

ONE

Romance and Reason: Islamic Transformations of the Classical Past

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In the middle of the ninth century CE, Hunayn ibn Ishaq was hunting for Greek manuscripts. As he tells us, the Arabic translator was looking for, among other works, copies of books by Galen, the famous philosopher and physician who had lived over six hundred years earlier. Hunayn writes:

None of our contemporaries has, up to this point, come across a complete Greek manuscript of *De demonstratione*, despite the fact that Jibril [ibn-Bukhtishu] spent an enormous amount of effort looking for it, just as I myself searched for it most intensively. I traveled in its search in northern Mesopotamia, all of Syria, Palestine, and Egypt until I reached Alexandria. I found nothing except about half of it, in disorder and incomplete, in Damascus.¹

This manuscript-hunting journey was far more than one antiquarian's idiosyncratic whim. A Christian physician born in 808, Hunayn was perhaps the most famous figure in a revolutionary and far-reaching cultural moment: the translation of Greek into Arabic.

Over the course of a century and a half—from just after the nascent Abbasid dynasty's conquest of the reigning Umayyad caliphate in 750 to the end of the tenth century—nearly all extant classical Greek sources, including science, philosophy, medicine, magic, astrology, and parables and popular literature were rendered into Arabic; the “high” literary genres of poetry, drama, and history were the only exceptions. Through their philologically sophisticated translations, Hunayn and others created an Islamic technical and philosophical vocabulary that continues to serve Arabic, Persian, Turkish, and other Islamic languages today. This massive project involved generations of translators, commentators, and patrons, in fact most of the elite of early Abbasid society.

Along with translations of Persian and some Indian sources, the incorporation of the classical Greek heritage shaped the intellectual contours of the Islamic

world up to the dawn of modernity. This was not only a Muslim project. Hunayn was one of many Christians who were instrumental in translating Greek books first into Syriac and then into Arabic. Jewish scholars such as Sa'adia Gaon, Maimonides, and Judah Ha-Levi, as well as others, were instrumental in incorporating Greek ideas, via their Arabic translations, into Jewish theology. Jewish translators also rendered the Greek classics into Hebrew via Arabic; one example of such a translation, Zerahyah ben Isaac ben Shealtiel Hen's translation of Aristotle's *De anima* (National Library of Israel Ms. Heb. 1108) is included in this exhibition.

The translation movement ended in the tenth century not because of a shift in attitudes toward the classical past, but rather because translation itself had become obsolete. Avicenna, al-Farabi, Averroes, and other scholars, philosophers, physicians, and scientists had already moved beyond the classics, establishing a self-perpetuating intellectual culture that was free to challenge as well as elaborate the ancient sources.

The Exhibition

The exhibition *Romance and Reason*, jointly conceived by the Institute for the Study of the Ancient World and the National Library of Israel, considers this unique cultural interaction. The exhibition includes manuscripts from a wide range of partner institutions and explores how Islamic thinkers and artists conveyed, conceived, and reimagined—in words and in pictures—the ancient Greek classical heritage.

Bringing two aspects of this interaction into conversation for the first time, the exhibition focuses in one section on the Islamic Alexander Romance, the Persian and Turkish versions of the legendary account of the life and exploits of Alexander the Great. Muslim fascination with Alexander derives from a cryptic reference in the Qur'an, further elaborated in early Islamic exegesis, particularly the genre of “stories of the prophets” (*qisas al-anbiya*). Alexander stories reached their fullest expression, though, in medieval Persian poetry and its later Ottoman Turkish imitators. In the hands of the



poets Abu al-Qasim Firdausi, Nizami Ganjavi, Amir Khusraw Dihlavi, and others, the Islamic Alexander—Iskandar—is more than a military hero (fig. 1-1). The fourth-century-BCE Macedonian conqueror becomes a philosopher, a mystic, an explorer (fig. 1-2), and a paragon of just rule. The spectacular illuminated manuscripts of these works are some of the most beautiful examples of medieval Islamic art (fig. 1-3).

