

Ḥajī Zayn-i Aṭṭār's *Ikhtiyārāt-i badī'ī* and Its Contribution to the  
Ottoman Pharmacopeia Literature

Hacı Zeyn-i Attâr'ın *İhtiyârât-ı Bedî'î*'si ve Osmanlı Farmakope  
Literatürüne Katkısı

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**Abstract**

This study examines Ḥajī Zayn-i Aṭṭār's *Ikhtiyārāt-i badī'ī*, one of the leading manuscripts of 14<sup>th</sup>-century Persian pharmacopeial literature, tracing its journey in the Ottoman Empire and evaluating its impact. *Ikhtiyārāt-i badī'ī* represents a rich accumulation of knowledge in medieval Islamic pharmacology, bringing together the insights and experiences of the author's contemporaries and predecessors. Moreover, it influenced many subsequent texts in Persian pharmacopeial literature. It gained prominence in Timurid and Safavid Iran as well as Mughal India, becoming a key reference in the medical and pharmacological literature of these regions. Through trade and scholarly networks, the text reached Ottoman intellectual circles and, from the 16<sup>th</sup> century onward, became a frequently consulted source among Ottoman pharmacopeial and medical works. The similar level of interest in *Ikhtiyārāt* during the early modern period in Ottoman, Safavid, and Mughal territories demonstrates the circulation of scholarship between these regions and how they inherited and

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utilized common intellectual traditions. This study highlights the contributions of *Ikhtiyārāt* to Ottoman pharmacopeial literature, including its role in helping Ottoman scholars learn about the identification, preservation, and application of plant species and pharmacological minerals of Iran and Indian origin. The translation of *Ikhtiyārāt* into Ottoman Turkish by Muhammed Rızā is examined in comparison with similar translations of the period, exploring the reasons for its translation. Notably, the fact that this translation was undertaken in the 18<sup>th</sup> century, a time when scientific interest in Europe was gaining momentum, is one of the questions this study addresses.

**Keywords:** Ottoman pharmacopoeia, Persian pharmacology, scientific exchange, translation studies, Ottoman medicine, Zayn-i Attār, *Ikhtiyārāt-i badīʿī*, *müfredāt*.

### Öz

Bu çalışma, 14. yüzyıl Farsça farmakope (müfredât) literatürünün önde gelen eserlerinden biri olan Hacı Zeyn-i Attâr'ın *İhtiyârât-ı bedîʿî*'sini incelemekte, eserin Osmanlı İmparatorluğu'ndaki yolculuğunun izini sürmekte ve etkisini değerlendirmektedir. *İhtiyârât-ı bedîʿî*, yazarın çağdaşlarının ve selevlerinin görüş ve deneyimlerini bir araya getirerek Ortaçağ İslam farmakolojisinde zengin bir bilgi birikimini temsil etmektedir. Dahası, Farsça farmakope literatüründe sonraki birçok metni etkilemiştir. Timurlu ve Safevî İran'ının yanı sıra Babürlü Hindistan'ında da önem kazanmış ve bu bölgelerin tıp ve farmakoloji literatüründe önemli bir referans haline gelmiştir. Metin, ticari ve ilmi ağlar aracılığıyla Osmanlı entelektüel çevrelerine ulaşmış ve 16. yüzyıldan itibaren Osmanlı farmakope ve tıp eserleri arasında sıkça başvurulmuş bir kaynak haline gelmiştir. Erken modern dönemde Osmanlı, Safevî ve Babür topraklarında *İhtiyârât*'a gösterilen benzer ilgi, bu bölgeler arasındaki ilim dolaşımını ve ortak entelektüel gelenekleri nasıl miras aldıklarını ve kullandıklarını göstermektedir. Bu çalışma, Osmanlı âlimlerinin İran ve Hint kökenli bitki türlerinin ve farmakolojik minerallerin tanımlanması, korunması ve uygulanması hakkında bilgi edinmelerine yardımcı olma rolü de dâhil olmak üzere, *İhtiyârât*'ın Osmanlı farmakope literatürüne katkılarını vurgulamaktadır. Muhammed Rızâ'nın *İhtiyârât*'ı Osmanlı Türkçesine çevirisi, dönemin benzer çevirileriyle karşılaştırmalı olarak incelenmekte ve çevirinin nedenleri araştırılmaktadır. Bu çevirinin 18. yüzyılda, Avrupa'da bilimsel ilginin ivme kazandığı bir dönemde yapılmış olması, bu çalışmanın ele aldığı sorulardan biridir.

**Anahtar Kelimeler:** Osmanlı farmakopesi, Fars farmakolojisi, bilimsel etkileşim, çeviri çalışmaları, Osmanlı tıbbı, Zeyn-i Attâr, *İhtiyârât-ı Bedîʿî*, *müfredât*.

## Introduction

During the Mongol and Timurid periods, cities such as Tabriz, Shiraz, Herat, and Samarkand witnessed a surge in the production of works in astronomy, mathematics, and medicine. These works constituted a body of literature that Ottoman scholars either followed, read, or were at least aware of in some capacity. The pharmacological knowledge and compendia that were read and written in the Turkish-Islamic power centers like the Ottoman, Safavid, and Mughal empires were predominantly composed in Arabic and Persian, a tradition that dated back to the Islamic Middle Ages. Consequently, many scholars and authors in this field continued to draw upon earlier compendia by predecessors such as Ibn al-Bayṭār (d. 646/1248) and Yūsuf b. ʾİsmāʿīl al-Kutubī (d. 754/1353-54)<sup>1</sup>, utilizing a shared medical and pharmaceutical nomenclature that was heavily influenced by Arabic, Greek, and Persian terms, especially when it came to the names of remedies and medical terminology. However, the Ottomans distinguished themselves from their Eastern neighbors (particularly in the Safavids and Mughals) through their greater efforts in producing Turkish medical and pharmaceutical works and in translating previously written texts into Turkish.

During this period, the three empires, closely connected through literary and visual arts, shared an intellectual network that facilitated the circulation of knowledge from the Indian subcontinent to the lands of Rūm. A portion of the literate population proficient in Arabic and Persian sustained the exchange of knowledge and culture among the three empires, with Persian—at least as much as, if not more than Arabic—serving as a significant channel in facilitating this circulation. From the sixteenth century onward, as the Ottomans expanded eastward, Persian became essential for identifying medicinal substances among imported goods. This need fostered interest in Persian pharmacopoeia (mufradāt) literature. Among the prominent works in this literature, and the focus of this study, is *Ikhtiyārāt-i badīʿi* (*The Selections for Badīʿ*).

- 1 Taşköprizâde Ahmed Efendî (d. 968/1561), one of the most esteemed figures in the field of classification of sciences, identifies the ‘science of plant species’ (*ʿilm al-nawʿ al-nabāt*), which examines the uses of plants in nutrition and medicine, as a distinct scientific discipline. In this context, he emphasizes that the works of Ibn al-Bayṭār and Ibn al-Kutubī represent the most comprehensive and inclusive contributions to this field. See. Taşköprizâde Ahmed Efendî, *Saʿâdetüʾl-fâhira fî Siyâdetüʾl-âhira: İlmler Tasnifi*, transl. Sami Turan Erol, İstanbul Medeniyet Üniversitesi Yayınları, İstanbul 2016, p. 172.

