

Robert G. Morrison. *Merchants of Knowledge: Intellectual Exchange in the Ottoman Empire and Renaissance Europe*. Stanford, CA: Stanford University Press, 2025. 342 sayfa ISBN: 9781503636323.

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Despite geographical distances, topographical obstacles, political boundaries, and cultural differences, history has repeatedly demonstrated that we live in open spaces where distances, obstacles, boundaries, and differences are constantly crossed, renegotiated, and redefined. Among the infrastructures that enabled such productive transgressions are commerce and economic activities, sometimes surpassing in importance strategic political alliances. It is precisely here that Robert G. Morrison's *Merchants of Knowledge: Intellectual Exchange in the Ottoman Empire and Renaissance Europe* makes its contribution to our understanding of the processes of translation, transmission, and transformation of knowledge.¹ Unlike works that focus on the “what”—the objects of transmission in the form of texts, ideas, or instruments—and which dominate much of the historiographical narrative, Morrison's *Merchants of Knowledge* shifts our perspective to the *where*, *how*, and *with whom* this knowledge moved. He grounds the ideas on astrology, astronomy, philosophy, esotericism, medicine, and mechanics within the material contexts that enabled

- 1 Although Robert G. Morrison opposes the use of “transmission” due to its unidirectional—and therefore exclusionary—implications, I would argue that the connotations depend on the context in which it is employed. When framed within a multidirectional and interactive model of knowledge exchange, “transmission” need not imply a simple, linear movement of ideas from one culture to another. See Robert G. Morrison, *Merchants of Knowledge: Intellectual Exchange in the Ottoman Empire and Renaissance Europe* (Stanford, CA: Stanford University Press, 2025), 2.

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and facilitated their circulation. Intermediaries, or rather, mediators—a network of Jewish scholar-merchants who frequently traveled across the Eastern Mediterranean between Ottoman territories and the Veneto in Northeastern Italy—emerge as protagonists in Morrison’s narrative.² These mediators are the merchants of knowledge, who Morrison describes as having “recognized and bridged differences between regions,” thereby filling the “mediating space” of the Eastern Mediterranean.³

Before proceeding further, it is essential to understand the significance of the spatial dimension of Morrison’s narrative. From 1450 to 1550—that is, the period of Morrison’s study, which coincides with what is commonly referred to as the Early and Middle Italian Renaissance—the Veneto became a major intellectual center due to two cities located within it: Venice and Padua.⁴ An archipelago of islands in the Adriatic Sea, Venice rose to power as a maritime trading city-state, the Republic of Venice, with an economy heavily reliant on commerce, banking, and shipping. After defeating the Genoese, their Mediterranean rivals, at the turn of the fifteenth century, the Venetians attained unprecedented hegemony over the Eastern Mediterranean routes.⁵ The same century, and particularly in 1474, witnessed the issuance of the Venetian Patent Statute, which is regarded as the first formal codification of intellectual property rights in Europe.⁶ The statute attracted a wide range of professionals—

2 The word “mediator” better describes the roles played by the merchant of knowledge, as they were not merely “intermediaries” who facilitated the mechanical movement of texts and ideas, but were actively involved in the interpretation, translation, and adaptation of knowledge as they transmitted it.

3 Morrison, *Merchants of Knowledge*, 214.

4 Information on the Republic of Venice, and especially during the Italian Renaissance is taken from Eric Cochrane, “Science and Humanism in the Italian Renaissance,” *The American Historical Review* 81, no. 5 (December 1976): 1039-1057; Michael Knapton, John E. Law, and Alison A. Smith, eds., *Venice and the Veneto during the Renaissance, The Legacy of Benjamin Kohl* (Florence: Firenze University Press, 2014); Dennis Romano, *Patricians and Popolani: The Social Foundations of the Venetian Renaissance State* (Baltimore and London: The John Hopkins University Press, 1987); Margaret L. King, “The Patriciate and the Intellectuals: Power and Ideas in Quattrocento Venice,” *Societas: A Review of Social History* 5 (1975): 295-312; Marek H. Dominiczak, “On Art, Wealth, and Power: The Venetian Republic,” *Clinical Chemistry* 63, no. 11 (November 2017): 1783-1785, <https://doi.org/10.1373/clinchem.2016.266858>.

