The Ottoman courtly context in the “long sixteenth century” (1450 to 1640), as Fernand Braudel has called it, is an ideal but neglected historical laboratory for examining the use of occult lore for purposes predictive, protective, and entertaining. A sizeable yet sorely understudied amount of archival and material sources testifies to the fact that several sixteenth-century Ottoman sultans utilized an impressive array of occult arts in furtherance of their royal aims. For instance, a number of astrologers and alchemists worked for Bâyezîd II (r. 1481–1512), whose keen interest in and cultivation of these sciences provoked the curiosity of his contemporaries.¹ His son Selîm I (r.

I would like to thank Elizabeth Sartell and Shandra Lamaute for giving me the opportunity to present an earlier version of this paper at the “Characterizing Astrology” conference at the University of Chicago, May 2015. Gratitude is also owed to Cornell H. Fleischer, Mohamad Ballan, and other conference participants for their insightful comments and questions. Special thanks to Nükhet Varlık for notifying me of the treatise examined in this paper, and to Matthew Melvin-Koushki for his crucial touches to the final version of this study. Finally, I would like to thank the two anonymous reviewers for their careful and helpful suggestions. Needless to say, all shortcomings, errors, and omissions are my responsibility.

Practicing Astral Magic in Sixteenth-Century Ottoman Istanbul (1512–1520) was attentive to the lettrist analyses of certain quranic verses that several distinguished scholars, including Ibn Kemāl (d. 1534), the major protagonist of this article, produced to legitimate Ottoman military campaigns against rival Muslim polities, especially the Safavids and Mamluks. During especially the first half of the reign of Süleyman (r. 1520–1566) the science of geomancy (‘ilm-i reml) enjoyed particular esteem, due in the first place to the close proximity of Haydar the geomancer (remma) to the sultan. Süleyman’s grandson Murād III (r. 1574–1595) had a marked penchant for oneiromancy, as it was part of his daily routine to send his dreams to his Sufi master for interpretation.

While the individual proclivities of different sultans played a decisive role as to which particular practice would receive more royal favor than others, several fields of expertise enjoyed consistent demand. Bibliomancy, for example, was a natural component of courtly parties and scholarly gatherings where specific books were opened on a random page and relevant passages or verses were used for divination. A marginal note in a surviving copy of a

---


5. See: Jan Schmidt, “Hâfiz and other Persian Authors in Ottoman Bibliomancy: The Extraordinary Case of Kefevî Hüseyın Efendî’s Râznâme” (Late Sixteenth Cen-
sixteenth-century biographical dictionary of poets informs us, for instance, that a number of individuals in the immediate circles of Bāyezīd II, Selīm I, and Suleymān were in the habit of treating the stanzas of Şeyhī (d. after 1429), an influential fifteenth-century Ottoman poet, as a divinatory text, prognosticating on their basis the possible outcomes of a military campaign or the fight for the throne among contending princes. More generally, the manuscript record suggests that construction of comprehensive prognosticons (cifr-i cãmi) was routine; indeed, ʿAbd al-Rahmān al-Bistāmi’s (d. 1454) Miftāḥ al-Jafr al-Jamīʿ, a seminal lettrist work, functioned as Ur-text for Ottoman imperialism as such. The crafting of talismanic shirts was yet another common service demanded regularly by members of the dynasty and high-ranking functionaries eager to benefit from their military and political applications.

Among the occult sciences, however, astrology secured the most systematic form of patronage in the early modern Ottoman context. Needless to say, the appeal to astrologers’ services was a standard feature of medieval and early modern court culture around the globe; the sixteenth-century Ottoman court is thus no exception. What is striking in the Ottoman case, however, is that from around the late fifteenth century onwards, astrological patronage was institutionalized through the creation in the Ottoman court bureaucracy of a permanent office for astrologers that remained functional up until the

---


dissolution of the empire in the early twentieth century.\textsuperscript{10} These monthly salaried court astrologers received their earnings in return for their specific services, such as the casting of annual horoscopes and designation of auspicious times for initiating military campaigns, constructing imperial building, or even manufacturing talismanic shirts, all of which endeavors served obvious political, ideological, and military purposes.

Despite this rich textual and material evidence for the practice of astrology and other divinatory disciplines, the relevant literature in both European historiography and Islamic studies has largely neglected the occult learning and practice standard within and beyond the Ottoman court. The major reason for this curtailed representation of the Ottomans in these broader historiographical traditions is the inadequate exploration of the rich extant sources by modern Ottoman historians. To help ameliorate this lacuna, this paper introduces one of these many sources, a brief treatise on talismans and celestial practice standard within and beyond the Ottoman court. The major reason for this curtailed representation of the Ottomans in these broader historiography and Islamic studies has largely neglected the occult learning and technological advancement for the more accurate practice of celestial magic.

THE TEXT AND ITS CONTENTS

The text is known and catalogued in the available bio-bibliographical sources as simply a “Treatise on Talismans” (\textit{Risâle-i  ICommands}), but within the text itself the author does not provide a title or specify the identity of the sultan to whom he dedicated it.\textsuperscript{11} Only in the epilogue does he reveal his name as


\textsuperscript{11} The text has already been transcribed and published by Sayın Dalkıran on the basis of the copy now housed as Süleymaniye Library Esad Efendi Ms. 3782 (folios 86r–89r). Unfortunately, due to the publisher’s lack of knowledge about technical terminology of the astral lore, several important passages were read inadequately. I will, thus, refer throughout the article to the original manuscript copies of the text. For more information on the copies of the text, see note 18. For Dalkıran’s study,
Ahmed b. Süleyman. Based on this piece of evidence, the text has been attributed to Ibn Kemal (also known as Kemal Paşaazade), one of the most prestigious scholars and prolific writers in the early modern Ottoman intellectual setting, whose proper name was Şemseddin Ahmed b. Süleyman.

