattern of great rulers sponsoring and patronizing knowledge making, and another stage in the waxing and waning history of knowledge in the Near East.

In this narrative, Alexander the Great loomed large as a key figure in pre-Islamic history and in the history of knowledge. In Ibn al-Nadīm's view, Alexander's invasion led to a significant decline in learning in Iraq and Iran because he seized troves of books and materials there and sent them back to his Greek domains, where learning and knowledge grew as a result.[36] Similarly, the rise of learning in Alexandria, a school regarded with reverence among Islamicate Hellenists, was connected to a similar process of book acquisition. Ibn al-Nadīm recounted that King Ptolemy II Philadelphus of Egypt (r. 283–46 BCE) ordered some of his associates to collect as many books as possible. They "collected fifty-four thousand and a hundred and twenty books and said that even more existed in Iran, India and China."[37]

Throughout, oral translation was implied in the process of collecting and classifying. For instance, in each of the several incidents that Ibn al-Nadīm narrated where troves of books were found, he mentioned whether there were people able to read the languages in which these books were written and explain their contents.[38] In some

[34] On Banū Mūsā ibn Shākir al-Munajjim, see Donald P. Hill, *The Book of Ingenious Devices/Kitāb Al-Ḥiyal: Kitāb Al-Hiyal by the Banū (Sons of) Mūsā ibn Shākir* (Springer, 2012).
[35] Ibn al-Nadīm, *Al-Fihrist* (cit. n. 12), 1:243.
[36] Ibid., 1:239.
[37] Ibid., 1:239–40.
[38] Ibid., 1:240

cases, the discovered books could not be fully understood because they were written in old or unknown languages but were kept until someone who could read them could be found.[39] Written translation, which has consistently dominated modern scholarly discussions, was but a stage in the larger process described by Ibn al-Nadīm. Thinking this way, in terms of archive making, recognizes written translation as a gradual process, secondary to the acquisition and circulation of texts, and part of the development of the book market and the scientific elite's increasing facility with Arabic.

HUNAYN'S ARCHIVE

Few names are more connected to the history of Greco-Arabic translations, and particularly medical translations, than that of Ḥunayn ibn Isḥāq al-Ibādī (d. 873). An Arab Nestorian Christian from al-Ḥīra in southern Iraq, Ḥunayn was a native Arabic speaker, fluent in Syriac (the liturgical language of the Eastern Church) as well as Greek. After migrating to Baghdad, he studied under the famous physician Yuḥannā ibn Masāwayh (d. 857), a Syriac physician hailing from the city of Gundishapur in southwest Iran. Ibn Masāwayh seems to have grown tired of Ḥunayn, whose ethnic and tribal origin was seen as inferior, and ultimately chased him out of Baghdad. After some absence, during which Ḥunayn presumably traveled in the Levant and in Asia Minor honing his Greek skills, he returned to Baghdad and rose to the highest echelons of the medical community there. His reputation as one of the more important translators continued to grow, and his medical translations came to dominate the medical field for centuries to come. Moreover, Ḥunayn worked with and trained a number of students (including his son), who established a stellar reputation as translators in their own right.[40] In a treatise that he wrote to enumerate Galen's available books and to specify which of them were translated, Ḥunayn perhaps came closest to explaining his methods and to reflecting on the translation process from within.[41] Originally commissioned to be a catalog of all Greek medical writings, the treatise offers an important view of how Ḥunayn understood the medical archive, which he had been instrumental in producing. In this section, I will look closely at two stages in the life of his treatise, its original composition in Syriac and then its translation to Arabic, to understand the production of the medical archive from the standpoint of Ḥunayn, his patrons, and readers.

Ḥunayn's treatise was not limited to listing his own translations or those of his students and associates but also included all of Galen's works that were known and available at the time, including ones translated by others and ones that were not yet translated. Ibn al-Nadīm cited and relied on the treatise in his *Fihrist*, and the famous physician Abū Bakr al-Rāzī commented on and completed the treatise, adding works that Ḥunayn did not include. Following Gotthelf Bergsträsser's edition of the treatise in 1925, scholars looked to the text as an explanation of Ḥunayn's method in translation

[39] Ibid., 1:238–40.

[40] Much has been written about Ḥunayn ibn Isḥāq's translations. For some of the more recent works, see Cooper, "Ḥunayn Ibn Isḥāq's Galen Translations" (cit. n. 29); and Oliver Overwien, "The Paradigmatic Translator and His Method: Ḥunayn Ibn Isḥāq's Translation of the Hippocratic Aphorisms from Greek via Syriac into Arabic," *Intellectual History of the Islamicate World* 3 (2015): 158–87.

[41] Ḥunayn ibn Isḥāq al-ʿIbādī, Gotthelf Bergsträsser, and Ayasofya Kütüphanesi, *Hunain ibn Ishaq über die syrischen und arabischen Galen-Übersetzungen: Zum ersten Mal herausgegeben und übersetzt von G. Bergsträsser* (Leipzig: Brockhaus, 1925).

and a map of medical translators during this period.[42] Yet at another, less-investigated level, the treatise provides us with important information about Ḥunayn's work in constructing an archive of medical knowledge and gives us a glimpse into the intellectual and patronage project of which this treatise was part. It is important to note that the treatise we have today is but a poor substitute for a much loftier project that Ḥunayn failed to accomplish. Standing as evidence of failure, the treatise allows us to better understand the making of scientific knowledge and the potential, logic, and intent that the failed project embodied.