5 Susan Roce, “Modon, Battle of,” in *The Oxford Encyclopedia of Medieval Warfare and Military Technology*, ed. Clifford J. Rogers (Oxford: Oxford University Press, 2010), 13-14.

6 For more information on the Venetian Patent Statute, check Luca Molà, “Renaissance Venice: A City of Innovation,” in *Market Spaces, Production Sites, and Sound Landscape of European Cities: From History to Regeneration*, ed. Elena Svalduz (Padua: Padova University Press, 2022), 45-55; Ste-

scholars, engineers, technicians, artisans, architects, and merchants—whose migration to the Venetian state invigorated the city’s intellectual and cultural life. Among the results of institutional support for innovation in Venice, according to Luca Molà, is the “fostering of the transmission of knowledge and creating a virtuous circle of experts who often ended up communicating and doing business with each other.”⁷ The “virtuous circle of experts” Molà refers to seems to be almost synonymous with Morrison’s merchants of knowledge, the mediators who facilitated the exchange of ideas and texts across the Eastern Mediterranean, and along the maritime routes controlled by the Republic of Venice.

Padua, which came under the rule of the Republic of Venice in the early fifteenth century, was renowned for its university, founded in 1222.⁸ During the Renaissance, the University of Padua rapidly gained prominence due to the Venetian state’s policy on appointing distinguished scholars and increasing professorial salaries.⁹ As a result, the university excelled particularly in medicine, anatomy, and epidemiology. Among its most distinguished physicians were Andreas Vesalius (1514-1564), founder of modern human anatomy; Realdo Colombo (1515-1559), personal physician of Italian sculptor, painter, and architect Michelangelo (1475-1564); Gabriele Falloppio (1522-1562), after whom the fallopian tube is named; Girolamo Fabrizio (1533-1619), who is referred to as “The Father of Embryology”; William Harvey (1578-1657), the first physician to describe in detail the pulmonary and systemic circulation of the blood.¹⁰ Beyond medicine, the ideas of Paduan philosophers—who were predominantly Aristotelian—such as Nicoletto Vernia (c. 1420-1499), Pietro Pomponazzi (1462-1525), and Jacopo Zabarella (1533-1589), sparked debates over logic, natural philosophy, the nature of the soul, and the limits of human reason.¹¹ Any account of the University of

phen Pericles Ladas, *Patents, Trademarks, and Related Rights: National and International Protection*, Vol. I (Cambridge, MA: Harvard University Press, 1975), 6-7.

7 Molà, “Renaissance Venice,” 46.

8 For information on the University of Padua, see Arturo Castiglioni, “The Medical School at Padua and the Renaissance of Medicine,” *Annals of Medical History* 7, no. 3 (1935): 214-227; Giancarlo Andrioli and Giuseppe Trincia, “Padua: The Renaissance of Human Anatomy and Medicine,” *Neurosurgery* 55, no. 4 (October 2004): 746-755; Paul F. Grendler, *The Universities of the Italian Renaissance* (Baltimore and London: The Johns Hopkins University Press, 2002), 21-40.

9 Grendler, *The Universities of the Italian Renaissance*, 23.

10 Castiglioni, “The Medical School at Padua,” 219-222.

11 For philosophy in the University of Padua, see Cochrane, “Science and Humanism in the Italian

Padua, however, would be incomplete without mention of its contributions to theoretical and observational astronomy and mathematics. Although Nicolaus Copernicus (1473-1543), to whom the heliocentric model is attributed, studied medicine at Padua between 1501-1503, he was influenced by its vibrant philosophical and scientific culture.¹² Later in 1610, Galileo Galilei (1564-1642), then holding the position of Chair of Mathematics at the University of Padua, wrote his groundbreaking work *Sidereus Nuncius* (Starry Messenger), in which he presented his telescopic observations of the moons of Jupiter and the rough surface of the Moon.¹³

Within this context, Morrison's merchants of knowledge emerge as scholars who "recognized the concrete social and economic benefits of all sorts of exchange, intellectual and commercial. Exchange happened because exchange benefited the merchants of knowledge and their contacts, not because of the exigencies of the present."¹⁴ The figures Morrison focuses on are members of Candiotte-Jewish (i.e., from Candia, or Heraklion, the now capital of the island of Crete) merchant-scholar families who had ties with Padua and Candia.¹⁵ They were both merchants and scholars in the sense that they belonged to two worlds simultaneously: the intellectual as learned individuals who owned, copied, or authored works, and the economic through their mercantile activities. Morrison argues that his work differs from previous studies on transregional exchange in its emphasis on the transactional utilitarianism of his key actors—they translated and exchanged knowledge for commercial purposes.¹⁶ Moreover, Morrison offers a fresh perspective on the study of intellectual exchange by prioritizing the "zoom in" approach. In "Histories for a Less National Age," Kenneth Pomeranz wrote that one way to handle chronologically or spatial-