Throughout his career Ibn Kemal held various teaching and administrative posts and composed over two hundred works in a wide range of disciplines, from Arabic grammar and theology to jurisprudence and poetry. He began his career as a cavalryman, but after becoming aware of the veneration shown by the prominent statesmen and military officials to even the minor members of the scholarly establishment (şulemä) he decided to change his career path to become a scholar (şālim). Upon completing his formal education in the late 1490s, he received his first appointment as an instructor to a madrasa in Edirne, which was to be followed by ensuing offices in higher ranking educational institutes of Istanbul, thanks to his good rapport with key scholar-bureaucrats of the time, including Mii’eyedzade ‘Abdurrahmän (d. 1516). Ibn Kemal’s teaching and administrative career reached its apex in 1526 when he was assigned the post of şeyhülislam (lit. religious leader of Islam, in practice to the chief jurist of Istanbul), which he occupied until his death in 1534.

During his four-decade service as a learned individual, Ibn Kemal was an integral part of the intellectual entourage around Bâyezîd II, Selim I, and Süleyman, each of whom personally commissioned him to produce works in different genres for different dynastic needs. Bâyezîd II, for instance, asked him to compose in Turkish a comprehensive history of the Ottoman dynasty. Ibn Kemal kept working on his history during the reign of Süleyman, as he completed in the 1520s the tenth and the last volume, which was on the reign of Süleyman, the tenth Ottoman sultan.

14. As the chief military judge of Rumelia, Mi’eeyedzade was responsible for regulating the appointments in the scholarly hierarchy (for both instructorships and judgeships) in the core provinces of the empire. For the rise of indigenous Ottoman “scholar-bureaucrats” in the “long sixteen century,” see: Abdurrahman Atçıl, Scholars and Sultans in the Early Modern Ottoman Empire (Cambridge: Cambridge University Press, 2016).
15. It must be around 1503 that Ibn Kemal was recommended to Bâyezîd II by Mi’eyedzade ‘Abdurrahmän to compose in Turkish the history of the Ottoman dynasty. Ibn Kemal kept working on his history during the reign of Süleyman, as he completed in the 1520s the tenth and the last volume, which was on the reign of Süleyman, the tenth Ottoman sultan.
manual on sexual medicine. By the time of Süleyman and during especially his tenure as the şeyhülislâm, Ibn Kemâl religiously defined and rationalized, through his fatwas and short theological treatises, certain imperial policies such as the war against the Shi’i Safavids or the prosecution of recalcitrant preachers.

As is evident from even such a brief description of his life and oeuvre, Ibn Kemâl functioned throughout his career as both a traditional scholar, who invested much of his intellectual capital in learning, teaching, and writing in essentially approved sciences in madrasas, and as a polymath courtier, who was ready to meet his patrons’ different needs from broader fields of expertise. Given his wide fame in modern historiography as an eminent religious scholar, one would hardly expect Ibn Kemâl to have written a treatise on talismans and celestial magic. And indeed, there is reason to question the authenticity of this text’s authorship by him, as the oldest surviving copy with an identifiable colophon dates only to December 1596, more than six decades after his death. Nevertheless, all modern studies that aim to locate the authentic works of Ibn Kemâl establish this particular treatise as one of his original compositions. More importantly, the majority of the extant copies of the treatise coming to us from the late sixteenth and seventeenth centuries bear in their titles attestation to Ibn Kemâl’s authorship, and are bound along with some of his other writings. Last but not least, based on internal evidence gleaned from this particular text as well as Ibn Kemâl’s other writings,

16. As far as the extant copy written by Ibn Kemâl is concerned, he completed the translation of the text, Terceme-i Rujû’ al-shaykh ilâ şûbâh fî al-quwûla ‘alâ al-hâr (The Old Man’s Return to his Youth in Sexual Prowess), in the year 1519. See: Sûleymaniye Library Hamidiye Ms. 1012.


18. RT, Sûleymaniye Library Esad Efendi Ms. 3782, 89r.


20. This particular treatise seems to have survived in at least six surviving copies. Five of them are now located in Turkey and one in Saudi Arabia, and I have had access to three of them. In addition to the Esad Efendi Ms. 3872 already used by
and on circumstantial evidence with regard to the intellectual context of the late fifteenth and early sixteenth-century Ottoman world as described above, in which Ibn Kemal was a key player, such an ascription to Ibn Kemal should not be surprising.

It is simply due to the established conventions in modern Islamic and Ottoman studies that many scholars find it difficult to imagine that a prominent scholar of religious sciences of the caliber of Ibn Kemal could have written such a work on talismans. Contrary to the received wisdom in modern scholarship, which often facilely and quite ahistorically assumes that the traditional *'ulamâ* from different parts and periods of Islamic history categorically rejected astrology and other divinatory practices, there is growing evidence, especially from the post-thirteenth-century Turko-Persian cultural zone, that different forms of occult practice penetrated into the social and intellectual world of so-called *sharia*-minded scholars, especially under the aegis of the court.  

It is this particular historical and intellectual context in which this short treatise attributed to Ibn Kemal should be situated.

The text opens, after the standard invocation of God and brief doxology in praise of the Prophet Muhammad, with a passage informing us that the author composed it upon the sultan’s request to learn more about the principles of the science of talismans, its different types and benefits, and its specific use to prevent the bubonic plague (*tâ’un*), one of the most vexing problems of life in the sixteenth-century Ottoman landscape.  

While bubonic plague would be situated.
was a perennial problem in earlier phases of Ottoman history, the immediate territorial expansion of the empire after 1517 on several fronts, the concomitant population growth, and rapid urban transformation in various cities brought new and diversified paths of contamination. The territories governed by the Ottomans in the sixteenth century witnessed numerous waves of plague, and one of the most severe epidemics broke out in between 1520 and 1529, during Ibn Kemal’s tenure in the capital. It is relevant in this context that Ibn Kemal is also credited with the composition in Arabic of a particular plague treatise, known generally as *Râḥat al--carousel (“Souls’ Comfort”),* in which he prescribes, *inter alia,* spiritual and occult methods, including the use of amulets and magic squares inscribed with prayers and/or other special formulae.