Ḥajj Zayn-i Aṭṭār (d. 806/1403-04), the author of *Ikhtiyārāt-i badīʿī*, was a physician who lived in Iran during the period between Mongol and Timurid rule. His aforementioned work gained popularity not only among the Ottomans but also in Safavid Iran and the Mughal Indian subcontinent, with numerous copies surviving to this day<sup>2</sup>. Another significant aspect of this work is that it was produced during the Mongol and Timurid periods. Thus, while the depth of the Mongol-Timurid influence in the Ottoman pharmacopeial corpus requires a more comprehensive study, this work will only briefly address this point.

This paper first introduces *Ikhtiyārāt-i badīʿī* and highlights its position within the Islamic medical and pharmacopeial literature. *Ikhtiyārāt-i badīʿī*, written in Persian in the late 14<sup>th</sup> century, is an extensive pharmacopoeia that discusses not only simple remedies but also compound remedies, and its numerous surviving copies indicate its esteemed status. In this study, while presenting *Ikhtiyārāt-i badīʿī*, aspects that are likely to capture the interest of Ottoman readers have been emphasized.

Subsequently, this study briefly outlines the journey of *Ikhtiyārāt-i badīʿī* in the Ottoman realm, highlighting the points at which it attracted Ottoman interest and how it was utilized as a source. Both in the 14<sup>th</sup> century, when *Ikhtiyārāt-i badīʿī* was composed, and in the 18<sup>th</sup> century, when it was translated into Turkish, the circulation of medical and pharmacopeial knowledge between Ottoman lands and Persia remained steady and uninterrupted. The transmission of Persian medical and pharmacological experience to Turkish-speaking readers was made possible through, albeit partially, translations of esteemed figures such as Zayn al-Dīn Ismāʿīl al-Jurjānī (d. 531/1137), Maḥmūd b. ʿIlyās al-Shīrāzī (d. 730/1330), and Mawlānā Yūsufi Harawī (10<sup>th</sup>/16<sup>th</sup> century), culminating in the 18<sup>th</sup> century with the translation of two significant and comprehensive works: *Ikhtiyārāt-i badīʿī*, the focus of this study, and *Tuḥfat al-muʾminīn* [*The Gift to the Faithful*] by the Safavid physician-author Muḥammad Muʾmīn Ḥusaynī (c. 11<sup>th</sup>/17<sup>th</sup> century). The aim of this paper, however, is not to provide a comprehensive account of the scientific exchange between the lands of Rūm (*diyār-i Rūm*) and Iran (*diyār-i ʿAjam*). Rather, it seeks to explore how Persian pharmacopoeia works, which served as sources for the Ottomans' knowledge of simple remedies, came to their attention, with a

2 See, A. Rahman-M. A. Alvi-S.A. Khan Ghori-K. V. Samba Murthy, *Science and Technology in Medieval India: A Bibliography of Source Materials in Sanskrit, Arabic and Persian*, Indian National Science Academy, New Delhi 1982, p. 19-20; C. A. Storey, *Persian Literature A Bio Bibliographical Survey*, Stephen Austin & Sons, Vol. II, Hertford 1971, p. 220-224; Adolf Fonahn, *Źur Quellenkunde der Persischen Medizin*, Verlag von Johann Ambrosius Barth, Leipzig 1910, p. 85-87.

particular focus on *Ikhtiyārāt-i badīʿī*. This study examines the motivations behind its translation, the methods employed in the process, and its relationship to similar contemporary translations.

### **Zayn-i Aṭṭār [Zayn the Apothecary] and his *Ikhtiyārāt-i badīʿī***

Throughout the Middle Ages, the Persian region, and particularly Shiraz, provided an ideal environment for pharmacologists due to its diverse climate, the ability to cultivate various plant species, and its strategic location along major trade routes. This allowed it to connect with far-reaching regions such as China, India, Yemen, Egypt, Iraq, Anatolia, and the Mediterranean, positioning Shiraz at the center of plant trade traffic. The vineyards and gardens of Shiraz, celebrated in poetry, not only inspired literary works but also created a conducive environment for those studying medicine and pharmacopoeia. In other words, a wide variety of remedies flowed into Shiraz through trade, while its cultivated gardens enabled the agricultural growth of numerous plant species.

In the 14<sup>th</sup> century, Shiraz was home to prominent figures in the fields of science and philosophy. The Muzaffarid ruler Jalāl al-Dīn Shāh Shujāʿ (r. 1358-1384) made Shiraz his capital and gathered scholars and artists in the city<sup>3</sup>. Influential poets of Persian literature, such as Ḥāfez Shīrāzī (d. 792/1390 [?]), produced significant works, while esteemed scholars, including Qutb al-Dīn Shīrāzī (d. 710/1311)<sup>4</sup>, a prominent medieval Islamic astronomer and philosopher; Qaḍī Aḍud al-Dīn al-ʿĪjī (d. 756/1355), author of *al-Mawāqif*, and Sayyid Sharīf al-Jurjānī (d. 816/1413)<sup>5</sup>, renowned for his commentary on al-ʿĪjī's *al-Mawāqif* and invited by Shāh Shujāʿ to serve at the Muzaffarid hospital, reflected the intellectual and literary richness of Shiraz during this era<sup>6</sup>. Thus, the city where Haji Zayn al-Dīn Alī b. Ḥusayn al-Ansārī (previously mentioned as Zayn-i Aṭṭār<sup>7</sup> and will be

3 Maḥmūd Kutbī, *Tārīh-i ʿāl-i Muzaffar*, prep. Abdulhuseyin Nevāi, Muassasa-i intishārāt-ı umūr-i kabīr, Tehran 1366, p. 81; Jan Rypka, *History of Iranian Literature*, D. Reidel Publishing Co. Dordrecht 1968, p. 264-271.

4 “Qoṭb-Al-Dīn Shīrāzī”, *The Encyclopaedia Iranica*, <https://www.iranicaonline.org/articles/qotb-al-din-sirazi>, accessed on 29.09.2024.

5 Karametullah Afsar, *Tārīkh-i bāft-i kadīm-i shīrāz*, Intishārāt-i Anjuman-i Āṣār-i Millī, Tehran 1353, p. 113; John Limbert, *Shiraz the age of Hafez: The Glory of A Medieval Persian City*, University of Washington Press, Washington 2004, p. 117.