In his introduction, Ḥunayn explained the purpose of the treatise and the difficulties that surrounded its composition. Ḥunayn wrote this Arabic treatise at the request of some of his main patrons, the previously mentioned Shākir ibn al-Munajjim brothers. The Shākir brothers (Banū Shākir)[43] were themselves prolific scholars and powerful courtiers who grew up in the Abbasid court after their father entrusted them to the care of his patron and friend the Abbasid caliph al-Maʾmūn. Banū Shākir rose to the forefront of the Islamic Hellenistic culture that flourished in Baghdad in the middle of the ninth century. They were also known as eloquent authors and talented illustrators and were major patrons of arts and sciences in Abbasid Baghdad, collecting books, attracting and recruiting scholars, and contributing to scholarship themselves.

The treatise commissioned by the Shākirs was not meant to be restricted to Galen's works. Instead, it was supposed to include "what was proven to be useful of the ancients' books on medicine."[44] Ḥunayn was to list the main purpose for each book and explain why a student or a reader might need it. The entry was also supposed to include information about the chapters or treatises included in the book and the different questions discussed in each, "so that it becomes easier for one studying a particular question to locate it, and to know in which book [to find it], in which treatise in that book and in which part of the said treatise."[45] The goal was therefore to create a finding aid of sorts that would enable scholars and students to locate answers to their questions more easily. As such, the treatise would transform the ancients' disparate collection of medical texts into a veritable archive that was internally coherent and thus could be studied not only by author or text but also by topic.

The extent of the treatise's consolidating mission is better grasped when viewed in light of some of Ḥunayn's remarks about his own translations. In the treatise and elsewhere, Ḥunayn explained that he often filled in the blanks in his source texts and included, in his translated texts, comments and explanations based on his other readings, and his own medical knowledge and practice.[46] Conversely, Ḥunayn also omitted repetitions and sometimes discarded entire treatises or works when he found them unsatisfactory or offering little value because the content was better presented elsewhere.[47] While some incidences of Ḥunayn's editorial interventions were visible

[42] For a listing of these works and an analysis of their contributions, see Oliver Overwien, "The Art of the Translator, or: How Did Ḥunayn ibn ʾIsḥāq and His School Translate?," in *Epidemics in Context: Greek Commentaries on Hippocrates in the Arabic Tradition*, ed. Peter E. Pormann (Boston: De Gruyter, 2012), 151–70. For a discussion of some of the more important works on this topic, see Uwe Vagelpohl, "In the Translator's Workshop," *Arab. Sci. Phil.* 21 (2011): 249–88.

[43] *Banū* is plural of *Ibn*. *Banū Shākir* translates as "the sons of Shākir"; see Hill, *Book of Ingenious Devices* (cit. n. 34).

[44] al-ʿIbādī, Bergsträsser, and Kütüphanesi, *Hunain Ibn Ishaq* (cit. n. 41), 1.

[45] Ibid.

[46] Ibid., 1. See also Overwien, "Art of the Translator" (cit. n. 42), 157–9.

[47] Overwien, "Art of the Translator" (cit. n. 42), 158.

and easily detectable, Oliver Overwein, Uwe Vagelpohl, and others have convincingly argued that Ḥunayn's practices likely extended well beyond these clearly marked or observable instances.[48] Moreover, there is no reason to assume that this practice was restricted to Ḥunayn. It is likely that other translators, about whose methods we know less, took similar approaches and edited the works that they translated. In its totality, translation was thus also a practice of editing and explaining. The goal was not simply to move texts as faithfully as possible from one language to another but rather to contribute to editing, distilling, and consolidating, to create a body of knowledge in which repetitions (especially inferior ones) were omitted, contradictions resolved, and texts properly cross-referenced. In this context, a treatise like Ḥunayn's would serve as a guide to the consolidated body of knowledge produced by different translators. Moreover, the critical evaluation of the works of different translators/editors/movers was also important because it demonstrated the progress of this process.

Ḥunayn offered his apologies to the Shākirs because he was not able to compose the desired treatise, despite his belief in its importance. He had lost his library, and he could not recall all these works from memory.[49] Instead of the desired all-encompassing finding aid, Ḥunayn offered a more modest one that focused only on Galen, and that relied on an earlier treatise he had prepared in Syriac for another patron shortly after losing his library. In the introduction to the old treatise, which Ḥunayn translated or summarized, he further explained why this project was important. Although he would later commit to the Shākir project, he had been rather skeptical when his former patron had first approached him. He told his Syriac patron that Galen had already written a treatise in which he enumerated his works, and which had been translated under the title *Fihrist.* Galen also wrote another shorter treatise that included instructions on how and in what order one should read his works. As such, Ḥunayn reasoned, "Learning about Galen's book from Galen is certainly superior to learning about them from me."[50] The patron responded, as quoted by Ḥunayn:

> "While what you [argue is reasonable], the people interested in this art [medicine] and who read books in Syriac or Arabic are in need of knowing which books have been translated to Arabic or Syriac and which have not [. . .], and which Greek texts were located and which were not, so that effort can be extended to translate those that were found, and to seek those that were not."[51]

Ḥunayn was won over by this argument. His enthusiasm for the Shākir project was evidently rooted in this previous conversation.