The exhibition's second main focus is medicine, the exact sciences, and philosophy. From the very beginning of the translation movement—as evidenced by Hunayn's hunt for Galen's lost works, but also by his Arabic renditions of Plato, Aristotle, Hippocrates,

and Dioscorides—this aspect of the classical tradition was of central concern to Islamic scholars. Based on these translations of early sources, Muslim, Jewish, and Christian scholars swiftly surpassed the classical authorities, adding to an expanding body of scientific knowledge through theoretical discoveries, experiment, and observation. Leading figures were masters of, and contributed to, multiple disciplines that we now consider as separate and distinct; the eleventh-century

Fig 1-1. *Khamsa*. Folio 108 recto: Iskandar Fights the Zangi. Author: Nizami Ganjavi. Ink, opaque watercolor, and gold on paper, Iran, 1446. NLI: Ms. Yah. Ar. 1003. Checklist no. 6.

polymath Avicenna, for instance, wrote *The Canon of Medicine* (*Al-qanun fi al-tibb*), which became the standard medical encyclopedia throughout the medieval world, as well as the philosophical treatise *The Book of Healing* (*Kitab al-shifa'*), and works on astronomy, alchemy, geography, psychology, Islamic theology, logic, mathematics, physics, and poetry. Surprisingly, as the exhibition shows, these wide-ranging explorations included subjects that we now consider to be pseudoscience and beyond the intellectual pale: astrology, alchemy, and catalogs of strange beasts and monsters (fig. 1-4). In this sense, *Romance and Reason* illuminates how the fluid definition of science itself has shifted over time.

Legends of a long-ago Macedonian conqueror and geometry, physics, and surgery: though on the surface the two halves of *Romance and Reason* may seem unrelated, there are deep cultural and historical connections between them. Alexander the Great was a pivotal figure in the Islamic world not only because the poetic retelling of his life was didactic or diverting. Tutored by no less a figure than Aristotle, Alexander was seen as a philosophical hero, and philosophy proper was a crucial part of his legendary biography in the Islamic tradition. Nizami Ganjavi, the twelfth-century Persian poet whose *Book of Alexander* (*Iskandarnamah*) established Alexander as a major epic and romantic figure in the Persian literary canon, devoted nearly half of that work to Alexander's debates and discourses with Greek philosophers.

From a historical perspective, Alexander's fourth-century-BCE conquest of Egypt, the Achaemenid Persian Empire, and indeed much of the ancient world laid the foundation for the encounter between Islam and classical Greek thought that took place under the Abbasids centuries later. Ultimately, the reason that our intrepid Hunayn could search for Greek manuscripts in Mesopotamia, Syria, Palestine, and Egypt—and did not have to travel to the neighboring Byzantine empire or to Greece itself—is because Alexander launched a hybrid, Hellenistic culture that flourished and developed throughout the vast area of his conquest. In this way, the Islamic sciences and the Islamic Alexander Romance continued

a long-established Hellenistic tradition in Babylonia, Iran, Egypt, and elsewhere.

A Manuscript Reunion

Aside from this mutually illuminating reunion, as it were, of Alexander the Great and science and philosophy, *Romance and Reason* is unique for a second and equally important reason. More than half the manuscripts in the exhibition, from Princeton, the U.S. National Library of Medicine, and the National Library of Israel, owe their presence at these institutions to a single and singular manuscript collector, Abraham Shalom Yahuda. Yahuda was born in Jerusalem to a mixed Sephardi and Ashkenazi family in 1877. Fluent in Hebrew, European languages, and Arabic from a young age—the family spoke Arabic at home—Yahuda left Palestine for Germany in 1895 to study Oriental Studies and Semitics with Ignaz Goldziher and Theodor Nöldeke, both pioneers in the field. After completing his dissertation on the medieval Jewish Andalusian mystic and philosopher Bahya ibn Paquda in 1905, Yahuda taught at Berlin's Hochschule für die Wissenschaft des Judentums (Higher Institute for Jewish Studies) and held the first-ever professorship in Judaic Studies at the University of Madrid. However, soon after his appointment to a position at the emerging Hebrew University in 1920, Yahuda had a falling out with the Zionist leaders in Jerusalem and established himself in London.²

Over the ensuing twenty years, Yahuda continued his scholarship, delivering public lectures and writing books and articles. But he is best known today as a collector and dealer, one whose academic training and expert eye helped him amass an astounding collection of Islamic manuscripts.