6 Afsar, *ibid*, p. 110.

7 The Ottomans frequently referred to Zayn al-Dīn Alī b. Ḥusayn al-Ansārī as Zayn-i Aṭṭār (Zayn the Apothecary) or sāhib-i *Ikhtiyārāt* (the author of *Ikhtiyārāt*). Therefore, I have chosen to refer

referred to as such hereafter), the author of one of the most important works of the Persian pharmacopeial corpus, *Ikhtiyārāt-i badīʿī*, lived, was, as Limbert puts it, simply “*Shiraz in the Age of Hafez*”, a city rich in such scholarly and cultural life<sup>8</sup>.

Zayn-i Aṭṭār, born in AH 730 (1329/30) into a family of physicians, received his initial medical training from his father<sup>9</sup>. From AH 760 (1358/1359) onward, he served as a physician to Shāh Shujāʿ for 16 years<sup>10</sup>. While continuing his practice as a physician, Zayn-i Aṭṭār compiled his pharmacopoeia *Miftāḥ al-khazāʾin* [*the Key of Treasures*] in AH 767 (1365/66), which was actually the first version of his more popular work, *Ikhtiyārāt-i badīʿī*, completed three years later in AH 770 (1368/69). The full title of the book is *Ikhtiyārāt-i badīʿī, fī al-adwīya al-mufrada wa al-murakkaba* or *Ikhtiyārāt-i badīʿī, fī al-ṭibb*, also known as *Jāmiʿ Zayn al-Aṭṭār*, but it is widely referred to simply as *Ikhtiyārāt-i badīʿī*. The work is divided into two sections (referred to as *maqāla* or *risāla* in some manuscripts), covering both simple remedies and compound remedies<sup>11</sup>.

It is evident that the title of the book was inspired by Badīʿ al-jamāl, whom the author praises as “*the protector of faith and the world, the purity of time and place, the source of generosity, and the epitome of beauty*”<sup>12</sup>. Likely upon Badīʿ al-jamāl’s request, Zayn-i Aṭṭār expanded his *Miftāḥ al-khazāʾin* and adapted it to be more suitable for the use of palace women, creating a new compilation<sup>13</sup>. According to the contemporary historian Maḥmūd Kutbī (9<sup>th</sup>/14<sup>th</sup> century), Badīʿ al-jamāl was a devout and charitable woman who, after being captured, married Muzaffarid ruler Mubārez

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to him as Zayn-i Aṭṭār throughout this study. See. Kātip Çelebī, *Kaṣf Al-Ẓunūn An Asāmī Al-Kutub Wa Al-Funūn* (*The Removal of Doubt from the Names of Books and the Sciences*), ed. Ekmeleddin İhsanoğlu and Bashir Awwad Maʿrūf, Vol. 1, Al-Furqān Islamic Heritage Foundation, London 2021, p. 257.

8 Mohtaram Hemmati-Ahmad Fazlinejad, “A Study of Iranians’ Innovations in Pharmacology from Jondi Shapur to Shiraz School”, *Journal of Research on History of Medicine*, Vol.7/No. 3, 2018, p. 143.

9 Farid Ramezany-Mohammad Reza Shams Ardakani, “Ali ibn Hosein Ansari (1330–1404): a Persian pharmacist and his pharmacopoeia, Ekhtiyarat i Badii”, *Journal of Medical Biography*, Vol. 19, 2011, p. 81; Maḥmūd Kutbī, *ibid*, p. 554; Cyril Elgood, *A Medical History of Persia and the Eastern Caliphate*, Cambridge University Press, Cambridge 1951, p. 363.

10 Ramezany-Ardakani, *ibid*, p. 81.

11 Kātip Çelebī, *ibid*, p. 257; Ramezany-Ardakani, *ibid*, p. 81; Elgood, *ibid*, p. 364.

12 Ḥajī Zayn al-Dīn Alī b. Ḥusayn al-Ansārī, *Ikhtiyārāt-i badīʿī*, Bursa İnebey Library, Haraccı 1139, fol. 2b-3a.

13 Ramezany-Ardakani, *ibid*, p. 82; Rahman, et al., *ibid*, p. 19.

al-Dīn Muḥammad (r. 1314-1358)<sup>14</sup>. This aligns with Zayn-i Aṭṭār's elaborate praise: "...no matter how deep understanding, religious consciousness, contemplation of secrets, quick comprehension, and sharp intellect may travel in the vast realm of possibilities and the expanse of time, they cannot reach the throne-bearing, queenly figure, the earthly Bilqis, the queen of women, except in the celestial abode and the gardens of paradise..."<sup>15</sup>. From this lengthy eulogy, it is clear that Badī' al-jamāl held Zayn-i Aṭṭār in high regard and acted as his patron.

After the death of Shāh Shujā' and during the Timurid rule over Shiraz, there is no information available regarding Zayn-i Aṭṭār's activities, except that he passed away in Shiraz in AH 806 (1403/04)<sup>16</sup>. *Ikhtiyārāt*, which has 26 copies identified in Turkish libraries, shows variations in some of its manuscripts<sup>17</sup>. Indeed, in certain

14 Maḥmūd Kutbī, *ibid*, p. 154.

15 Ḥajī Zayn al-Dīn Alī b. Ḥusayn al-Ansārī, *ibid*, fol. 1b. The reason for selecting this copy in this study is that it belongs to the same collection as the Turkish translation of *Ikhtiyārāt*, which I will mention later. This manuscript is a complete copy, with headings and lemmas written in red, and names within the text marked with a red line. It also contains marginal notes in Persian, providing the Turkish equivalents of the terms mentioned on the page along with general explanatory notes. For example, "...the author states that this type grows around Ahwaz and is brought from there [این مؤلف گوید این نوع در اطراف اهواز می روند و از آنجا آورند]." Ḥajī Zayn al-Dīn Alī b. Ḥusayn al-Ansārī, *ibid*, fol. 4b. Another example is when describing the plant *abū khalsa* (melilot bugloss), where the author notes the definition as, "...in Turkish, it is called *eşek marulu* (donkey lettuce) ..." Ḥajī Zayn al-Dīn Alī b. Ḥusayn al-Ansārī, *ibid*, fol. 5b.

16 Maḥmūd Kutbī, *ibid*, p. 554.

17 Complete copies available in Turkish libraries include: İnebey Library, Haracci 1139; Fatih 03525; Nuruosmaniye 03455; Ayasofya 03547; Nuruosmaniye 03454; Şehid Ali Paşa 01999; Ayasofya 03549-003; Ayasofya 03553; Laleli 01614; Ayasofya 03549-001; Auf Efendi 01950; and Konya Regional Manuscript Library: BY0000004487. Additionally, the Fatih 03525 manuscript, which includes a detailed index at the beginning, constitutes the first volume of *Ikhtiyārāt*, while Fatih 03560 serves as its second volume, making both a complete set. Similarly, the complete manuscripts Ayasofya 03549-001 and Ayasofya 03549-003 include supplementary texts at the end, explaining the arrangement of the lemmas and clarifying ambiguous sections. The manuscripts where I identified omissions include: Ayasofya 03548, which is an illustrated copy with colorful, detailed, and finely drawn botanical illustrations. However, it is missing content from the letter "za" onward, and while spaces were left for illustrations on the final pages, the images were not included. Ayasofya 03747, Ayasofya 03546, Lala İsmail: 00638, Murad Molla: 01473, Antalya Tekelioğlu: 00501, and IUNEK Persian Manuscripts: NEKFY00635 lack the second section (*maqāla*). The Hekimoğlu Ali Paşa 00563 manuscript is incomplete from the letter "nün" onward. The Bursa İnebey Library General: 1552/2 manuscript is missing the final parts of the second section, while in the Bayezit B9524 manuscript, several folios are missing. Some manuscripts also show textual differences. For instance, in the Haracci 1139 manuscript, the table of contents for the second section, present on folio 351a, is missing in the Ayasofya 03550 copy. The Manisa Public Library 1848/3 manuscript is registered under the title *Ikhtiyārāt-i badīʿī*, but it is not the same work. This study only evaluates the copies available in Türkiye. Although



versions of the text, it is evident that sentences beginning with “ابن مؤلف گوید / *the son of the author states...*” were additions made by his sons<sup>18</sup>.