Unlike this plague treatise that offers detailed prescriptions, the treatise on talismans does not include any diagrams or symbols, letters, prayers and recipes for suffumigations, or similar ingredients one would normally expect to find in a work on talismans. The book stands rather as a sort of research proposal that the author conceptualized and presented the sultan before embarking on writing a more elaborate version upon securing his patronage. It is organized into one general introduction, three individual chapters, and a brief epilogue, and each chapter is further divided into three subsections. Throughout the text the author often mentions only the general theoretical


24. Ibid., 164–71.

25. Ibid., 233. This plague treatise has survived in over forty copies, the oldest of which seems to have come down to us from the year 1560–1. Unfortunately the date of its original composition is yet to be ascertained. See: “Kemalpaşaoglu’nun Eserleri II,” *Sarıkıyat Mecmuası* 7 (1972), 133–4. Birsen Bulmuş also notes that some of the other renowned sixteenth-century scholars and literati, such as Idris Bidlisi (d. 1520) or Tashkoprizade (d. 1561), allow in their own plague treatises for this sort of magical prescription. See: Birsen Bulmuş, *Plague, Quarantines, and Geopolitics in the Ottoman Empire* (Edinburgh: Edinburgh University Press, 2012), esp. 68–75.

underpinnings of talisman making without suggesting specified treatments in many cases. Whenever he does provide anecdotal exempla as to the successful use of talismans, he often stops abruptly and refers the reader to his other works, such as the “Talismanic Treasury” (Kenz-i ʿılsım, or as titled in some copies Kenz-i mutalsam) and the “Treasures of Desires and Signs of Curiosities” (Kımızı’l-metâlib ve numızı’l-şarâ’ib). Unfortunately none of these titles have been listed in modern bio-bibliographic works, nor in the encyclopedic compendia from Ottoman times, including Kâtip Çelebi’s (d. 1657, also known as Ḥājī Khalīfah) Kašf al-ẓınn “an asâmī l-kutub wa-l-funun (“The Removal of Doubts from the Names of Books and the Arts”) and Tâshkoprızâde’s (d. 1561) Miṣfâh al-sâ’âdah wa-miṣbâh al-siyādah fi muawûtât al-ʿulûm (“The Key to Happiness and the Light of Command on the Subjects of the Sciences”).

In the general introduction, the author briefly goes over the nuances between different magical practices that cause certain effects in the terrestrial realm, though only in accordance with the eternal will of God (irâdetullâh). Although he does not engage here in a sophisticated discussion of the Aristotelian classification of sciences, his treatment well resonates with the categories established in the medieval Islamicate taxonomies of knowledge. According to the author, if the terrestrial influences occur merely through mental powers of the practitioner, it is called magic (siḥr). If there is aid drawn from other terrestrial elements and natural substances, then it is grouped into niţrencât and Ḥavâs (magical objects and occult properties). If the aid derives solely from invoking celestial objects and spirits, it is called invocations of the (spirits of the) stars (da’vet-i kevâkib). The science of talismans (ʿilm-i ʿılsım),

27. R.T., 42v, 45v.
According to the author, aims to link celestial forces with terrestrial ones in order to produce protective efficacy. As he explicates in his treatment here, by celestial forces he means heavenly influences (ażâr-ı kevâkîh), [the determination of] astrologically auspicious moments (iḥtiyârât-ı țavâlî), and planetary aspects (ittiṣâlât-ı felekiyye), whereas by terrestrial powers he refers to the sublunar influences proper to the world of generation and corruption. All in all, the author simply adopts here the general hermetic axiom, “as above so below,” presupposing the necessary interdependence of celestial and terrestrial realms. Yet his strong emphasis on God’s eternal will and His being the willfully choosing one (fâ’il-i muhtât), a descriptor he repeats in the text on several other occasions, serves to create a pietistic framework and deter possible objections stemming from Islamic theological debates on God’s omnipotence.

In the first chapter, the author treats of the influences affecting the sublunar world by means of both celestial and terrestrial forces. He devotes the first section to terrestrial forces, citing as example the magnet’s attraction of iron, or the Yâda stone, well known to nomadic Turkic tribes, which summons rain with the agency and permission of God. After giving additional examples as to terrestrial influences known from Egypt and Iranian lands, he moves to the second section where he outlines the extent of celestial influences upon the sublunar world. Here the author again posits a pietistic ground by affirming that it is God alone who endowed each and every celestial object with separate qualities, and that human beings’ limited mental capabilities are unable to fully comprehend their underlying mechanisms. He implicitly criticizes those who deny astral causality, because for him, by reason of external proofs (delâ’il ve berâhîn) and experiential knowledge (tecrübe ve intîlâhîn), it is unreasonable to refute the influence of the heavens. He first cites as example the star cluster Pleiades (Süreyyâ), which has a detrimental impact on animals and human beings. He then touches upon the similarly destructive effects of the Canopus (Şüheylî), which he says is not seen in his own land (i.e. the lands of Râm, the core territory in the Balkans and Anatolia inhabited and governed by the Ottomans), but is visible to the people of Yemen and Hejaz. The author continues in this section with further examples pertaining to the impact of certain celestial objects and planetary configurations in different regions of the inhabited world. For instance, referring to Aristotle, he states that one’s faculty of discernment can be damaged when
one looks directly at the sun during an eclipse; likewise, when the Moon
conjuncts Venus in Taurus or Jupiter in Cancer, there is no benefit in taking
medicine, a negative influence repeatedly experienced by earlier genera-
tions.\textsuperscript{33} In a similar vein, when Saturn aspects Mercury in any of the earth
signs (i.e. Taurus, Virgo, Capricorn) while the two luminaries (Sun and
Moon) are cadent from the cardines (sākīt), such a celestial configuration
causes earthquakes—at the behest of Divine Providence.\textsuperscript{34}