Yahuda described his collecting activities in a 1928 letter to Alfred Chester Beatty, the Irish-American mining magnate and manuscript enthusiast who was Yahuda's friend (and also his client):

I have now a nice little collection of very valuable and rare old MSS. by famous

<p>کمان ره روشن بود در شاه تاجار زنجار شش بر شاه تا نین غار باشا گوشت که گنجینه و کمان درین غار</p>		<p>نخپش کمر بر کمر دوخته کجوخینسه و انجا خوشکیمه بغار از دمار توان ایستن غلامی دو با او در کجکس هر اسپنده شد مردی در پست شامی که در از یار غار دین غار کتایه کار رجا بر و راه روشن شد در که جوینده را سوی وره بود که چون مید به روشنی ایست بر آمد دعا گفت بر جان شاه ز گوگرد او کرد او سوخت</p>	<p>در اندیش تخی کار چنین کند کار جوینده کار دراز پیاوه سوی غار خوشه پست بید به غار اندر آورد رعی سوی آن رخت مار یک که شد جوینده مر که انجا جواش که می با در کاره که می افت از جا و روی فرود شد در آن چه شنیده جوید اندر و کان کوگرد ازین جا کاشن را در آ مکوگرد از آن کیمیا گشت</p>	<p>بغارت میر کنج ما چنین سبب خستین و کیمیا راز سکندر رکعت را دوروی تند زنجاران را کند زای سکاتی که بی دید ز نای سکا جو کجی شد آن افش آمدید که کرد فرود در غار یک فرود زده جاسی بود در رسین به میان بهت مردی پراگندی پیش کرده بود که مایه بودن برودی سبب چرخه کجی درین غار گشت</p>	<p>رعی از در صافه حوشه بچک بد زمان شش و کیمیه ازین غار با عین تان در آن زه در پیش فرزان کجوخینسه غار س که پست بسیج غار شد شهر یار بفر کتایه ن شهر رجا از آن روشنی به پس رجا در آن روشنی که کجی نشان خست از آن ش کیمیا خبر داد که گشت ندر شاه در و کان کوگرد او سوخت</p>
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authors, which I picked from among three collections I bought at Damascus, The [sic] Lebanon and Cairo, and which have again been selected from three old libraries which belonged to famous scholars of the 15th & 16th centuries and remained in the hands of their families up to now.³

Reminiscent of Hunayn's manuscript-hunting journeys centuries earlier (and, indeed, in some of the very same locations), Yahuda succeeded in amassing a diverse collection of Arabic, Persian, and Turkish manuscripts covering all the fields of Islamic intellectual history. As a dealer, Yahuda sold manuscripts to the British Museum, the University of Michigan, and Beatty. Between 1940 and 1942, Yahuda sold his collection of medical manuscripts to the U.S. Armed Forces Medical Library, now known as the U.S. National Library of Medicine. In 1942, the year of his emigration to the United States to take up a teaching position at the newly founded New School for Social Research in New York, he sold the bulk of his collection—5,321 manuscripts—to Robert and John Garrett on behalf of Princeton University. In a posthumous bequest, he willed his remaining personal collection of manuscripts—including 1,186 Islamic manuscripts, Hebrew and Latin manuscripts and incunabula, theological writings by Isaac Newton, and documents relating to Napoleon's conquest of Egypt—to the Jewish National and University Library, today's National Library of Israel.

Such a large number of Yahuda manuscripts from different institutions have never before been assembled together, and the thirty-eight Yahuda manuscripts in this exhibition give a taste of the intellectual curiosity and scholarly acumen of this important collector.

Yahuda, it is fair to assume, would have been particularly pleased, and not only because it is a reunion of his



Fig. 1-2. *Khamsa*. Folio 221 recto: Iskandar Travels to the Cave of Kay Khusraw. Author: Nizami Ganjavi. Ink, opaque watercolor, and gold on paper, Northern Iran, May 7, 1675. MLM: MS. M.469. Checklist no. 17.