The first *maqāla* of the book focuses on simple remedies and introducing the remedies in alphabetical order. Many of the lemma titles are in Arabic, as was customary for the scientific language of that period. Following the lemma names, information is provided on their local equivalents, types, properties, benefits, potential harms, and possible substitutes to use if they are unavailable. In short, Zayn-i Aṭṭār adhered to a tradition applied in nearly all classical Islamic pharmacopoeias. In line with the tradition of Islamic pharmacopeial literature, while the lemmas are given in Arabic for terminological consistency, *Ikhtiyārāt* also follows the practice of including equivalents in Greek, Berber, Persian, Syriac, Turkish, Mongolic, and Indian languages<sup>19</sup>. However, although Zayn-i Aṭṭār structured his work with Arabic names, he also provided Persian equivalents for each lemma, along with local names used in regions within Iran (such as Shiraz, Tabriz, and Isfahan). This not only created Persian equivalents for remedies for Persian-speaking readers but also strengthened this tradition in subsequent Persian medical texts. In other words, through *Ikhtiyārāt*, which extensively included Persian equivalents of the Arabic lemma dominant in the Islamic Middle Ages, a nomenclature for the Persian pharmacopeial corpus was established<sup>20</sup>. However, since not every reader would be familiar with the Arabic technical terms for remedies or the Arabic

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a comprehensive review of all existing copies of *Ikhtiyārāt-i Badī'i* worldwide is necessary, it is beyond the scope of this article. For manuscripts outside of Türkiye, see footnote 2.

18 See Alī b. Ḥusayn al-Ansārī Shīrāzī, *Ikhtiyārāt-i badī'i*, ed. Farid Ramezany-Mohammad Reza Shams Ardakani, Shirkat-i Dārūyi- Bakhsh-i Rāzī, Tehran 1997. This work is a critical edition of *Ikhtiyārāt-i badī'i*, prepared based on several manuscripts available worldwide. However, it appears that the numerous copies held in Turkish libraries were not utilized. The manuscripts in Turkish libraries show slight differences from this critical edition. For example, the sentences beginning with “*the son of the author states...*” mentioned above are not present in the copies held at Bursa İnebey Library, Haracci 1139; Fatih 03525; Nuruosmaniye 03455; and Ayasofya 03547.

19 In the corpus of medieval Islamic pharmacology, lemma titles were naturally composed of Arabic terms or words Arabized from languages like Greek and Persian, while vernacular languages such as Persian, Syriac, Coptic, and Turkish were included afterward in this hierarchy. The purpose of adding vernacular terms was to enable pharmacopoeia readers, especially in a discipline like medicine that directly impacts human health, to correctly identify the plants. Maria Mavroudi, “Arabic Terms in Byzantine Materia Medica Oral and Textual Transmission”, *Drugs in the Medieval Mediterranean Transmission and Circulation of Pharmacological Knowledge*, eds. Petros Bouras-Vallianatos-Dionysios Stathakopoulos, Cambridge University Press, Cambridge 2024, p. 143-44; Shireen Hamza, “Vernacular Languages and Invisible Labor in Tıbb”, *Osiris*, Vol. 37, 2022, p. 119.

20 Ramezany-Ardakani, *ibid*, p. 80.



medical terminology, independent treatises were also prepared to explain the Arabic terms and remedy names used in *Ikhtiyārāt* for its readers<sup>21</sup>.



**Figure 1:** Depiction of the ebony tree and its fruit. Hājī Zayn al-Dīn Alī b. Ḥusayn al-Ansārī, *ibid*, Ayasofya 03548, fol. 8b.

The second *maqāla*, however, addresses compound remedies and is organized into sixteen chapters<sup>22</sup>. He was able to acquire and experiment with many plant species, even those not native to the Persian region, thanks to Shiraz's position along major trade routes<sup>23</sup>. Thus, he had the knowledge and experience to test the data from prominent medieval pharmacopoeia authors, such as Ibn al-Bayṭār and Ibn al-Kutubī, whose works he frequently referenced<sup>24</sup>. Thus, this work, which succeeded in achieving originality, maintained its prestige even during the periods when Western influences were felt in the Iranian pharmacological literature<sup>25</sup>.

21 One of these works is the treatise titled *Badīʿiyyāt-i ikhtār-i der ḥall-i Ikhtiyārāt-i badīʿī*, found at the end section of the Ayasofya 03549-003 manuscript, whose author is unknown. The author of this treatise states in the introduction that the reason for writing it was to clarify the terminology and words, as they consist of Arabic medical terms.

22 The second *maqāla* roughly include: tonics, electuaries, digestive facilitators, electuaries of myrobalam, jams, syrups and drinks, linctuses, powders, pills, tablets, laxatives, suppositories, antidotes, dental powders, oils, plasters, and ointments. Hājī Zayn al-Dīn Alī b. Ḥusayn al-Ansārī, *ibid*, fol. 351a.

23 Ahmad Fazlinejad-Sedigheh Parvizinia, "Investigating the Role of Single Herbal Medicine Trade in the Development of Pharmacological Knowledge in Fars in the Eighth and Ninth Centuries AH", *Journal of Research on History of Medicine*, Vol. 10/No. 1. 2021, p. 6.

24 Fazlinejad-Parvizinia, *ibid*, p. 10-11.

25 Elgood, *ibid*, p.364; Ramezany-Ardakani, *ibid*, p. 83.

The author, considering the interests of Badī' al-jamāl to whom he dedicated his work, did not limit the content to just the description and use of remedies but also included recipes for various foods and fragrances. Additionally, taking into account the differences between male and female bodies, he devoted special sections to remedies specifically for women's health and ailments (such as menstruation, childbirth, breastfeeding, and cosmetic recipes tailored for women). As I will elaborate below, it is evident that Ottoman authors also referred to *Ikhtiyārāt* when discussing treatments and recipes specific to women, making it a frequently consulted source in this regard, as I will detail further.