Renaissance"; for information on Vernia, check Grendler, *The Universities of the Italian Renaissance*, 287-88; on Pomponazzi, 290-296; on Zabarella, 252-253; 263-265. For more information on Pomponazzi also check, Paul F. Grendler, *Humanism, Universities, and Jesuit Education in Late Renaissance Italy* (Leiden and Boston: Brill 2022), 188-189, 192-194; 312-314.

12 Castiglioni, "The Medical School at Padua," 222; 226; Grendler, *Humanism, Universities, and Jesuit Education*, 242; Grendler, *The Universities of the Italian Renaissance*, 37; 105

13 Castiglioni, "The Medical School at Padua," 224; Grendler, *The Universities of the Italian Renaissance*, 265. For a translated copy of Galileo's *Sidereus Nuncius*, check, Galileo Galilei, *Sidereus nuncius; or A Sidereal Message*, trans. William R. Shea (Sagamore Beach, MA: Science History Publications, 2009).

14 Morrison, *Merchants of Knowledge*, p.2.

15 Morrison, *Merchants of Knowledge*, 3-5.

16 Morrison, *Merchants of Knowledge*, 5-8.

ly “large narratives” is to employ various scales, or what he called “zooming,” and needless to say, the study of intellectual exchanges is spatially broad.¹⁷ What we see employed in Morrison’s work is a focus on concrete examples—specifically, the texts composed and translated by the merchants of knowledge and their contacts—with each chapter from the second onward devoted to one of the following disciplines: judicial astrology; practical astronomy; philosophy; *Qabbalah*; theoretical astronomy; and pharmacology. The emphasis in Morrison’s work is on what he describes as “multidirectional intellectual exchange” in a space where Renaissance scholars in Europe learned theoretical mathematics and astronomy from the Islamic world, while the Ottomans imported European texts on medicine and technology.¹⁸

Nevertheless, Morrison’s most important contribution to the study of intellectual exchange is his detailed exploration of the network of the merchant-scholar families in the first chapter of his work. Here, Morrison’s study primarily draws on the Hebrew texts from the personal collection of Ulrich Fugger (d. 1584), now housed at the Vatican Apostolic Library. A member of the powerful and immensely wealthy Fugger family—a German Catholic banking and merchant dynasty from Augsburg—Ulrich was able to acquire manuscripts deemed superior even to those owned by the Pope himself.¹⁹ Fugger’s collection of Hebrew texts reflects a general trend in sixteenth-century Renaissance Europe toward collecting works in the Hebrew language.²⁰ This trend was primarily motivated by the desire to engage directly with biblical texts in their original language. The connection to the Veneto becomes apparent when one realizes that the Fuggers owned offices for their book acquisitions in both Venice and Padua.²¹

17 Kenneth Pomeranz, “Histories for a Less National Age,” *The American Historical Review* 119, no. 1 (February 2014), 18.

18 Morrison, *Merchants of Knowledge*, 12–14.

19 Anonymous, “Literary Intelligence,” *The Classical Journal* 13 (March–June 1816), 212. For more on the House of Fugger check, Mark Häberlein, *The Fuggers of Augsburg: Pursuing Wealth and Honor in Renaissance Germany* (Charlottesville and London: University of Virginia Press, 2012).

20 See Ilona Steimann, “Jewish Scribes and Christian Patrons: The Hebraica Collection of Johann Jakob Fugger,” *Renaissance Quarterly* 70, no. 4 (2017): 11235–1281; Ilona Steimann, “A Good Book is an Old Book? Hebrew Manuscripts and Prints in 16th-Century Christian Book Collections,” in *Between Manuscript and Print: Transcultural Perspectives*, ca. 1400–1800, ed. Sylvia Brockstieger and Paul Schweitzer-Martin (Berlin and Boston: De Gruyter, 2023), 89–109.