In this explanation, two important tasks were at stake: (1) collecting Greek materials; and (2) translating them to Syriac or Arabic. While the scope of the Syriac treatise was smaller, both patrons wanted to take stock of the expanding archive of medical texts with the explicit intent of further expanding the archive and facilitating access to it. In this context, Galen's own catalog was useful but hardly sufficient. It was a finding aid for a different archive. The new Islamicate archive, produced

[48] Ibid.; Vagelpohl, "In the Translator's Workshop" (cit. n. 42).
[49] al-ʿIbādī, Bergsträsser, and Kütüphanesi, *Hunain Ibn Ishaq* (cit. n. 41), 1.
[50] Ibid., 2.
[51] Ibid., 2–3.

in Syriac, Arabic, or both, required a different organization, one that explained its contents and adjudicated its worth.

The archive, in this sense, is not a concrete collection of materials housed or preserved in a space. While Derrida's archive was a site (a place) of commencement and commandment, this archive of classical medical texts was rather a moment (a temporality) of such commencement and commandment. Here, "archive" describes not simply a collection of documents that record events but rather a collection of materials that invite a commencement: an action into the future. The archive of scientific classical texts enabled this moment of (re)commencement of commentaries, critique, and practice. This impulse to (re)commence was evident in the need for the two treatises that Ḥunayn described. The Syriac project looked to (re)commence the evaluation of the archive's materials and the completion of the translations, a process necessary for the full inclusion of ancient materials. The Arabic treatise looked to (re)commence the function of the archive by facilitating the use, study, and analysis of different ancient medical texts perceived in their totality as a coherent whole. This moment of, or invitation to, commencement is unmistakably linked to an actual commandment: Ḥunayn was commanded to perform this task of collection, evaluation, and arrangement.

In the same vein, the archive provides for a measure of uniformity and "commands" a degree of coherence that is constantly sought but almost never achieved. Following Foucault's argument that the archive is "the system which governs the appearance of statements as unique events,"[52] I argue that the archive, as a dynamic collective, produces gravitational power that pulls for completion as well as uniformity. Along with their interests in acquiring missing texts and adding to the body of translated materials, both patrons were also interested in an evaluative project—one that aimed to purify and rectify the expanding archive. The Syriac patron asked Ḥunayn to help evaluate different translations by making their attributions explicit and comparing them with one another. The Shākir patrons pushed for full consolidation of the ancient corpus, which could only be achieved by pushing forward Ḥunayn's and his colleagues' efforts in editing Greek materials, explaining them, and cutting redundancies. In both cases, the composition of the treatises was symptomatic of the organizational, gravitational power at the heart of the archive.

Moreover, the project intended to rearrange the corpus of Greek texts in a manner that would go beyond authors and their works to address diseases, conditions, and other related practical concerns. In that sense, the project would fundamentally intervene in the coherence of the archive and its constituent texts. Ḥunayn was to break down texts, disrupt their coherence, and establish a new level of organization whereby discrete textual boundaries melted, giving rise to a larger whole. This logic relied on the assumed commensurability of the constitutive texts and materials. It could work only if these authors and their texts addressed a similar conception of illness, healing, the human body, and medical practice, among other considerations. The project, therefore, indexes the view of medicine, and in particular Galenic medicine, as a coherent whole, where breaks may exist but can be remedied, and where texts and authors agreed on the fundamental foundations of the medical art. More fundamentally, the project offers evidence that

[52] Michel Foucault, *The Archaeology of Knowledge*, trans. Alan Sheridan (New York: Pantheon Books, 1972), 129.

Ḥunayn and his patrons and readers believed that such foundations exist. In other words, if the discrete nature and internal logic of each text was to be disarticulated, it was for the sake of a higher order of coherence—that of the medical art. Not only was this coherence assumed, it was desired.

At another level, entertaining such a project demonstrated a specific view shared by Ḥunayn and his patrons on the sheer size of available knowledge. Ḥunayn was aware of the first Hippocratic aphorism, which he had translated, that stated "Life is short and the art is long."[53] If the art is indeed long, too long for a lifetime, how could such a project be feasible or even reasonable to entertain? The length of the art was connected to the variations of human bodies and to the need for long experience. However, as this endeavor demonstrates, it was not related to the size of the Greek corpus or the fundamental knowledge that physicians needed to know. As such, the project operated with the view of two types of knowledge: one that is limited and fully digestible in a single finding aid, and another that is more variable, changing, and too long for a single or many human lives. The first is precisely the archive that translations intended to move, edit, and consolidate—an inherited textual corpus that outlined the fundamentals of the art and upon which practical and experiential knowledge could be built. Not only is this corpus by definition limited, it is limited enough for one person, possibly with students and aides, to undertake cataloging and indexing.

Finally, the failed project operated with a skeptical view of the corpus and the authority of its authors. On one hand, and as mentioned before, the coherence of specific texts, and therefore the authorial/authoritative voice of their authors, was less important. On the other, the project intended to overcome the perceived unwieldy nature of the corpus. Ḥunayn was to organize it, trim its excesses, and offer a clear and concise way to approach it. In this attempt to create the catalog to end all catalogs, the corpus is seen as suffering from redundancies, problems, breaks, and useless information. The new archive is to be trim, useful, and more easily navigable. This brings us back to the more modest project that Ḥunayn achieved. There, too, and as mentioned before, Galen's own catalog was not sufficient, as it indexed a different archive. In this view, the translations that Ḥunayn and others engaged in were indeed a process of making a new medical archive that was built on the practice that physicians engaged in, and was meant to facilitate such practice. As such, I argue that understanding these efforts needs to start not from the Greek text or its Arabic counterpart but from the practical categories that these texts underlined and indexed.