**Figure 2:** Depiction of the plum tree and its fruit. Hacı Zayn al-Dīn Alī b. Hısayn al-Ansārī, *ibid*, fol. 12b.

### The Journey and Influence of *Ikhtiyārāt* among the Ottomans

In the second half of the 14<sup>th</sup> century, when *Ikhtiyārāt* was compiled, and in the period that followed, scholars who wished to leave Iran due to the political instability following the Timurid era tended to prefer Ottoman territories, thanks to the presence of earlier Iranian scholars in Ottoman scholarly centers<sup>26</sup>. The flow of scholars from the regions of Iran and Azerbaijan to Anatolia and Rumelia, which would later become Ottoman territories, continued to exist from the very foundation of the Ottoman Empire in the 14<sup>th</sup> century, albeit with fluctuations<sup>27</sup>.

26 Tofiq Heidarzadeh, “İran Alimlerinin Osmanlı Devleti’ne Gelişi ve Osmanlı Bilimine Katkıları”, transl. Aysu Albayrak, *Osmanlı Bilimi Araştırmaları*, Vol. 2, June 1998, p. 228; M. Khabiry-R. Ahansazan-H. Ahansazan, “Pezeşkiyâne İrānī der emperatūriyye Osmānī (ez karn-e nehom tā devāzdehom hicrī)”, *Journal of Research on History of Medicine*, Vol.7/No. 2, 2018, p. 94.

27 See. Ertuğrul Ökten, “Scholars and Mobility: A Preliminary Assessment from the Perspective of

Particularly in the 15<sup>th</sup> century, following the conquest of Istanbul, the Ottoman territories became attractive to scholars due to their newfound political stability and the construction of numerous madrasas, which created a demand for professors<sup>28</sup>. Likewise, during this period, the Ottoman court, having consolidated regional political power, offered ideal patronage opportunities for Muslim scholars. During the reign of Mehmed II (r. 1444-1446, 1451-1481), physicians arriving from Iran were held in high regard and appointed to positions at the Topkapı Palace<sup>29</sup>. In addition to scholars who came voluntarily, there were also those forcibly brought to Istanbul by Selim I (r. 1512-1520) after his conquest of Tabriz, along with hundreds of other scholars and craftsmen<sup>30</sup>.

During this period, several key figures stand out in establishing a network between the Iranian region and the Ottomans: Sabuncuoğlu Şerefeddīn (d. after 873/1468) and Jalāl al-Dīn al-Dawānī (d. 908/1502). In the 15<sup>th</sup> century, the Amasya Darüşşifa (hospital) became a significant stop for some scholars coming from Iran. For instance, during the reign of Mehmed II, Muḥammad b. Maḥmūd al-Shirvānī (9<sup>th</sup>/15<sup>th</sup> century), who influenced Ottoman gastronomy and medicine through his works and was described by Taşköprizāde Ahmed (d. 968/1561) as a “*very knowledgeable and virtuous physician*”, is said to have received training at the Amasya Darüşşifa<sup>31</sup>. While it is unclear whether Şerefeddīn had any contact with Shirvānī, he held an important position in this transfer network. Indeed, another contemporary Ottoman scholar of Şerefeddīn, Ibn Şerīf (9<sup>th</sup>/15<sup>th</sup> century), is known to have met Shirvānī or seen his works<sup>32</sup>. In this regard, it is noteworthy

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al-Shaqāyiq al-Nu'māniyya”, *Osmanlı Araştırmaları / The Journal of Ottoman Studies*, Vol. XLI, 2013, p. 60-61.

28 Abdurrahman Atçıl, “Mobility of Scholars and Formation of a Self-Sustaining Scholarly System in the Lands of Rūm during the Fifteenth Century”, *Islamic Literature and Intellectual Life in Fourteenth- and Fifteenth-Century Anatolia*, eds. A.C.S. Peacock-Sara Nur Yıldız, Orient-Institut Istanbul, Istanbul 2016, p. 319.

29 M. Khabiry, et al., *ibid*, p. 96-97; For some scholars from the region, see. Taşköprülüzade Ahmed Efendi, *Eş-Şakā'iku'n-Nu'māniyye fī Ulemā'i'l-Devleti'l-Osmāniyye*, ed. Muhammed Hekimoğlu, Türkiye Yazma Eserler Kurumu Başkanlığı Yayınları, Istanbul 2019, p. 362, p. 368, p. 674; See also. Heidarzadeh, *ibid*, p. 218-222.

30 Bilal Dadayev, “Azerbaijani physicians in the Ottoman Empire in the 15-16th Centuries”, *Journal of Research on History of Medicine*, Vol.9/No.1, 2020, p. 30.

31 Taşköprülüzade, *ibid*, p. 362; Dadayev, *ibid*, p. 23.

32 Tabib İbn Şerif, *Yadigar: 15. Yüzyıl Türkçe Tıp Kitabı*, ed. Orhan Sakin, Zeytinburnu Belediyesi Yayınları, Istanbul 2017, p. 473.

that Şerefeddin translated only the last part (*Aqrabādhīn*, the 10<sup>th</sup> book)<sup>33</sup> of Zayn al-Dīn Ismā'il al-Jurjānī's *Dhakhīra-i khwārazmshāhī* [*the Treasure of Khwarazmshāhī*] into Turkish in the 15<sup>th</sup> century, rather than the entire work<sup>34</sup>. Through his translation of a portion of al-Jurjānī's *Dhakhīra-i khwārazmshāhī*, Şerefeddin was a pioneer in introducing the Persian medical tradition into the Ottoman intellectual milieu. By contrast, the complete work was later translated into Turkish in the 16<sup>th</sup> century by Abū'l-Faẓl Muḥammad b. Idrīs Efendi al-Defterdār (d. 971/1564) under the title *Qānūn al-ʿilāj wa shifāʾ al-amrāz li-kulli mizāj* [*The Canon of Treatment and the Healing of Diseases according to Every Humoral Temperament*]<sup>35</sup>. Additionally, Şerefeddin mentored the Iranian physician Ghiyāth al-Dīn b. Muḥammad Mutatabbib Isfahānī (d. 908/1502), who came to Amasya to advance his medical knowledge, enabling him to later serve the Ottomans<sup>36</sup>. Like Şerefeddin, Ghiyāth al-Dīn also utilized al-Jurjānī's *Dhakhīra* in his own work, *Mir'āt al-sihḥa fī al-tibb* [*The Mirror of Health in Medicine*], which he presented to Bayezid II (r. 1481-1512)<sup>37</sup>.

Apart from Şerefeddin, al-Dawānī also played a key role in facilitating the migration of Iranian scholars to Ottoman territories. He maintained connections with both Ottoman Sultan Bayezid II and the scholars in Istanbul and Anatolia<sup>38</sup>. Al-Dawānī and his students, such as Ḥakim-shāh Muḥammad al-Qazvīnī (d. 928/1522), were pivotal in the exchange of knowledge and scholars between Iran and Anatolia<sup>39</sup>. Indeed, this network established by al-Dawānī was supported by his former student, Mu'eyyedzāde Abdurrahmān Efendi (d. 922/1516), who was known for his close ties with Bayezid II and his open support for scholars coming from Iran, such as Idrīs Bidlīsī (d. 926/1520)<sup>40</sup>.