Having briefly discussed terrestrial and celestial influences in the first two
sections, he devotes the last section of the first chapter to illustrating the
successful use of talismans in the pre-Islamic and Islamic eras through short
anecdotes extracted from historical narratives. Among his direct references to
such stories, the preponderance of works composed in Arabic, such as the
\textit{Maqāmāt} ("Sessions") of al-Harīf (d. 1122), \textit{Kitāb al-ishārāt ilā ma‘nīf al-
zīyārat" ("Guide to Knowledge of Pilgrimage Places") of al-Harawi (d. 1215),
\textit{Wafaya‘t al-‘ayn} ("Obituaries of the Eminent") of Ibn Khallikān (d. 1282),
and the chronicles of Ibn al-Aṭhr (d. 1233) and Ibn Kathīr (d. 1373) testifies
to the author’s mastery of Arabic letters in addition to Ottoman Turkish,
which he demonstrates throughout the text by means of his ornate rhymed
prose and occasional sampling of poetry from the works of prominent late-
fifteenth-century Ottoman poets.\textsuperscript{35} This level of linguistic expertise in Arabic
and refined Ottoman Turkish required the author’s completion of a formal
(madrasa) training in the language of scripture and his acquaintance with the
literary fashions of urban Ottoman elites. In that regard, the high profile of
Ibn Kemāl as a man of learning and literary taste renders him an ideal, if not
the only, candidate for the text’s authorship.

In the second chapter of the treatise the author delves into a more detailed
astrological discussion to explicate the knowledge and know-how necessary
for designing talismans. As Persis Berlekamp has succinctly noted, astrology
formed the theoretical framework of talisman making, for the efficacy of
talismanic images/motifs depended theoretically on the extent of the transfer
of stellar powers into sublunary elements.\textsuperscript{36} It is thus of utmost importance
that one choose the right planet(s) for the operation in question, calculate
the astrologically propitious moment when the relevant celestial forces are

\textsuperscript{33} Ibid., 41v–42r: "tekhr be-tekhr intihān olumnuştur."
\textsuperscript{34} Ibid., 42r.
\textsuperscript{35} At least two different times he quotes the verses of Necatī Beg (d. 1509).
\textsuperscript{36} Persis Berlekamp, \textit{Wonder, Image, and Cosmos in Medieval Islam} (New Haven;
London: Yale University Press, 2011), see especially her fourth chapter (119–49)
entitled “Talismanic Images: Astrological Composites and Efficacious Symbioses.”
dominant, and use natural substances that essentially correspond with the qualities of said planets.

Although Ibn Kemāl devotes his second chapter to a detailed astrological discussion, he starts his discussion by drawing a parallel between the science of talismans and the science of medicine. For him, just as medicine provides remedy to the human body, talismans are used to cure the “body of the earth.” He then continues with some of the requirements a qualified practitioner of talismans must meet, the foremost of which is excelling in the science of the stars (ilm-i niʿām), a term that naturally included astrology. He explicitly states here that the theoretical framework of the science of talismans relies solely upon the science of the stars. He also briefly refers, for the first time in the treatise, to the importance of the use of (astronomical) instruments for astrological precision, only possible through the financial support of sultans and rulers.

In the first section of the second chapter Ibn Kemāl provides a sophisticated discussion on the significance of determining with precision the astrologically auspicious moment (i.e. the Ascendant, Ar. tālī) needed to cast efficacious talismans. As the author advances, the theosized sages (ḥākemāʿ-i ilāhiyyān) who had first invented talismans as a science drew on the nativities of individuals, as they came to realize that things befall on earth in consonance with the celestial configuration at the time of one’s birth. However, as the author reminds his readers once again, this configuration and the ensuing effect in the terrestrial realm take place as the necessary consequence of God’s eternal divine will. In line with his discussion of nativities, the author illustrates the customs of the sages in question, whom he leaves unidentified. Accordingly, whenever a child was born, they would determine the newborn’s Ascendant. If the moment of birth implied misfortune and detrimental state, they would calculate from the near future another hour that would be

37. RT, 46r: “tālī beden-i ‘ālemeye ‘ilāc itmekdir.”
38. Ibid.: “ilm-i tālīn mumān ilm-i niʿāmından ibāretdir.”
39. Ibid.
40. The Ascendant (tālī) is the point of the ecliptic rising on the eastern horizon at the given moment. It is considered the single most important astrological parameter calculated for any branch of astrological activity. See: David King and Toufic Fahd, “al-Ṭālī,” Encyclopedia of Islam, Second Edition, online version. The determination of the tālī was so crucial in astrological predictions that in vernacular Turkish the word gradually transformed in the fifteenth and sixteenth centuries into tālīh, which stands for fortune and luck.
41. RT, 46v.
42. Ibid.
auspicious. Upon designating the new Ascendant and determining the ruler planet, they would mold an *imago* of the baby (*ādem ǧureṯi*) with the metal corresponding to that planet. As they took the *imago* to the newborn, the auspicious celestial influences derived from the *imago*’s Ascendant were virtually transferred to the infant. For the author, the celestial configuration at the time of birth, which is determined only by God’s orders and will, is the single most important criteria for the efficacy of talismans; both suffumigations and invocations to the spirits of the planets pale in importance next to electing an auspicious hour.\(^43\)

In line with his overall astrological leanings, he points out in the second section of the second chapter the proper astrological conditions recommended by the ancient sages and philosophers for the manufacture of talismans, and particularly those for repelling bubonic plague. As in previous parts of the text he does not specify here his sources, but one ideal astrological condition he suggests is Jupiter’s being in either its exaltation (i.e., the fifteenth degree of Cancer) or either Sagittarius or Pisces. Another proper astrological condition for casting a talisman to help ward off the plague is the Sun’s being in its exaltation (i.e., the eighteenth degree of Aries) while Jupiter is in Sagittarius.\(^44\) In that case, the Ascendant will be in Aries and the Medium Coeli (i.e., the tenth astrological house) in Sagittarius, which concerns climatic conditions and urban matters.\(^45\)

In the third and the last section of the second chapter he details how to manufacture talismans against bubonic plague. As he maintains, the essential metals to make efficacious talismans to this end are tin and copper, for these two metals correspond respectively to Jupiter and Venus, the two planets that govern bubonic plague. Moreover, the talismans sculpted from these metals should be as tall as human beings and the practitioners must know what to inscribe on them, including names of (planetary) spirits (*esma’-i eravl*) and other formulae.\(^46\) The author also elaborates here on his earlier reference to the importance of the use of astronomical instruments for calculating the exact mathematical degree of the Ascendant. As he asserts, imprecise calculations of celestial degrees inevitably impair the efficacy of the manufactured talisman. He therefore recommends the use of sizeable astrolabes and quadrants featuring plates with detailed markings in terms of degrees and minutes.\(^47\) He states, as many other proficient practitioners of astral sciences of

\(^{43}\) Ibid.