In offering his apologies for not completing the project, Ḥunayn expressed his hopes that he might retrieve his confiscated library with the aid of his influential patron. The physical library occupied a key position in the production of this catalog. The catalog project was simply unfeasible in its totality without the presence of the physical library that Ḥunayn had assembled in his various travels. Ḥunayn's library, we come to find out, contained a collection of Greek manuscripts by many authors and from different sources. It also included several copies of many texts, since he came to

[53] On the first aphorism, see Franz Rosenthal, "'Life Is Short, the Art Is Long': Arabic Commentaries on the First Hippocratic Aphorism," *Bull. Hist. Med.* 40 (1966): 226–45. On the aphorisms and the commentary traditions in Arabic, see, among others, Pormann and Karimullah, "Arabic Commentaries on the Hippocratic Aphorisms" (cit. n. 8); and Rosalind M. Batten, "The Arabic Commentaries on the Hippocratic Aphorisms: Arabic Learned Medical Discourse on Women's Bodies (9th–15th Cent.)" (PhD diss., Univ. of Manchester, Manchester, UK, 2018).

use these copies for verifying and correcting the Greek text before translating it.[54] The centrality of the physical library demonstrated Ḥunayn's view of his role not simply as a translator for hire but as a collector and mover of knowledge who spent much of his energy traveling and seeking manuscripts on behalf of his patrons and for his own benefit. The physical library has a predictable dialectical relationship to memory: the absence of one highlights the importance of the other. This highlights how the project itself was one intended not to replace memorization but precisely to complement practices of memorization with those of referencing and looking up.

The content of Ḥunayn's treatise offers a more nuanced picture of the translation archive. For Ḥunayn, and perhaps others too, translation often came after, and was intertwined with, acquiring, comparing, and correcting Greek texts. Additional copies and better manuscripts were sought and, as Overwien has suggested, earlier translations may have been consulted as well.[55] Translation was key for the full habilitation of a text within the emerging archive, but no single translation was perceived as a definite last step. For one, translations occurred not just from Greek into Arabic but also into Syriac, from Syriac into Arabic, and, in some rare instances, from Arabic into Syriac.[56] This constant movement of materials not only flowed outward from the Greek but also flowed back to the Greek as translated texts helped translators correct, verify, and complete Greek texts. In other words, the archive was a dynamic environment where texts and knowledge passed in multiple directions, with the aim of consolidating knowledge, filling in gaps, and resolving contradictions.

The iterative nature of translation was key to such a dynamic archive and contributed to its constant internal mobility. Ḥunayn explained how translators edited each other's work, whether motivated by cooperation or competition; how they relied on one another's works; and how they collaborated in translating some texts by creating a multistep translation (from Greek to Syriac and then to Arabic, for example) to complement their varying linguistic skills. This iterative nature was fostered by the multiplicity of patrons, some of whom may have had favorite translators or favorite topics and disciplines. Moreover, medical practitioners such as Ḥunayn and some of his patrons, as well as the readers and consumers of these texts, contributed to the spread of particular texts and therefore to the reputation of certain translators. In addition to the expanding written translations, the oral translations embedded in the practice allowed for the gradual, and often uneven, production of specific terms in Arabic that were used to translate Greek technical terms. In the case of medical translation, translators created these terms and made their choices with an eye toward the habits, traditions, and preferences of medical practitioners, and these terms came to spread across the written archive through the combined influence of practice and this iterative process of translation. This contributed to the uniformity of the archive and to its consistency.

As explained before, the archive was connected to the narrative nature of the humoralist practice. In her article "The Sciences of the Archive," Lorraine Daston identifies how particular scientific disciplines in the early modern period developed as an enterprise dependent on archival and archived knowledge.[57] In astronomy, for instance, historical observations were necessary to make sense of contemporary observations and

[54] al-ʿIbādī, Bergsträsser, and Kütüphanesi, *Hunain Ibn Ishaq* (cit. n. 41).
[55] Overwien, "Art of the Translator" (cit. n. 42), 152.
[56] al-ʿIbādī, Bergsträsser, and Kütüphanesi, *Hunain Ibn Ishaq* (cit. n. 41).
[57] Lorraine Daston, "The Sciences of the Archive," *Osiris* 27 (2012): 156–87.

to create astronomical knowledge. In these disciplines, Daston argues, the library and the archive were physically centered within the spaces of the laboratory or observatory or other similar scientific institutions. Daston's observations allow for deeper considerations of the role played by archives, physical and metaphorical, in the construction of specific scientific practices. If this is the case, what role did archives play in the construction of the version of Galenic medicine under consideration here? And was this Galenic medicine also "a science of the archive"?

Indeed, this version of Galenic medicine was deeply invested with a particular form of historical consciousness, and the importance of historical knowledge. Ḥunayn's failed project relied on an understanding of medical knowledge as commensurable, which rendered the inherited Greek knowledge important and useful. Treating a largely unchanged human body, physicians and medical practitioners engaged actively with historical observations. Perhaps a key example comes from another text, one that was translated by Ḥunayn and remained exceedingly popular, namely, the *Epidemics*. Built on a collection of cases attributed to Hippocrates, the text continued to serve as a clear example for proper practice and to inspire a significant body of commentaries for centuries to come.[58] The staying power of *Epidemics* is perhaps one of the clearest examples of belief by Galenics in the validity of such "historical" knowledge even at the practical level.