33 Feridun Nafiz Uzluk, "Zahire-i Harzemşahi "Trésor du roi du Hwarzm"", *Dirim*, Vol. 42/No: 5-6: 1967, pp. 134-137.

34 İter Uzel, "Bir 15. Yüzyıl Türk Bilim Adamı ve Hekimi: Şerefeddin Sabuncuoğlu (1385-1468?)", *Ankara Tıp Mecmuası*, Vol. 43, 1990, pp. 289-316.

35 Ekmeleddin İhsanoğlu-Ramazan Şeşen-M. Serdar Bekar Gülcan Gündüz-Veysel Bulut, *History of the Literature of Medical Sciences During the Ottoman Period*, IRCICA, Vol.1, Istanbul 2008, 144-145.

36 İhsanoğlu, et al., *ibid*, p. 93.

37 Khabiry, et al., *ibid*, p. 98; Elgood, *ibid*, p. ,356.

38 Sec. Taşköprülüzade, *ibid*, p. 234; p. 254; p. 468; p. 566; p. 740; p. 812.

39 Taşköprülüzade, *ibid*, p. 528.

40 Christopher Markiewicz, *The Crisis of Kingship in Late Medieval Islam: Persian Emigres and the Making of Ottoman Sovereignty*, Cambridge University Press, Cambridge 2019, p. 82-83.

The pharmacopeial works produced in the Ottoman, Safavid, and Mughal empires, which inherited the scholarly and cultural sphere established by the Timurids, circulated to varying extents not only among these three states but also in other Islamic territories. For example, *Jāmiʿ al-Fawāʿid* [*Collection of Useful Knowledge*], one of the works by Mawlānā Yūsufī Harawī (10<sup>th</sup>/16<sup>th</sup> century), who served the Timurid court and then left Iran for India, had several copies that made their way to Istanbul, while his famous *Treatise on Tea* was translated into Ottoman Turkish by Bursalı Alī Münşī (d. 1146/1733)<sup>41</sup>. Similarly, the renowned work *Tadhkira ʿulī al-bāb* [*Reminder for People of Intellect*] by the famous Ottoman author Dāwūd al-Anṭākī (d. 1008/1599) was widely circulated from Iran to the Maghreb<sup>42</sup>. A prominent example of reciprocal exchange between the two regions is the translation of Muḥammad Muʾmīn Ḥusaynī's *Tuḥfat al-muʾminīn* [*Gift to the Faithful*], completed in 1669 and dedicated to Safavid ruler Suleimān Safavī (r. 1666-1694), which drew upon sources like Dāwūd al-Anṭākī's *Tadhkira*<sup>43</sup>. It was translated into Ottoman Turkish by Gevrekzāde Ahmed Sānī (d. 1178/1764) under the title *Gunyat al-muḥaṣṣilīn fī tarjamat tuḥfat al-muʾminīn* [*The Sufficient Guide for Translating the Gift to the Faithful*], and numerous copies have survived.

The circulation I have briefly summarized contributed to the journey of *Ikhtiyārāt* within Ottoman territories. Determining exactly when *Ikhtiyārāt* arrived is challenging. Tracing its presence in the texts, I find no mention of it in the works of renowned 16<sup>th</sup>-century scholars such as Ibn Ṣerīf's (9<sup>th</sup>/15<sup>th</sup> Century) *Yādiḡār*, Nidāī Ankarāvī's (d. after 975/1567) *Menāfiʿ al-nās*, or most notably Dāwūd al-Anṭākī's *Tadhkira*. He, the most prominent representative of the Ottoman pharmacopoeia literature and author of *Tadhkira*, does not mention *Ikhtiyārāt* in his work. While listing the Arabic-writing authors who had produced works in this field before him, neither the title nor any reference to *Ikhtiyārāt* or Zayn-i Aṭṭār appears in his text<sup>44</sup>. Similarly, there is no trace of *Ikhtiyārāt* in the works of Şerefeddīn, who had some contact with Iran.

41 İhsanoğlu et al., *ibid*, p. 354.

42 See. Ellen Amster, "Ottoman Science in the Maghrib: Islamic Medicine and the Translation into Local Maghribi Contexts of Dawud al-Antaki's Tadhkira", *Proceedings of the International Congress on The Maghreb and the Western Mediterranean in the Ottoman Era*, IRCICA, Istanbul 2013, p. 9-19.

43 Muḥammad Muʾmīn Ḥusaynī, *Tuḥfat al-muʾminīn*, Süleymaniye Library, Bağdatlı Vehbi 01416, fol. 2b.

44 Dāwūd al-Anṭākī, *Tadhkirat ʿulī al-albāb wa al-jāmiʿ li al-ʿajab al-ʿujāb*, Süleymaniye Library, Ayasofya: 03586, 11b.

Despite this silence in Ottoman texts, *Ikhtiyārāt* is known to have been part of the library at the court of Bayezid II. In the catalog of the palace library compiled by Merzifonlu Hayreddin Atüfî (d. 948/1541), *Ikhtiyārāt* is listed under the subject of *adwiya wa'l-mufrada* (simple remedies)<sup>45</sup>. This indicates that *Ikhtiyārāt* was already present in Ottoman territories in the early 16<sup>th</sup> century, likely reaching the Sultan through the scholarly circulation mentioned above. Of course, *Ikhtiyārāt* made its presence known in certain texts during this century. Hasan b. Abdurrahmân (10<sup>th</sup>/16<sup>th</sup> century), who translated Ibn al-Kutubî's *Mā lā yasa'u tabība jahluhu* [*What a Physician Cannot Afford to Ignore*] into Ottoman Turkish—a book frequently utilized by Zayn-i Aṭṭār—referred to *Ikhtiyārāt* in his translation by describing it as “*the Persian pharmacopoeia known as Mufradāt-i ikhtiyārāt-i badī'ī*”<sup>46</sup>. He thus drew upon *Ikhtiyārāt* for additions and explanations. Although Hasan was not a physician, he noted that he had examined the pharmacopeial books of his time and received support from esteemed figures such as Hodja Sa'deddin Efendi (d. 1008/1599) and other prominent physicians of the period<sup>47</sup>. This demonstrates that *Ikhtiyārāt* was already known and utilized during that time among the works Hasan consulted while preparing his translation. Hasan must have assumed that his readers might lack sufficient knowledge about *Ikhtiyārāt*, as he felt the need to briefly introduce it. In any case, it is evident that it was among the pharmacopeial works referenced by physicians of that era.