\(^{44}\) Within the text, the author does not specify these degrees.

\(^{45}\) RT, 48r.

\(^{46}\) Ibid., 49v.

\(^{47}\) In the history of medieval astronomical observation in the Islamicate context,
the time would agree, that the influences produced by a specific celestial degree might be completely different than those arising in another degree. Therefore, the use of such advanced instruments can help practitioners detect the desired celestial configuration with greater precision. These instruments, however, are not always procurable by practitioners; only by means of the patronage of the ruler of the age can experts realize their celestial pursuits.

In the third and final chapter, he treats of issues other than celestial causality. Here the author discusses in which parts of the city the talismans should be situated in order to obtain the desired consequences, the reasons and preconditions of the disease’s transmission among the population, and the inverse correlation between the occurrence of earthquakes and bubonic plague. As to this last point, he recounts a story from the Byzantine past of the Ottoman capital. One of the Byzantine rulers, whom the author does not specify, was vexed by the frequent earthquakes that killed thousands of people at a time. He then gathered competent natural philosophers and asked them whether there is any means to prevent earthquakes. These experts suggested that he hollow out the city and construct cellars, as this would confine to the underground the vapors and fumes that cause earthquakes. However, they also warned the ruler that such a measure might result in the occurrence of the bubonic plague. Comparing the destructive effects of earthquakes with those of bubonic plague, the Byzantine ruler decided to follow the experts’

the precision of observational data was usually evaluated on the basis of the size of the astronomical instruments. The contention of the experts was such that the bigger the instruments, the more accurate the observations could be. See: Aydın Sayılı, *The Observatory in Islam and its Place in the General History of the Observatory* (Ankara: TTK, 1960), passim.

48. As it will be discussed later in this paper, Ibn Kemâl’s master and benefactor Muʿeyyedzâde ʿAbdurrahmân also discusses in his *Kalâm* treatise that every celestial degree matters in astrological predictions. For the theoretical explanation of the astrological significance of each and every celestial degree, another mid-sixteenth-century astrologer and natural philosopher, Riyâzî (d. later than 1550), refers specifically to the teachings of Chaldean astrologers/natural philosophers, particularly the name Tangalūshâ. Fakhr al-Dîn Râzî’s book on celestial magic, *al-Sîr al-maktûm*, was also informed by the teachings of Tangalūshâ. For the detailed treatment of the cases of Muʿeyyedzâde ʿAbdurrahmân and Riyâzî, see my unpublished dissertation. For Tangalūshâ, see: *Tanklîsha, az muʿallî-f-i nâshindâkhthâl*, ed. Raḥîm Rîzâ Zâdah Malik (Tehran: Mîrâz-i Maktûb, 1384/2005); Živa Vesel, “Teucros in Nizami’s Haft Paykar,” in *A Key to the Treasure of the Hakim: Artistic and Humanistic Aspects of Nizami Ganjavi’s Khamsa*, ed. Johann-Christoph Bürgel & Christine van Ruymbeke (Leiden: University Press, 2011), 245–52.

49. RT, 50v: “ṣâḥibqârin-i zamâni ‘inâyeti.”
recommendation, judging that unlike the earthquake, the bubonic plague is medically curable and does not cause the sudden death of thousands of victims.\footnote{50. Ibid., 54r.}

Before closing his treatise, the author revisits his earlier discussion on the significance of the science of the stars in crafting talismans, and inserts a short autobiographical passage telling how he developed an interest in astral lore. According to his narration, since his early years he has been preoccupied with learning many different branches of knowledge, and recently started studying the intricacies of natural-philosophical investigation, specifically the science of the stars (‘ilm-i nücum) and theoretical astronomy (‘ilm-i hay’a).\footnote{51. Despite the established conviction in the current historiography of science in the Islamicate context which assumed that from the tenth century onwards the category of ‘ilm al-nüüm gradually disappeared and the boundaries between astrology (‘ilm ahkām al-nüüm) and astronomy (‘ilm al-hay’a) strictly consolidated, the production of astral knowledge in the post-thirteenth-century Turko-Persian context clearly demonstrates that the term ‘ilm al-nüüm was still in use to allude to the practical astrological pursuits. For the relevant discussion on terminology, see: George Saliba, “Islamic Astronomy in Context: Attacks on Astrology and the Rise of the Hay’a Tradition,” Bulletin of the Royal Institute of Inter-Faith Studies 4, no. 1 (2002): 25–46; F. Jamil Ragep, “Astronomy,” Encyclopedia of Islam, Third Edition, online version; Matthew Melvin-Koushki, “Powers of One: The Mathematicalization of the Occult Sciences in the High Persianate Tradition,” Intellectual History of the Islamicate World 5/1 (2017): 127–99.} From there he proceeded to the science of talismans, which, as he avers, is a branch of natural philosophy. He studied its general theoretical principles along with its practical applications; however, he was unable to complete the necessary operations due to a lack of sufficient practical experience as well as technical and financial assistance.\footnote{52. R.T, 55r.} He adds that particularly with respect to warding off bubonic plague, he carefully examined the prescriptions and auspicious celestial configurations offered by previous philosophers, whom he does not specifically name. If the sultan could help him take the necessary practical measures, the author suggests, this would enable him to achieve the desired outcomes in short order.