Fig. 1-3. *Khamsa*. Recto: Iskandar in the Enchanted Garden. Author: Nizami Ganjavi. Ink, opaque watercolor, and gold on paper, Iran, Asterabad, ca. 1560. AMSG: S1986.284. Checklist no. 22.



own hard-won and much loved manuscripts. A man who lived and worked in the midst of a conversation among cultures—in the religiously and culturally diverse Jerusalem of the late nineteenth century, as a Jewish scholar of Islam and Judaism, and as a public intellectual in Europe, the Middle East, and America—Yahuda also worked to further understanding between them. Toward the end of his life, Yahuda and his wife, Ethel, imagined establishing an Arab-Jewish research center in Jerusalem; his personal manuscript collection would have served as its centerpiece. His untimely death in 1951, however, meant this lofty goal never became a reality.

We hope that *Romance and Reason*, both in its portrayal of the cultural dialogue between ancient Greece and medieval Islam and in its presentation of this central aspect of Islamic art and culture to a twenty-first-century American audience, can fulfill, even if only in part, Yahuda's vision.

Fig. 1-4. 'Alai's *Book of Pleasures* (*Nuzhatnamah-yi 'Alai*). Folios 57 verso, 58 recto: Black Lead Associated with Saturn; Lead Associated with Jupiter and Iron Associated with Mars. Author: Shahr-mardan ibn Abi al-Khayri. Ink and color, with gold on thick cream paper, Shiraz and Tabriz, November 17, 1526. NYPL: Spencer Pers. Ms 50. Checklist no. 59.

Transformations, Preservations, and Classical Pasts

With Yahuda's multiple identities and cultural affiliations in mind, we can turn to one of the central concerns of the exhibition and this catalogue. The issue at hand might best be raised as a question: What does *transformations* mean in the exhibition's subtitle, *Islamic Transformations of the Classical Past*?

To begin with, "transformation" is a conscious and pointed substitute for the earlier notion of "preservation." In previous European scholarship, and still today in some quarters of the popular imagination, Arabic translators like Hunayn ibn Ishaq had a clear (if unconscious) goal: preserving the Greek classics during Europe's dark ages until Galen, Aristotle, Plato, and Euclid could be repatriated during the Renaissance. In this conception, the Islamic engagement with Greek culture was of secondary importance to a more lofty cultural project, namely protecting and shepherding the kernel of classical civilization to its home in the West.

Romance and Reason aims to show how the Islamic engagement with the classical intellectual heritage—in translation, commentary, integration, and full-throated debate—was in no way passive or derivative. Islamic thinkers actively expanded, and even argued with, the body of Greek knowledge that translators including Hunayn had first rendered into Arabic. Hunayn's younger contemporary Abu Bakr Razi, a pioneering philosopher and physician who died in 925, could already write a book entitled *Doubts on Galen* (*Al-shukuk 'ala Jalinus*) that criticized the ancient physician's theory of the four humors. Moreover, that active engagement was not unified, but multiple, changeable, and diverse—truly "transformations" rather than a singular "transformation."

If the earlier notion of Islamic preservation of the classical heritage has been debunked, the exhibition also aims to make a more subtle point that has been intimated above. As the contributors to this catalogue, all leading scholars in their fields, make clear in their essays, just what we mean by "classical past" might have

to be revised as well. The Greek intellectual project that began with Pythagoras, Galen, and Euclid continued until the Islamic conquest in 650 CE and afterward. This is true not only in the sense that ancient manuscripts continued to be copied and commented upon right up to the moment before Hunayn walked into a scriptorium in a monastery in Alexandria or into a private library in Damascus, though the history of the manuscript as an object is also central to this story. As mentioned, ancient Greek thought continued to engage scholars throughout the Hellenized world, and classical discoveries, theories, and legends were reshaped in the light of other traditions and local innovations.

The contributions to this catalogue develop and underscore these points, adding depth and breadth to the items collected here. As Leigh Chipman points out in her essay on Islamic medicine, at various points in history Hippocrates and Galen vied for primacy with Indian and Chinese medical theories. The former won the day, in part, because of the flexibility of the Hippocratic theory of humors. As the beautifully illustrated manuscripts of the Arabic recension of Dioscorides' *De materia medica* (first translated by our own Hunayn) show, Greek medicine in its Islamic guise was flexible enough to incorporate newly discovered medicinal plants and minerals from the far-flung corners of the Islamic world. Just as important is Chipman's point that, while most of the history of scholarship has focused on Islamic medicine as it progressed up to the reintroduction of the medical tradition to Europe during the Renaissance, after the sixteenth century Islamic medicine continued to develop in Turkish and Persian.