*Ikhtiyārāt* began to assert itself more strongly in pharmacopeial texts authored in the 17<sup>th</sup> century. For instance, authors such as Sakızlı İsâ Efendi (d. 1059/1649) and Hezârfen Hüseyin Efendi (d. 1103/1691) must have been aware that *Ikhtiyārāt* was not yet widely known, as they included brief introductions to the work. Sakızlı İsâ Efendi, who frequently referenced *Ikhtiyārāt* in his writings, introduced Zayn-i Aṭṭār with the statement: “*The author of Ikhtiyārāt-i badī'ī was a man who worked as an attār (pharmacist) and 'aṣṣāb (herbalist) for forty years, endured many hardships, and explained every remedy with proof, drawing from numerous medical books...*” acknowledging his

45 Himmet Taşkömür-Hesna Ergun Taşkömür, “Transliterated Text of MS Török F. 59”, *Treasures of Knowledge An Inventory of the Ottoman Palace Library (1502/3-1503/4)*, eds. Gülrü Necipoğlu-Cemal Kafadar-Cornell H. Fleischer, Brill Publishing, Leiden & Boston 2019, p. 119.

46 “*Müfredāt-ı İhtiyārāt-ı bedī'ī dimekle ma'rūf Fārisī müfredāt kitābı...*” Hasan b. Abdurrahman, *Tercüme-i Mā-Lā Yēsā'u't-Tabībe Cehlulu*, ed. Sibel Murad-Nuray Demir Öztürk-Ahmet Akdağ, Türkiye Yazma Eserler Kurumu Başkanlığı Yayınları, İstanbul 2024, p. 830.

47 Hasan b. Abdurrahman, *ibid.*, p. 100-02.



expertise<sup>48</sup>. Similarly, Hezārfeñ Hüseyn emphasized the recognition of the work in the literature by stating, “*Ikhtiyārāt and other respected books...*”<sup>49</sup>

In the 17<sup>th</sup>-century Ottoman pharmacopeial texts, *Ikhtiyārāt* was among the works consulted, alongside Ibn al-Bayṭār's *al-ǧāmiʿ li-mufradāt*, particularly for details on the properties and uses of remedies. Beyond medical texts, *Ikhtiyārāt* was also a significant reference for those conducting studies in Persian literature. For example, Şuʿūrī Hasan Efendī (d. 1105/1693-94), who compiled the comprehensive Persian dictionary *Farhang-i şuʿūrī*, extensively utilized *Ikhtiyārāt* in his detailed explanations of medicinal lemmas<sup>50</sup>. Şuʿūrī's reliance on *Ikhtiyārāt* underscores the work's prestige among the Ottomans as a credible source for Persian pharmacological and medical terminology.

As seen in phrases such as “...*the author of Ikhtiyārāt was mistaken in this matter...*,”<sup>51</sup> the Ottomans occasionally compared the information they obtained from the book with other works. The Ottomans evaluated Zayn-i Aṭṭār's descriptions and definitions by comparing them with those of other pharmacopeial authors or perhaps tested *Ikhtiyārāt* through their own observations and experiences. In the 18<sup>th</sup> century, Yirmisekizçelebizāde Mehmed Saʿīd Paşa (d. 1175/1761) made a similar critique in *Farāʿid al-mufradāt* [*The Essentials of Simple Remedies*], stating, “...*the author of Ikhtiyārāt taking a risk, stated it was...*”<sup>52</sup>.

*Ikhtiyārāt* not only includes Zayn-i Aṭṭār's experiences and insights but also incorporates the views and experiences of approximately 30 earlier medicine scholars, making it a frequent reference for Ottoman scholars<sup>53</sup>. Furthermore, Zayn-i Aṭṭār created a comprehensive work that encompassed not only the

48 Sakızlı İsa Efendi, *Nizāmü'l-Edviye*, ed. Mükerrrem Bedizel Aydın-Sibel Murad, Türkiye Bilimler Akademisi Yayınları, Ankara 2019, p. 69.

49 Hezarfen Hüseyn b. Ca'fer el-İstanköyî, *Tuhfatı arîbi an-nâfi'a li al-rûhânî wa al-tabîb*, Milli Kütüphane (National Library of Türkiye) Yazmalar 06 Mil Yz A 9863, fol. 43b; See also. Hezarfen Hüseyn b. Ca'fer al-İstanköyî, *Lisân al-aṭibbâ*, Reşid Efendi 00705-001, fol. 2a.

50 See. Şuʿūrī Hasan Efendi, *Ferheng-i Şuʿūrî*, ed. Ozan Yılmaz, Türkiye Yazma Eserler Kurumu Başkanlığı Yayınları, Vol. 1, İstanbul 2019, p. 382.

51 “*Sâhib-i İkhṭiyārāt bu husûsda hatâ edüþ...*” Sakızlı İsa Efendi, *ibid*, p. 172.

52 “*İkhṭiyārāt sâhibi mücâzeḡe edüþ ...*” Yirmisekizçelebizāde Mehmed Saʿīd Paşa, *Farāʿid al-mufradāt*, Süleymaniye Library, Hüsrev Paşa 00477, fol. 18a.

53 Ramezany-Ardakani, *ibid*, p. 82; Azam Khosravi-Saeed Changizi-Ashtiyani-Saeed Amini, “The Interaction between Hellenic and Persian Pharmacology: What's the output?”, *The Open Public Health Journal*, 15. 2022, <https://www.sciencedirect.com/org/science/article/pii/S1874944522000405#r39>, accessed on 12.10.2024.



knowledge produced in the Iranian and Indian regions but also the descriptions, opinions, and formulas from other Arabic and Persian pharmacopeial texts. As seen, for example, in Sakızlı İsa's use of *Ikhtiyārāt* to convey the views of Sharīf al-Idrīsī (d. 560/1165), the Ottomans accessed a summary of pre-14th-century Islamic pharmacopeial knowledge largely through this work<sup>54</sup>.

In the 17<sup>th</sup> century, the production of works in Ottoman literature in this field, whether original or translations, increased compared to the previous century<sup>55</sup>. For instance, pharmacopeial texts such as Ibn al-Kutubī's *Mā lā yasa'u tabība jahluhu*, Dāwūd al-Anṭākī's *Tadhkira*, Sennert's *Pharmacologie*, Ibn al-Bayṭār's *al-al-Mughnī fī al-adwiyah* and *al-ġāmi' li-mufradāt*, von Mynscht's *Thesaurus*, Muhammad Mu'min Husaynī's *Tuhfat al-mu'minīn*, and Mattioli's *Commentarii* were translated into Ottoman Turkish<sup>56</sup>. Likewise, as I will examine in detail below, the translation of *Ikhtiyārāt* was also completed during this period.

The increase in the production of works starting in the 17<sup>th</sup> century was primarily driven by the belief that the simple remedies in circulation at the time were insufficient to cure diseases, prompting the search for new remedies and treatments<sup>57</sup>. The inclusion of medical applications of alchemy or iatrochemistry by Paracelsus and his followers, the introduction of plants such as smilax (known as *chūpchīnī*) from the India-China region, and the emergence of new plants like coffee increased interest in these works. More precisely, those who found the existing knowledge inadequate and sought new treatments began turning to these texts.