Pertaining to his request for the royal support, he raises another important issue related to cutting-edge research and technology as to celestial observation. There is, for the author, an urgent need for undertaking a new observational program and preparing a revised handbook of astronomical tables (zīj), because all the available zījes, including even the Zīj-i Ulugh Beg (“Ulugh Beg Star Tables”), the most revered and widely used one among Ottoman
astrologers from the early sixteenth century onwards, fail to meet practitioners’ needs of precision. As he emphasizes, temporal calculations of celestial phenomena made on the basis of these tables often contradict personally observed values, and those individuals ignorant of the defects in the tables often blame astrologers for their miscalculations. Therefore, a new systematic observational program should be initiated in order to correct the existing data and parameters in the circulating zījes. Undertaking such a costly endeavor, however, is not possible without the (financial) support of the reigning sultan. If the sultan shows his benevolence in backing such an undertaking, then even the most worthless and useless natural philosopher of the time will soon become a new Aristotle or Plato.  

53. THE ROLE OF OBSERVATIONAL AND EXPERIENTIAL KNOWLEDGE

The epilogue wherein the author makes his request for royal support and cites the urgent need to produce new astronomical tables is striking for a number of reasons. First of all, it provides additional precious evidence as to how the celestial data presented in astronomical tables were put in use for astrological and divinatory purposes. Secondly and relatedly, the epilogue also suggests the considerable extent to which astral experts relied on and jockeyed for royal patronage for advancing current scientific knowledge in astronomical observation and mathematical computation. Finally, the epilogue helps set a terminus ante quem for the date of the text’s composition and elaborate the discussion on the authenticity of its authorship by Ibn Kemâl.

Despite the continuing reluctance of modern scholarship to emphasize—or even acknowledge—the astrological and divinatory uses of the zīj genre, these texts were manifestly astrologers’ indispensable tools for making the necessary planetary calculations.  

źīj literature is often candid as to its astrological applications. For instance, in the Zīj-i Ilkhānī (the Ilkhanid Tables produced in the mid-thirteenth century at the Maragha observatory), Naṣīr al-Dīn Tūsī (d. 1274) explicitly writes that if one wants to have foreknowledge about earthly matters, such as the security of the country, warfare and peace among rulers, or the fortunes of newborns, it is crucial to run systematic observations and prepare tables that allow one to calculate, for any given moment and latitude, the exact positions of celestial objects.55

According to Edward S. Kennedy and some of his colleagues and students, there are over two hundred surviving źījes produced in the first millennium of the Islamicate civilization. Nonetheless not all these źījes were composed on the basis of a systematic observational program, and oftentimes the data and parameters on planetary motions provided by each are mutually contradictory. These frequent inconsistencies between the calculated times of certain celestial phenomena such as eclipses and their personally observed values thus prompted new generations of astral experts to undertake fresh and ideally longer observational programs.56

The history of the construction and destruction of observatories in the post-thirteenth-century Turko-Persian politico-cultural context provides ample evidence for the astrological purposes of systematic observational enterprises that were made possible by courtly patronage. The heightened interest in astronomical observations (raṣad), many of which had to be interrupted due to political turmoil and/or lack of consistent financial support, stemmed primarily from the desire to improve the quality of the available planetary data utilized by practicing astrologers. At the end of each systematic observation program a new źīj with revised figures was produced. For example, the observational activities at the Samarqand observatory around the mid-fifteenth century, whose goal was the revision of the data and parameters

źīj literature, King and Samso say for instance “there is precious little historical evidence how these works were used in practice.”

55. Zīj-i Ilkhānī, Bibliotheca Medicea-Laurenziana, Ms. Or. 24, 3v.

56. All heavenly experts in the medieval Islamic realm understood, correctly, that in order to obtain more accurate results from observations, one should conduct at least thirty years of systematic observation, because it takes around thirty years for Saturn, the outermost planet in traditional cosmology, to complete its rotation through the ecliptic. See: Sayılı, The Observatory in Islam, passim. For the grievances in the post-thirteenth-century Turko-Persian context due to the incompatibility of calculated and observed celestial values, also see: Mohammad Mozaffari, “Wābkana’ī’s Prediction and Calculations of the Annual Solar Eclipse of 30 January 1283,” Historia Mathematica 40 (2013): 235–61.
of tables in circulation, ultimately yielded the Zīj-i Ulugh Beg (“Ulugh Beg Star Tables,” aka Zīj-i Jadīd-i Sultānī, “New Sultanic Star Tables”), which eventually became the main reference work for Ottoman and other astrologers from the sixteenth century onwards.⁵⁷

However, the Ulugh Beg tables were also not exempt from criticisms from those Ottoman astral experts who used them due to the discrepancies between observed and calculated celestial phenomena. While the earliest example of such discontent dates back to the early 1480s, it was only in the mid-1570s that an Ottoman astral expert (i.e., Taqī al-Dīn [d. 1585]) finally convinced a patron sultan (i.e., Murād III) to establish an observatory in Istanbul and run a new observational program (rașad-i cedīd).⁵⁸ Although the observatory was soon demolished after the şeyhülislām of the time issued a fatwa proclaiming the inauspiciousness of the observatory and the necessity of its destruction, Taqī al-Dīn and his collaborators persevered in their project of preparing revised tables based upon their own limited observations.⁵⁹ In this context, the epilogue section in the talismanic treatise, which touches precisely on the need for a new observational program and astronomical tables, not only epitomizes the dissatisfaction of contemporary Ottoman astral experts with the authoritative astronomical sources, but also unequivocally sets the date of its composition before the 1570s.

⁵⁷. For the statistical examination of the zījes preferred by the Ottoman astrologers from the mid-fifteenth to the mid-seventeenth century, see Appendix C in my unpublished dissertation.