21 Morrison, *Merchants of Knowledge*, 8.

Morrison's work focuses on the Hebrew manuscripts that were authored, owned, or copied by the merchant-scholar families and sold to agents between 1538 and 1541.²² These families—the Delmedigos, Capsalis, Bolbos, Cohen Ashkenazis, Algazis, Galeanos, Hens, Astrucs, Nomicos, and Casanis—are Morrison's merchant-scholar families, and they were "intricately linked to each other" through marriage, education, and/or commerce.²³ Yet not all merchant-scholars had among them a merchant of knowledge: individuals who facilitated intellectual exchange by acting as brokers or agents in the intellectual trade, mediating between the owners/producers (scholars, copyists, owners) and consumers (patrons, collectors, libraries, scholars abroad). However the benefits they sought were not always financial—they sought social currency that allowed them to negotiate status and influence through their scholarship. Succinctly describing the role of merchants of knowledge, Morrison wrote:

Their [Merchants of Knowledge's] ability to ferret out opportunities and texts, always to accrue social capital, accounted for their effectiveness as scholarly intermediaries. The merchant of knowledge Galeano/Jālinūs was always on a quest for social capital; he acquired information that his contacts lacked, whether in Arabic, such as Fārābī's commentary on *De interpretatione* and Rāzī's *Manṭiq al-Mulakhkhaṣ*, or in Latin, such as Arnaldo de Villanova's theories of pharmacological computus and the *Almanach perpetuum*.²⁴

Moses b. Judah Galeano, referred to in Arabic texts by the name Mūsā Jālinūs (d. after 1542), is a merchant of knowledge who features prominently in Morrison's narrative. Morrison's interest in Geleano/Jālinūs began in 2011, when he discovered that Copernicus's heliocentric model—as first presented in his *Commentariolus* (Little Commentary)—may have been influenced by a mediator Morrison identified as Geleano/Jālinūs.²⁵ Questions regarding the sources that influenced Copernicus's work, particularly given that he cited no earlier astronomical works, have long persisted among historians of science. Victor Roberts in his article, "The Solar and Lunar Theory of Ibn ash-Shāṭir: A Pre-Copernican Copernican Model," was, perhaps, among the first

22 Morrison, *Merchants of Knowledge*, 15.

23 Morrison, *Merchants of Knowledge*, 15-29.

24 Morrison, *Merchants of Knowledge*, 213

25 Check, for instance, Robert Morrison, "An astronomical treatise by Musa Jalinus alias Moses Galeano," *Aleph: Historical Studies in Science & Judaism* 11, no. 2 (July 2011): 385-413. Morrison later published additional studies on Geleano/Jālinūs, such as, Robert Morrison, "A scholarly intermediary between the Ottoman Empire and Renaissance Europe," *Isis* 105, no. 1 (March 2014): 32-57

who noticed the close mathematical and geometric similarities between the lunar and planetary models of the Umayyad Mosque's *muwaqqit* (timekeeper) ibn al-Shāṭir (1304-1375) and those of Copernicus.²⁶ Roberts further elaborated on this connection with Edward Stewart Kennedy in "The Planetary Theory of Ibn al-Shāṭir," where they affirmed that that the mathematical models of ibn al-Shāṭir were identical to those used by Copernicus "only to the extent that the universes of the two individuals are geostatic [ibn al-Shāṭir's] and heliostatic [Copernicus's] respectively."²⁷ Subsequent scholars such as Otto Neugebauer, Noel Swerdlow, George Saliba, and F. Jamil Ragep, confirmed and expanded these findings, arguing that Copernicus had probably had indirect access to Islamic astronomical models, via Greek intermediaries or through translations circulating in Renaissance Italy.²⁸ Morrison's research indicates that Geleano/Jālīnūs may have been the missing link in this chain of intellectual exchange.

Morrison's hypothesis relies on "circumstantial" evidence that suggests that Geleano/Jālīnūs not only possessed knowledge of ibn al-Shāṭir's theories, but was also active in the Veneto as a merchant of knowledge between 1497 and 1502—a period that coincides with Copernicus's presence there as a student of medicine.²⁹ Morrison's hypothesis is further strengthened by the fact that Geleano/Jālīnūs wrote in both Hebrew and Arabic, later learned Latin, and, more importantly, belonged to one of the aforementioned merchant-scholar families known for their intellectual and commercial ties with Christian circles in Europe.³⁰ From his major work in Hebrew, *Ta'alumot ḥokmā* (Puzzles of Wisdom), we learn that Geleano/Jālīnūs spent a substantial time

26 Victor Roberts, "The Solar and Lunar Theory of Ibn ash-Shāṭir: A Pre-Copernican Copernican Model," *Isis* 48, no. 4 (December 1957): 428-432.