The same insights come to the fore in Tzvi Langermann's essay on the exact sciences. Geometry, both as a purely theoretical discipline and as a prelude to astronomical observation, was almost entirely dependent on, and continued to elaborate, the Greek tradition. Nasir al-Din Tusi, a leading Persian astronomer of the thirteenth century, composed a highly influential recension of Ptolemy's *Almagest*, the second-century Alexandrian's model of planetary motion that remained the standard until Kepler. As Langermann writes, Tusi's

هو ابي قال **تعالى** وقدره من انزل الاله بو مرتبه
شعر عامر و دو دكلدر **انما** مثل اتصالات كواب
حوادث بقلية به خبريه و شتره استدلال تكدر بطريق
العموم و انخاص و زرتيه استدلال تكدر بطريق انخاص
و بو قسمك بر اصل شتر عيه استنادي بو قدر و قابل
اعتقاد و كلدرا اول جلدن مرد و دستر عدد كه رسول الله
بيورر **انما ذكر** النجوم فامسكو **قال النبي** م تعلموا من النجوم
ما تصدون به في البر والبحر ثم انتهى الحديث **شيخ علماء**
الدوله عرود آدوكنا بن بيورر كه چن سن مطرك
اتصالات علويه سبب ايله حادث اولد و عن بلك ديلسك
الله تعالينك بو قولن قرارت ايله كه بيورر ففتحنا ابواب
السماء بما مننهم و فتح الباب انضرف قمر در بر كو كبدن
بر كو كب آخره اتصاليه كه اول كو كب خانم سي كو كب
اوله مقابل اوله مثلا قمر كه زمره دن مرجه انضرفي
كبي و دخی بيورر كه اكر علم نجوم علم انبيا ايد و كن ملك
ديلسك بو آيتي قرارت ايله فقطر نظره في النجوم فقال
انني سقيم و بنى عليه السلايك من آمن بالنجوم فقطر
ديد و كندن مراد شتر يعني نجومك تدبير عالمن مستقل اولد
امر الله مستخر اولد و غنه بلك معتقد اولد كافر ديد

synthesis and reworking represented a crucial advance in the field.

In contrast to the unadulterated classical lineage of Islamic geometry, however, computational mathematics, observational astronomy, astrology, and alchemy, like medicine, owed a wider cultural debt. The preparation of astronomical tables, the *zij*, depended on and continued earlier Babylonian, Indian, and Iranian observational traditions. Indeed, the mathematical legacy inherited by Islamic scholars was itself already a hybrid science, thanks, again, to the Hellenistic encounter between Greek and ancient Babylonian civilizations in the wake of Alexander the Great's conquests. Islamic thinkers such as Tusi and his fifteenth-century colleague Ghiyath al-Din Jamshid al-Kashi expanded this work not only theoretically but through observation. As Langermann points out, al-Kashi improved and developed astronomical instruments at the court of Ulugh Beg in Samarqand, and Tusi, with the patronage of the Mongol emperors, constructed an observatory at Maragha, located near the contemporary Iranian city of Tabriz. The Maragha observatory attracted scientists from throughout the Islamic world and even as far as China, an example of cultural synthesis that is far more complex and rich than the binary model of Greek-Islamic intellectual transfer would suggest.

This point is borne out artistically as well. A sixteenth-century Ottoman Turkish handbook on twelve major scientific fields (fig. 1-5) includes illustrations depicting the twelve signs of the zodiac and the planets. However, here the familiar figures of Venus and Mars are depicted with many arms, like Hindu gods, but in Chinese costumes: Venus's four hands bear gifts, and Mars holds a severed head in one hand and brandishes a sword in his other three.