⁵⁸. In 1483, one of the Persian émigré astrologers at the court of Bāyēzīd II (r. 1481–1512) made solar observations in Istanbul to test the data provided by three popular zījes and reached a conclusion that the tables of his own master, Rukn al-Dīn Amlū (d. later than 1455) yielded more accurate results than both the Ulugh Beg and Ilkhanid Tables. See: Mortaza Somi and Mohammad Bagheri, “Risāla-i tashrīh. al-aʿla fī ṣayyid Munajjīm Ḥusayn,” Mīrāth-i ʿIlmī-yi İslām va İrān 2, no.1 (1392/2013): 181–205. Taqī al-Dīn also emphasized the need for revising tables (zīj) when he approached the sultan and expressed his demand to establish an observatory for conducting a systematic observational enterprise. See: Aydın Sayılı, “Alaeddin Mansur’un İstanbul Rasathanesi Hakkındaki Şirleri,” Belleten 20, no. 79 (1956): 411–84; Remzi Demir, ‘Takıyuddin’de matematik ve astronomi: Cerîdedîd’dürür ve haşdettû’l-fîkîr üzerine bir inceleme (Ankara: Atatürk Kültür Merkezi Başkanlığı, 2000).

⁵⁹. For the story of Taqī al-Dīn and the Istanbul observatory, see: Aydın Sayılı, The Observatory in Islam, esp. 289–305. For the inherent political contention that involved the decision process of its demolition, see: Baki Tezcan, “Some Thoughts on the Politics of Early Modern Ottoman Science,” in Beyond Dominant Paradigms in Ottoman and Middle Eastern/North African Studies: A Tribute to Rifā’at Abou-El-Haj, ed. Donald Quataert and Baki Tezcan (İstanbul: ISAM, 2010), 135–56.
Before elaborating on the question of the authorship of this text, it is worth noting that the discussion in the epilogue on the need for advanced observational data is somewhat related to the arguments proposed in earlier chapters as to the significance of experience (tecrübe in Ottoman Turkish, tajriba in Arabic) as an epistemological category. As noted above, in the first two chapters of the treatise the author puts considerable emphasis on the value of experiential knowledge and often reminds his readers that the patterns of celestial causality he discusses have been repeatedly tested (imtiḥān) and experienced. He even says, without providing a concrete example, that his own personal experiences during his limited lifespan have proven to him the reality of celestial influences.

As Tzvi Langermann has demonstrated in a recent study, the category of experience had a significant place in late medieval and early modern epistemological discussions, particularly in the fields of applied arts and sciences. In the case of astrology, astrologers often grounded the scientific basis of their forecasts in the accumulated recorded experiences of past masters. For example, in the rich corpus of Ottoman astrological materials, specifically in the annual almanac prognostications (sg. takvîm), the Ottoman astrologers often note that the accumulated reports of past experts pertaining to experienced celestial influences in the terrestrial realm endow them with the necessary practical information to communicate their astrological predictions.

Langermann also points out in the same article, drawing on earlier studies by George Saliba, Bernard R. Goldstein, and Abdelhamid I. Sabra, that while repeated experience (tajriba in Arabic) is central to the applied sciences, including astrology, it was considered to have no epistemological role in exact scientific pursuits as represented in the first place by astronomical theory and observation. According to Langermann and others, it is significant that epistemological categories other than tajriba, such as imtiḥān (test) or istikrâ (induction) are employed in optical and/or astronomical texts. Although it is true that the author of the present treatise on talismans does not use the

60. RT Süleymaniye Library Esad Efendi Ms. 3782, 86v–87r: “tekâr tekâr imtiḥân olnuṣdur; mîrâren tecrübe olnuṣdur.”
62. I should add that despite astrologers’ remarks on the value of “experience” in astrological practice, they also express their concerns about the epistemological constraints of their craft. This is discussed in more detail in the first chapter of my unpublished dissertation.
63. Langermann, 149.
64. Ibid., 150.
category of experience in his later discussion of the urgent need for a new observational program, his analytical treatment throughout the text assumes an organic connection between experiential and observational knowledge. It is self-evident to him that a) talismans are produced on the basis of prescriptions culled from past authorities’ experiences, and b) their efficacy is enhanced if the practitioner makes precise planetary calculations on the basis of state-of-the-art observational knowledge.

Ibn Kemal, Talismanist?

Was Ibn Kemal then our talismanist? We cannot be sure, as there is no extant copy of the treatise from his own lifetime. Yet, considering that all references quoted in the text are from sources in Arabic and Ottoman Turkish produced prior to the early sixteenth century and that there is an explicit request at the end of it to conduct a new systematic observation program, the likely date of its composition falls within the temporal range Ibn Kemal flourished. Needless to say, reference must be made to his other works as well as his immediate intellectual habitat for a more nuanced discussion on the likelihood of this text’s authorship by Ibn Kemal.

Despite a few earlier scholarly attempts in Turkish to portray the general contours of Ibn Kemal’s prolific and polymathic character, we still lack careful historical studies that scrutinize the formation and evolution of his intellectual outlook. Nevertheless, even a cursory examination of some of his works clearly reveals that unlike modern scholars Ibn Kemal considered it natural and unexceptional for a traditional ‘alim to engage in certain occult-scientific practices. In his aforementioned report to Selim I, for instance, he undertakes a lettrist interpretation of a particular quranic verse (Q 21:105), construing it as a good omen for the sultan’s campaign against the Mamluks: Selim’s epochal conquest of Egypt, he argues, is predicted in the Quran and hence inevitable. In the fourth book of his ten-volume history of the Ottoman dynasty, moreover, he narrates, in a highly positive manner, the story of the infamous serpent talismans in the hippodrome of Constantinople constructed by Constantine the Great. He says, further embellishing the narrative with verses of his own composition, that after Constantine erected the talismanic column, most of the snakes departed the city, and those few that remained became harmless.

passages replete with astrological imagery and metaphors, as well as anecdotes on different Ottoman statesmen taking counsel with astrologers. More significantly, his large fatwa corpus includes a ruling wherein Ibn Kemal explicitly declares there to be nothing wrong in using the Quran for bibliomancy. It is also worth noting that his fatwa collection does not include a single entry that condemns the mischief caused by astrologers or the blasphemy of magicians. Given the fact that denouncing astrologers and sorcerers was a standard theme in the fatwa compilations of earlier jurists like Ibn Taymiyya (d. 1328) and Ibn Qayyim al-Jawziyya (d. 1350) or later Ottoman şeyhülislams in the seventeenth and eighteenth centuries, the absence of a relevant entry in his corpus is highly indicative of Ibn Kemal’s overall pro-astrology stance.