27 E. S. Kennedy and Victor Roberts, "The Planetary Theory of Ibn al-Shāṭir," *Isis* 50, no. 3 (September 1959), 227.

28 See Otto Neugebauer and Noel M. Swerdlow, *Mathematical Astronomy in Copernicus' 'De Revolutionibus'* (New York: Springer-Verlag, 1984); Noel M. Swerdlow, "The Derivation and First Draft of Copernicus's Planetary Theory: A Translation of the Commentariolus with Commentary," *Proceedings of the American Philosophical Society* 117, no. 6 (December 1973): 423-512; George Saliba, "Theory and Observation in Islamic Astronomy: The Work of Ibn al-Shāṭir of Damascus," *Journal for the History of Astronomy* 18, no. 1 (February 1987): 35-43; George Saliba, *Islamic Science and the Making of the European Renaissance* (Cambridge, MA: MIT Press, 2007); F. Jamil Ragep, "Copernicus and His Islamic Predecessors: Some Historical Remarks," *History of Science* 45, no. 1 (March 2007): 65-81; F. Jamil Ragep, "Ibn al-Shāṭir and Copernicus: The Uppsala Notes Revisited," *Journal for the History of Astronomy* 47, no. 4 (December 2016): 395-415.

29 Morrison, "A scholarly intermediary," 34-38. Morrison, *Merchants of Knowledge*, 179-183.

30 Morrison, "A scholarly intermediary," 34-38; Morrison, *Merchants of Knowledge*, 23-24.

in Istanbul, where he gained access to the court of Sultan Bayezid II (r. 1481-1512)—a proximity that was not uncommon for Jewish scholars and physicians.³¹ This is further corroborated by archival evidence, such as Hebrew marginalia and translations of Islamic astronomical works into Hebrew, which indicates that Jews in the Ottoman Empire were granted access to important texts of Islamic astronomy.³² Not only does Morrison notice the influence of Geleano/Jālīnūs on Copernicus, but also observes that the former may have transferred al-Ṭusi's couple and the homocentric (where the spheres of the planets are centered on a fixed center, the earth) model to two Paduan astronomers, Giovanni Battista Amico (d. 1538) and Girolamo Fracastoro (d. 1553).³³

In conclusion, Morrison's *Merchants of Knowledge* stands as a significant contribution to the history of science, especially to the study of intellectual exchange between Europe and the Ottoman Empire and to Jewish Studies, and deserves, as a result, a place on the reading lists of university programs in these fields. By highlighting the role of Jewish mediators—the merchants of knowledge—Morrison presents a persuasive narrative that uncovers a missing link in the multidirectional chain of transmission between the Islamic world and Renaissance Europe. When I use the indefinite article “a” to qualify “missing link,” it is deliberate, because I believe that there are several links yet to be identified. Among the other links are the modes through which both objects and people, such as texts and mediators, moved within the spaces of human interaction and intellectual exchange. For instance, it is not a coincidence that the highly probable transmission of ibn al-Shāṭir's ideas via Geleano/Jālīnūs to Padua, and subsequently to Copernicus, occurred during the height of the maritime republic of Venice. A comparable phenomenon can be observed in the seventeenth century, when several Latin works reached the Ottoman Empire via the routes of another maritime republic, the Dutch Republic—another transmission pathway I identified in my research. That being said, Morrison's work remains a valuable addition to the bibliography of the history of intellectual exchange, offering compelling answers to the questions of *where*, *how*, and *with whom*. Needless to say, this approach rebalances our historiography of science toward a more inclusive and interconnected narrative.

31 Morrison, “A scholarly intermediary,” 36-38; Morrison, *Merchants of Knowledge*, 81-83; 184-185.

32 Morrison, “A scholarly intermediary,” 39; Morrison, *Merchants of Knowledge*, 172-179.

33 Morrison, “A scholarly intermediary,” 35; Morrison, *Merchants of Knowledge*, 161.

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