Yet this archive is significantly different from contemporary astronomical archives, for instance, which offer a picture close to what Daston describes. As explained, the medical archive was not all written; it was also an oral archive constructed around the experiences of patients, physicians, and other medical practitioners. As such, it was not an archive that could be stored in a single place or kept in a library. Ḥunayn's lost library represented the written part of an archive that was to be organized, arranged, and indexed to follow the logic of the largely oral practice. Moreover, medical practice in the Near East was consistently multilingual, as physicians dealt with patients, traders, practitioners, and others who spoke in various languages and vernaculars. This multiplicity provided for even more complexity of the archive and resulted in the mix of different languages that appear in medical writings. Yet, as Ḥunayn's project demonstrated, the archive pulled for uniformity and coherence. This pull is motivated by its users, who seem to have consistently valued more accessible and easily digestible content.

SINGULAR AND MULTIPLE ARCHIVES

Making an archive also reflects a mode of identity formation. Producing a medical archive based on Greek humoralist materials engendered and emphasized the identities of specific groups of practitioners and favored their brand of medicine. Admittedly, this was a project championed by Galenic practitioners, some of whom hailed from former Byzantine territories in Egypt and the Levant, and others from the Hellenized Syriac communities in former Sassanid territories. But while both groups of physicians traced their intellectual genealogy to the same set of ancient texts and to generally similar groups of successive commentators, they were not the same. Moreover, in the beginning

[58] Peter E. Pormann, ed., *Epidemics in Context: Greek Commentaries on Hippocrates in the Arabic Tradition* (Boston: Walter de Gruyter, 2012), especially Uwe Vagelpohl, "Galen, *Epidemics*, Book One: Text, Transmission, Translation," 125–50.

of the ninth century, the medical scene was even more complex than a simple struggle between two factions of competing Galenics.

Ibn al-Nadīm's accounts from the middle of the tenth century included three different groups of practitioners: Greek humoral practitioners, who were likely the more numerous and influential in his time; Indian practitioners; and Persian practitioners. Among the Persians, Ibn al-Nadīm mentioned only two physicians. The first was Tiādurūs, who presumably served the Sassanid emperor, Sabūr II (r. 309–79), and for whom the famous emperor built a monastery. Tyādurūs also wrote a textbook on medicine (*kunnāsh*), which was translated into Arabic and seems to have circulated in the ninth and tenth centuries. The second was called Tyādūq and was reported to have served al-Ḥajjāj ibn Yūsuf.[59] Ibn al-Nadīm's account of Indian physicians was more elaborate, although still significantly shorter than his report on the humoralists. Instead of focusing on names of physicians, Ibn al-Nadīm opted to enumerate "the names of Indian books on medicine that are found in the language of the Arabs." He listed twelve books, which included one *kunnāsh*; a book that included a summary of one hundred diseases and treatment; a drug formulary; a book on women's diseases; a number of specific books on snake poisons and on medicinal preparations useful for pregnant women; and a book on "imagination [causing] ailments."[60] Three of these twelve books were connected to the Bīmāristān (hospital) built by the Barmakids, the vizir dynasty of the ninth century.

Similar to, but more prominent than, the Banū Shākir, the Barmakids were major patrons of scientific and literary activity. The Barmakids claimed to have descended from a prominent dynasty of Zoroastrian or Buddhist priests. Under the Umayyads, some members of the family served in the bureaucracy, but they rose to prominence under the Abbasids after becoming supporters of the Abbasid revolt in 750. Eventually, they came to be the vizier dynasty of the early Abbasid empire, with their members becoming the close friends, mentors, and confidants of the princes of the Abbasid dynasty. They reached the apogee of their influence under Hārūn al-Rashīd (r. 786–809). It was also al-Rashīd who put an abrupt end to their influence in the events known as the Fall of the Barmakids (*nakbat al-barāmikah*) in 803. Although al-Rāshīd confiscated much of their property and arrested the more significant members of the dynasty, their influence endured through their clients and protégés, such as al-Faḍl ibn Ḥasan, who was the strong vizir of al-Maʾmūn (r. 810–33).[61]

According to Ibn al-Nadīm, the Barmakids were particularly interested in patronizing Persianate and Indian scholars and translators who could translate from Pahlavi (middle Persian) and Sanskrit (often through Pahlavi) to Arabic.[62] Participating in the emerging tradition of hospital building in the Abbasid metropole, the Barmakids built

[59] Ibn al-Nadīm, *Al-Fihrist* (cit. n. 12), 1:303.
[60] Ibid.
[61] See Kevin van Bladel, "The Bactrian Background of the Barmakids," in *Islam and Tibet—Interactions along the Musk Routes*, ed. Anna Akasoy, Charles Burnett, and Ronit Yoeli-Tlalim (Burlington, VT: Ashgate, 2016), 43–88; C. Edmund Bosworth, "Abū Ḥafṣ ʿumar Al-Kirmānī and the Rise of the Barmakids," *Bull. Sch. Orient. Afr. Stud.* 57 (1994): 268–82; Tayeb El-Hibri, *Reinterpreting Islamic Historiography: Harun al-Rashid and the Narrative of the Abbasid Caliphate* (Cambridge, UK: Cambridge Univ. Press, 1999); and Mohammed Didaoui, "Translation and Textual Incongruity: The Background for Al-Jahiz's Rhetorical Work," in *Proceedings of the International Conference on Similarity and Translation: Bible House, New York City, May 31–June 1, 2001*, 2nd ed., ed. Stefano Arduini and Robert Hodgson Jr. (Rome: Edizioni di storia e letteratura, 2007), 427–48.
[62] Ibn al-Nadīm, *Al-Fihrist* (cit. n. 12).