The artistic tradition of illustrating the Islamic Alexander Romance is likewise diverse and, just as importantly, reflects changes in politics and culture. As Rachel Milstein discusses in her contribution, the tradition of painting Alexander the Great goes back to the Ilkhanid period in the thirteenth century. During this period of Mongol rule, even before their conver-

sion to Islam, the visual representation of Alexander's story reflected the conquerors' desire to become, and be taken for, a legitimate local dynasty. Alexander, the Greek who became ruler of all of Asia, had a particular resonance for the Mongols, themselves warriors from a distant corner of the known world who became its kings. In later periods, in contrast, the Alexander cycle was often not illustrated at all.

Julia Rubanovich's essay on the Islamic Alexander Romance both provides a survey of the diverse sources of the classical Persian renditions of Alexander's story and discusses how various medieval poets framed Alexander's character and the legends surrounding his exploits. In delving into the origins of the epic retellings of Alexander's story—by Firdausi, Nizami, 'Abd al-Rahman Nur al-Din Jami, and Dihlavi—Rubanovich precisely illustrates how multiple traditions contributed to the Islamic engagement with the Greek world: the contemporaneous Greek histories; later Greek, Syriac, and other versions of the Alexander Romance; Zoroastrian Persian demonizations of the Macedonian conqueror; Qur'anic references to "The Two-Horned One," taken to be Alexander; as well as oral versions and other literary streams contributed to the later works. However, as Rubanovich shows, the poets were not slaves to these or other sources. Adding and subtracting from the menu of types and episodes available to them, Islamic writers painted distinct portraits of Alexander the Great: as adventurer, as lover, as king, as prophet, and as philosopher.

Philosophy is probably the best-known domain in which Islamic thinkers engaged and contributed to the classical tradition. Some of the leading Islamic philosophers have been mentioned already, and other illustrious names could be added to that list. It may be a surprise, then, that philosophical manuscripts only play a small role in *Romance and Reason*. This is, in part, because Islamic philosophy is relatively well-known, but primarily because the lack of illustrated philosophical manuscripts complicated the selection of examples that would engage the general public. The curatorial team has attempted to ameliorate the absence of philosophical texts by displaying scenes that portray Iskandar as

participating in philosophical disquisitions with, among others, Aristotle and Plato, key philosophical figures that greatly influenced later Islamic philosophy.

Steven Harvey's contribution to these pages is therefore all the more crucial, as it constitutes an in-depth study of the Islamic philosophical world that could not be presented in the gallery space. He provides a brief history of Islamic philosophy, focusing on its key figures and the centrality of Aristotle to their work. For those more familiar with the European philosophical canon, it should come as no surprise that Aristotle, first among philosophers, provides the strong intellectual trunk from which Islamic thinkers branched out and developed. Harvey's essay provides an important balance to what has come before in another way. As he discusses, logical reasoning and methods also provided the "rules of the game" for intellectuals like the mutakallimun, the scholastic theologians who argued for the truth of revealed religion on rational grounds, and even for mystics like al-Ghazali, who rejected philosophy as such. However, philosophy was not without its dangers. If the exhibition's title, *Romance and Reason: Islamic Transformations of the Classical Past*, might at first blush seem to chronicle a happy meeting or multicultural fusion, Harvey reminds us that sometimes the price paid by those who identified strongly with the classical past and its intellectual models could be high; the stakes were real. He points to the example of Averroes, the illustrious physician and philosopher of thirteenth-century Andalusia, who was imprisoned for his writings, and to the statement of his contemporary Ibn Sa'id al-Andalusi, who wrote: "In Spain, philosophy is an abhorred field of inquiry that cannot be pursued openly by its adherents, who, for the same reason, must keep their works hidden."

A long gulf, thus, separates Hunayn ibn Ishaq, the manuscript hunter whose mission was sanctioned (and funded) by the Abbasid powers that be and Ibn Sa'id's depiction of philosophy as abhorred in medieval Spain. But that is exactly the point: the Islamic encounter, adoption, confrontation, and synthesis with the classical past is not linear or binary in any sense. It is precisely

transformations, multiple, changing, even ongoing—and richer for it.

- 1 Gutas 1998, 179.
- 2 Ukeles 2017.
- 3 Yahuda to Chester Beatty, July 13, 1928, National Library of Israel Archives, MS. VAR. Yah 38.217; Beatty A. Chester, 1927–42; cited in Ukeles 2017, 8.