Last but not least, in one of his shorter theological treatises where he treats of the knowledge of the five unknown entities (mugayyebat-ı hamse), including the time of the apocalypse or the fortunes of an unborn baby, Ibn Kemal manifest a similar attitude. He naturally disapproves of those who claim with certainty that they possess the knowledge of the unknown (gâyib), for such certitude is God’s alone. He adds, however, that since any attempt to grasp the knowledge of the unknown is conjectural (tahmûn), and as long as the individual admits that their episteme is based upon speculation (žanî), there is no need to declare them an unbeliever.

With respect to his immediate intellectual environment and scholarly peers, Mu’eyyedzade ‘Abdurrahman deserves special consideration. Ibn Kemal’s close relationship with him as his intellectual protegé started in the late 1490s and remained intact until the latter’s death in 1516. Mu’eyyedzade not only functioned as one of his teachers but also helped him advance swiftly in the scholarly hierarchy. It was Mu’eyyedzade, for instance, who convinced

---

70. Şamil Oçal, Kemal Paşazade’nin Felsefi ve Kelami Görüşleri, 333–35.
Bâyezîd II to assign to Ibn Kemâl the task of composing in Turkish the history of the Ottoman dynasty.\textsuperscript{71}

Despite his tremendous impact upon the Ottoman scholarly establishment in the first half of the sixteenth century, Mü’eyyedzâde has largely escaped the attention of modern scholars.\textsuperscript{72} It is beyond the confines of this article to construct the intellectual biography of Mü’eyyedzâde, but for our purposes here I will briefly highlight his penchant for astral science, including both its mathematical-astronomical subsets and astrological-prognosticative applications. His rich library, for example, housed almost all the key works in the Islamic astronomical, astrological, and astral-magical corpus. According to the catalogue prepared in the late 1510s, which records the surviving titles from his massive seven thousand volume collection, Mü’eyyedzâde possessed, among many other relevant items, more than fifteen copies of various zîjes, several copies of (pseudo-)Ptolemy’s \textit{Centiloquium}, unspecified treatises by Abû Ma’shar, Fakhr al-Dîn Râzî’s seminal compendium of celestial magic (\textit{al-Sirr al-maktûm}), at least one copy of Maslama al-Qurtubî’s \textit{Ghâyat al-hâkîm}, and several other anonymous works on different occult sciences including talismans (\textit{Risâla fi l-\textit{t}ilasmât}), lettrism, or magic squares.\textsuperscript{73}

Besides holding these and other relevant titles in his personal library, Mü’eyyedzâde also demonstrated in his own scholarly works his erudition in the astral sciences. For instance, in the theological treatise he dedicated to Bâyezîd II, he strives to refute some of the anti-astrology arguments that some earlier theologians raised as regards to the questions about God’s omnipotence or the standard twin problem. In his refutation Mü’eyyedzâde emphasizes that none of the astrological authorities ascribes unmediated power to celestial bodies. Quite to the contrary, they often accentuate the underlying divine control of the cosmic configuration. As he maintains, the way celestial bodies operate is a clear sign of God’s power and wisdom, and that denying the interdependence of celestial and terrestrial realms makes one an unrighteous person. With respect to the twin problem, which was often used in polemical literature to refute astrological principles, Mü’eyyedzâde says that

\textsuperscript{71} Şerafettin Turan, “Kemalpaşazade,” \textit{Türkiye Diyanet Vakfı İslam Ansiklopedisi}, v. 25, 238.

\textsuperscript{72} One recent important contribution is Judith Pfeiffer’s “Teaching the Learned: Jalâl al-Dîn al-Dawânî’s \textit{Ijâza} to Mu’ayyadzâda ŬAbd al-Râhîm Efendi and the Circulation of Knowledge Between Fârs and the Ottoman Empire at the Turn of the Sixteenth Century” published in \textit{The Heritage of Arabo-Islamic Learning. Studies Presented to Wadad Kadi}, ed. Maurice A. Pomerantz and Aram A. Shahin (Leiden: Brill, 2016), 284–322.

\textsuperscript{73} Topkapi Palace Museum Archives D. 9291/1–2.
what really matters in the astrological interpretation is not the time of birth but rather the time of conception. As all the authoritative sources including Ptolemy would agree, he says, the effects in the terrestrial realm can drastically change with even the slightest shift in celestial degrees.74

When we juxtapose the statements asserted in our treatise on talismans with Mū’eyyedzāde’s refutation of anti-astrology polemics, the close intellectual affinity in the way both treat the scope of celestial influences upon the terrestrial realm is unmistakable. Nevertheless, neither the passages from Ibn Kemāl’s other writings nor his master Mu’eyyedzade’s erudition in the astrological study of the heavens can decisively prove that the treatise in question was written by Ibn Kemāl. But what such circumstantial evidence portrays for certain is the existence of a dynamic intellectual milieu in the sixteenth-century Ottoman capital where it was deemed normal, if not always popular, for a traditional scholar to pursue occult knowledge and practice.

The true identity of the author of the treatise on talismans examined in this article aside, this short tract hints at the many rewarding perspectives the rich but hitherto unexplored corpus of late medieval and early modern Ottoman occult texts can provide. Due primarily to language constraints, it is Ottoman historians who must enter this uncharted territory. Yet such study will not only benefit Ottoman studies; broader Europeanist and Islamic historiographical traditions have much to learn from Ottoman occult experience.

74. Mū’eyyedzade, Risāla al-ḥavāshiʾ al-mawāqif, Süleymaniye Library Ayasofya Ms. 2283, 8r–10v.