a hospital where medical authors and translators worked and produced several texts of Indian medicine. In the same vein, Ibn al-Nadīm mentioned that a physician called Mankah translated an Indian *kunnāsh* for Yaḥya ibn Khālid al-Barmakī (d. 806), who was a governor under the Abbasid caliph al-Manṣur (r. 754–75) and a vizir under al-Rashīd.[63] Members of the Abbasid ruling dynasty seem to have patronized some translations as well. These include ʿAbd Allāh ibn ʿAlī (d. 764), who was the uncle of Abū ʿAbbās al-Saffāḥ, the first Abbasid caliph. ʿAbd Allāh ibn ʿAlī was a central figure in the Abbasid push to defeat the Umayyads. He was also known to have been a patron of authors and scholars.[64] Another translation was patronized by Isḥāq ibn Sulaymān ibn ʿAbd Allāh, who was a cousin of the first caliph, Abū al-ʿAbbās al-Saffāḥ, and of ʿAbd Allāh ibn ʿAlī.[65] Common among these patrons of Persian scholars and translations is their connection (through lineage or through their career) to the Persianate component of the empire and to the early Abbasid revolt, which was supported by Persianate subjects.

For a number of Indian texts, it appears that the translations occurred through Persian. This pattern fits well with a Sanskrit-Pahlavi (middle Persian) literary connection that had existed since the Arab conquest of Iraq and Fars. For instance, Ibn al-Muqaffaʿ (724–59), a famous bureaucrat and author, made a career for himself as a secretary under the Umayyads and the Abbasids. Ibn al-Muqaffaʿ, himself a descendant of noble Persian families, was likely among many others who joined the Arab court to support state administration in former Sassanid territories in Iraq and Iran. His claim to fame is partly based on his translation of the animal fables *Kalilah wa Dimnah*, originally a Sanskrit collection which was translated to Pahlavi (Middle Persian) and that he translated into Arabic.

The famous fables were not the only book or collection that Ibn al-Muqaffaʿ may have translated. *The Khudaynāmah* (Book of kings), *The Āʿīn-nāmah* (The book of manners), *Kitāb al-Tāj* (The book of the crown), *Kitāb Mazdak* (The book of Mazdak) and *The Letter of Tansar*, all of Sanskrit/Indian origin, were also attributed to him.[66] Ibn al-Muqaffaʿ's work at such an early period of Abbasid rule was probably a prelude to more translations and to further integration of Persian and Indian writings into the new Islamicate archives. Such efforts may have been supported by the Barmakids, themselves Persians of Indian stock.[67]

In the field of medicine, Indian and Persian physicians competed for recognition and for clients with the humoralists during this period—such competition would have included attempts to translate and popularize medical theories and medical recommendations, in order to influence the habits of the potential clients who belonged to the

[63] Shefer-Mossensohn and Hershkovitz, "Early Muslim Medicine" (cit. n. 9).

[64] Ibn al-Nadīm, *Al-Fihrist* (cit. n. 12), 1:303. Ibn al-Nadīm mentioned that ʿAlī ibn ʿAbd Allāh translated a book on Indian medicine from Persian to Arabic. Although ʿAlī ibn ʿAbd Allāh probably knew Persian, as he led Persian armies during the Abbasid revolt, it is more likely that he sponsored the translation rather than performed it himself. See Muḥammad ibn Aḥmad ibn ʿUthmān al-Dhahabī, *Siyar Aʿlām Al-Nubalāʾ* (Beirut: Muʾassasat al-Risālah, 2001).

[65] Ibn al-Nadīm, *Al-Fihrist* (cit. n. 12).

[66] J. D. Latham, "Ibn Al-Muqaffaʿ and Early ʿAbbasid Prose," in *ʿAbbasid Belles-Lettres*, ed. Julia Ashtiany, Latham, R. B. Serjeant, and G. Rex Smith (Cambridge, UK: Cambridge Univ. Press, 1990), 48–77.

[67] Dominique Sourdel, *Le vizirat 'abbāside de 749 à 936 (132 à 324 de l'Hégire*) (Damas: Institut français de Damas, 1959).

Abbasid elites.[68] However, most of these Indian and Persian physicians disappeared from surviving sources in the early decades of the ninth century. Perhaps the fall of the Barmakids as key patrons, the rising tensions between Arabs and Persians—as part of the *Shuʿubiyyah* (nationalism) controversies, which culminated in the civil war between al-Maʾmūn, whose mother was Persian, and his older brother al-Amīn, whose mother was an Abbasid Arab—and al-Maʾmūn's own interest in Greek materials contributed to the temporary demise of this intellectual tradition.

In all these cases, the process of building a medical archive was connected to, and undertaken by, groups of learned practitioners that hailed from particular intellectual and ethnic origins and whose work and fortunes were connected to the rise and fall of their intellectual and ethnic groups. In other words, the process of making a humoralist archive in Arabic was connected not only to the organic process of Arabization of the practice and practitioners but also to the consolidation of an identity in Arabic—in this case, the Syriac humoralists. The consolidation of the archive meant the consolidation of such an identity—not as a foreign imported one, dependent on visitors and emigres, but rather as a local Arabized identity. At stake was the emergence of the Arabic humoralist, which could only materialize in the shadow of an Arabic humoralist archive.

The medical archive is therefore not only a collection of medical texts but also the stories, mythologies, narratives, and genealogies that described these texts and legitimized the said archive. In Derrida's theoretical formulation, the archive conditioned the central events that legitimized its production. The production of a humoralist Arabic archive emphasized the centrality of Hellenistic learning and of humoral medicine at the same time that it relied on such centrality to legitimize itself. As such, as Ḥunayn and others were laboring to consolidate the burgeoning archive, they were also building a historical narrative and a genealogical structure that emphasized the centrality of Greek medicine, its connection to Syriac Hellenism, and its legitimacy as the key medical practice of the emerging learned body politic of the Islamicate landscape. The eventual success of this process—that is, the making of an Arabic humoralist archive—meant that the genealogical mythology and the identity narrative adopted by the humoralist physicians, the archive makers, was also disseminated, adopted in the larger learned circles and considered to be the central narrative describing the history of medicine in the Islamicate landscape. Here, I argue that the production and consolidation of a medical archive was necessarily accompanied by the production of a historical narrative and an identity that mirrored such an archive and legitimized its existence. Once the process was completed, a humoralist from Damascus, Cairo, or Granada became the descendent of Hippocrates, Galen, and Ḥunayn, and the guardian of this legacy as materialized in the archive.

CONCLUSION

The modern scholarly focus on the life of Greek texts in the Islamic context engendered the notion of "Greek heritage" as a marker of a unique intellectual historical

[68] See Shefer-Mossensohn and Hershkovitz, "Early Muslim Medicine" (cit. n. 9); and S. A. Husain and P. K. Subhaktha, "Ayurveda during Abbasid's Period," *Bulletin of the Indian Institute of History of Medicine (Hyderabad)* 30 (1999): 27–34.

trajectory.[69] "Greek heritage" often referred not only to Greek writings but also to ideas and views that were seen as emerging from writings and discussions in classical antiquity. The use of "Greek heritage" as an analytical concept relied on a particular chronological arrangement that placed temporal and intellectual distance between commentators and authors of Hellenistic texts, who are makers of such heritage, and those who contributed to its life in the Islamic context.[70] In this context, the Translation Movement became a marker of chronology, creating not a continuity between Greek materials and their Arabic counterparts but rather a clear line of demarcation that seals off the Greek heritage as "Greek" and inaugurates Islamic Hellenism as "Arabic" or "Greco-Arabic." As such, "Greek heritage" becomes a repository of meaning, and a locus of intellectual worth. To be sure, Abdelhamid Sabra's foundational work on the insular nature of Greek heritage has been subject to significant rebuttals and deep questioning by many scholars, who have argued that Muslim and Arabophone authors appropriated and fully integrated Greek works. This argument has lent legitimacy to the nomenclature "Greco-Arabic" as descriptive of science and medicine during the medieval period.

My concern here, however, is not with the traditional narratives where Islamic sciences are seen as a prelude to European knowledge, or as Greek knowledge put on ice. Rather, I am concerned with the place of the Translation Movement as a chronological marker that separates "Greek" from "Islamic" or even from "Greco-Arabic." Here, translation is a key moment in Islamic history. It was the reason Greek knowledge seemed to encounter "Islam." The outcome of the translation—namely, the encounter between a coherent and foreign Greek heritage and an equally coherent indigenous Islamic core— becomes the entire intellectual history of Islam: a series of exchanges that extends from ninth-century debates on science and religion to twentieth-century debates on secularism and modernity. This chronological marker affects not only debates, public and scholarly, but also allocations of funds, archival restorations, and hiring and teaching in higher education. In other words, the chronology recreates itself.

In his *On the Postcolony*, Achille Mbembe rehabilitates the notions of *âges* and *dureés* as markers of chronology in the postcolony:

> By focusing the discussion on what I have called the "postcolony," the aim was not to denounce power as such, but rather to rehabilitate the two notions of *âge* and *durée*. By age is meant not a simple category of time but a number of relationships and a configuration of events—often visible and perceptible, sometimes diffuse, "hydra-headed," but to which contemporaries could testify since very aware of them. As an age, the postcolony encloses multiple *durées* made up of discontinuities, reversals, inertias, and swings that overlay one another, interpenetrate one another, and envelope one another: an entanglement.[71]

[69] See, most importantly, Franz Rosenthal, *The Classical Heritage in Islam* (Berkeley: Univ. of California Press, 1975). The notion of Greek heritage was and continues to be deployed in relation to local discourses around modernization. See, for example, Fauzi M. Najjar, "Ibn Rushd (Averroes) and the Egyptian Enlightenment Movement," *Brit. J. Mid. East Stud.* 31 (2004): 195–213.

[70] Take for instance the example of Aaron of Alexandria or Paul of Aegina. While both figures lived in the seventh century and may have lived and worked under Muslim rulers in Egypt and the Levant, they are studied as part of a Greek heritage that comes to Islam only a century later when the translation movement takes place. See also Sarah Stroumsa, *Freethinkers of Medieval Islam: Ibn al-Rawāndī, Abū Bakr al-Rāzī, and Their Impact on Islamic Thought* (Leiden: Brill, 1999).

[71] Achille Mbembe, *On the Postcolony* (Berkeley: Univ. of California Press, 2001), 14.

Mbembe's reformulations are useful in understanding the production of Islamic intellectual historical narratives. Here, "Islam" is posited as a set of relationships and a configuration of events that delimit a period in the "Medieval," characterizing it as particularly Islamic. Yet privileging these relations by way of constructing the category of Islam requires severing other preexisting relations, echoing the oft-criticized F. Renan, who explained that "being a Muslim is different from being anything else."[72] Indeed, the construction of the *âge* of Islam is a process through which Islam is rarefied as unlike anything else.

In contrast, a *durée* is ultimately a thematic construction, a period defined not by continuity but by affinity. A *durée* is not structured around chronology. Instead, it serves to reproduce chronology around a particular concept or locus of worth, the coherence of which is preserved by the *durée* itself. In this view, the study of Islamic sciences is organized around a *durée* of translation. Here, translation does not have a particular end, and is not plotted on a chronological scale. Rather, it is constructed as an entanglement that preserves a series of chronological interruptions and reversals and maintains the centrality of the Translation Movement as a maker and repository of intellectual value. In writing the history of science in the *durée* of translation, the historian is forced to contend with the unending demands of such entanglement. There is simply no escape from the centrality of "Greek heritage," as problematic a category as it may be.

While historians continue to critique the notion of "Islamic Sciences" as Greek knowledge kept on ice, they are forced to contend with a chronology that encapsulates their object between two translations, and that anchors their narratives to these signposts. Even more profoundly, the archive of Islamic sciences, be it metaphorical or physical, is also organized around translations. On the physical level, the centrality of the "Golden Age," as the product of the Translation Movement, conditions maintenance and preservation efforts in archives across the Middle East and Islamic world. Similarly, this centrality influences practices of acquisition by collectors and libraries—practices that are problematic on their own but that also profoundly influence the direction of scholarship in the West and beyond. More theoretically, the centrality of translation continues to push scholars into additional investigations of the preservation and transmission of Greek texts at the expense of other endeavors. Dismantling such chronology is necessary to fully appreciate the history of Islamic sciences in the ninth century and beyond, and to comprehend the meaning of translation and knowledge transmission in the medieval Islamic context.

It would be a mistake to think that the entanglement of the *durée* of (Greek-Arabic) translation is effectual only within the corners of the field dedicated to Islamic science and medicine. The Translation Movement plays a key part in the master narrative of the history of (Western) science and medicine. In fact, Sabra's work, which remains one of his most cited works among nonspecialists, and solidified the concept of appropriation along with other work proving the "contributions" of Islamic sciences, has further highlighted the central role of this "movement" as a beginning of the "Islam" chapter. In the background, this view maintains a certain level of stability and coherence to scientific and medical practice, which is capable of moving from one place to another through a series of translations. In other words, the centrality of translation as a

[72] Ernest Renan, *L'islamisme et la science* (Paris: Calmann-Lévy, 1883).

chronology-defining event obscures the ongoing processes of translations that occur consistently within scientific and medical practice. It also obscures the incoherent, dynamic, and iterative process of knowledge production, which cannot and should not be summarized or contained in a "movement" of translations. As the articles in this volume demonstrate more lucidly than I could, translation has always been a dynamic and integral part of knowledge production in different parts around the world and in many periods.

Translations do not stop. In the postcolony, translation is fraught with trouble. It is a process whereby a new linguistic order is established and consolidated. This linguistic order is not necessarily one in which the destination language resides at the top. In fact, in many cases and especially in scientific translations, the consistent and diligent efforts to translate scientific writings from the language of the former metropole(s) to the local language of the colony becomes a ritualized act of remembrance of how the metropolitan language remains, and will always be, on top of the global linguistic regime. Translation here is also an act of subscription, whereby the colony subscribes to the global economy of scientific knowledge, paying its dues in the form of journal subscriptions, international rights for books, and translators' salaries. In some cases, such as in medical education in Egypt, the unending cost of such subscription, and the unrelenting pace required for effective translations, motivated a shift in the direction of translation. Instead of medical books being translated into Arabic, students and patients are translated into English. The dream of cheaper and fuller subscriptions continues to crash into the reality of a new, hybrid Egyptian Anglicized Arabic in which Egyptian medical education persists. It may be acknowledged that this process is also one of archive making (or, at least, it aims to be). But this archive is often forced into a derivative position. It relies on the language on top and looks to replicate such archives in the colony's language.

The archive of medieval Islamic medicine was anything but derivative. It did not look to catch up to or to replicate a Greek archive. Instead, it regarded the classical materials as resources or raw materials, which, precious as they may have been, required purification, disciplining, and organization, and which invited intellectual activity. As such, the task of language crossing (or translation) was only part of the larger process of archive construction. In fact, the legacy of prominent translators such as Ḥunayn ibn Isḥāq is one of rejecting word-by-word translations and embracing editing, completing, revising, and translating based on meaning. It was a process through which a body of knowledge was reorganized and by which a new linguistic regime was developing, with Arabic ever so briefly at the top. As such, I argue that the study of translations in the Islamic context and beyond needs to be part of a larger investigation of archive making, in which the efforts of scholars, collectors, patrons, and translators are studied as parts of a larger whole.