Additionally, the 17<sup>th</sup> century marked the peak of Ottoman imperial expansion, during which the empire encompassed ancient cultural and scientific centers like Syria and Egypt and held the Islamic literary heritage accumulated over a millennium. This was also a period when the Ottomans drew closer geographically and culturally to vibrant Islamic regions like Iran and the Indian subcontinent. Consequently, works like *Ikhtiyārāt*, which recorded and transmitted the experiences of those living in these regions, gained attention in Ottoman Istanbul and other

54 Sakızlı İsa Efendi, *ibid*, p. 132; Hacı Zayn al-Dīn Alī b. Husayn al-Ansārī, *ibid*, p. 31a.

55 See. İhsanoğlu et al., *ibid*, p. CIII.

56 İhsanoğlu et al., *ibid*, p. CXIX-CXXII.

57 See. Mükerrrem Bedizel Zülfiğer-Aydın. "Osmanlı Tıbbında 'Müfred Devâ' Kullanımı ve 'Müfredât' Eserlerinin Genel Özellikleri", *Osmanlı Bilimi Araştırmaları*, Vol. VI/No. 2, 2005, p. 309.

central cities of the empire for their detailed knowledge about plants brought from Asia and their proper use.

Dāwūd al-Anṭākī, the author of *Tadhkira*, a seminal work in Ottoman and Islamic literature, also showed interest in Persian and Indian pharmacology thanks to his mentor, incorporating his observations into his writings<sup>58</sup>. During this period, when interest in works from the Persian and Indian regions as well as mineral remedies was growing, Fazlīzāde Mehmed mentioned both Dāwūd al-Anṭākī and *Ikhtiyārāt* as the best sources for certain mineral compositions in his *Mufradāt al-tibb*<sup>59</sup>. Similarly, in his treatise introducing zedoary (*jadwār*), Alī Münşī claimed that Latin physicians had no knowledge of this plant and that Indian physicians were more knowledgeable. However, he chose to rely on *Ikhtiyārāt* as a key source on Indian medicine in his treatise<sup>60</sup>.

Just as Alī Münşī did, Sakızlı İsa and Fazlīzāde Mehmed also referred the detailed information on *jadwār* (zedoary) found in *Ikhtiyārāt* in their works<sup>61</sup>. Around the same time, Europeans began exploratory expeditions to the Indian regions to study plants like *jadwār*, ginger, and turmeric on site<sup>62</sup>.

*Ikhtiyārāt* is not merely a preferred source for simple remedies; it stands out among other pharmacopoeia works, particularly regarding women's health. Since Zayn-i Aṭṭār wrote this work specifically for a princess, the detailed explanations he provided on women's health and illnesses became a source of information for Ottoman authors as well. Consequently, *Ikhtiyārāt* became one of the sought-after works when Ottoman authors searched for answers on these topics. For instance, Siyāhī Lārendevī (d. before 1100/1689) partially translated *Ikhtiyārāt* into verse in

58 Natalia Bachour, "Iatrochemistry and Paracelsism in the Ottoman Empire in the Sixteenth and Seventeenth Centuries", in *Intellectual History of the Islamicate World*, eds. J. Decter-B. Roggema-J. Thiele, Brill Publishing, Leiden 2018, p. 90.

59 Fazlīzāde Mehmed Çelebī, *Risāle-i fīʾt-tubb*, Süleymaniye Library, Hamidiye 01017, fol. 84b.

60 İbrahim Topçu, "Bursalı Alī Münşī'nin Risale-i Cedvar Adlı Eserinin Çevirisi ve Tıbb-i Cedid Dönemi Osmanlı Hekim Kimliğine Dair Hatırlatıkları", in *Hakan Ertin'e Armağan*, eds. M. İ. Özekmekçi-A. Az-M. Barış-T. Bardakçı, Betim Kitaplığı, İstanbul 2022, p. 311.

61 Hacı Zayn al-Dīn Alī b. Hısayn al-Ansārī, *ibid*, fol. 63a-b; Muhammed Rızā-yı Tabīb Īrānī, *Tercume-i ikhtiyārāt-ı badīʿī*, Bursa İnebey Library 409, fol. 71; Sakızlı İsa Efendi, *ibid*, p. 218; Fazlīzāde Mehmed Çelebī, *ibid*, fol. 25b-26a.

62 Andrew Dalby, "Plants as Luxury Foods", *A Cultural History of Plants*, ed. Andrew Dalby-Anette Giesecke, Bloomsbury Academic, Londra 2022, Vol. III, p. 60-65.

his poetic work on medicine<sup>63</sup> and used its relevant sections for treatment methods, especially concerning skin and dental diseases, as well as women's health issues (such as difficulties during pregnancy)<sup>64</sup>. Similarly, Hezārfen Hüseyn Efendi also referenced Zayn-i Aṭṭār's experiences while describing a remedy for pregnancy-related issues<sup>65</sup>.

In summary, *Ikhtiyārāt* was seen by Ottoman authors as a work that re-tested the knowledge from earlier Islamic pharmacopeial texts, provided information on remedies originating from Asia (particularly Iran and India), and distinguished itself with its focus on mineral compositions. Additionally, it encompassed cosmetic and culinary information, as well as detailed examinations of women's health and illnesses and their treatments. As such, this esteemed work in Ottoman medicine was eventually translated into Ottoman Turkish.

### **The Turkish translation of *Ikhtiyārāt*: *Tercume-i ihtiyārāt***

*Tercume-i ihtiyārāt* was translated into Ottoman Turkish by Muhammed Rızā-yı Tabīb Īrānī<sup>66</sup> (12<sup>th</sup>/18<sup>th</sup> century) in Jumāda al-Awwal 1166 (March 1753), as the Sun approached the Aries. Beyond being of Iranian origin and a physician, Muhammed Rızā, whose identity I have not been able to determine, provides no further details about himself<sup>67</sup>. Muhammed Rızā introduces *Ikhtiyārāt* by stating, “*Alī b. Husayn al-Ansarī compiled a pharmacopoeia in Persian, known as Ikhtiyārāt-i badīʿi, which is a reputable and widely used book among physicians*”. He then explains that he translated it into Turkish because, being in Persian, no one in this Turkish-speaking region could benefit from it<sup>68</sup>.

63 Siyāhī Lārendevī, *Manzūme fī ʿilm al-ṭibb*, Süleymaniye Library, Nuruosmaniye 03556-003, fol. 190a.

64 Siyāhī Lārendevī, *ibid*, fol. 213b; fol. 217a-b; fol. 224b; fol. 226b.

65 Hezarfen Hüseyn Efendi, *Tuhfetü erbiʿn-nāfiʿa*, fol. 59b.

66 Muhammed Rızā-yı Tabīb Īrānī, *ibid*, fol. 2b.

67 İhsanoğlu, et al., *ibid*, p. 431. There was a physician named Muhammed Rızā who lived during this period and trained under the physician Şaʿbān Şifāi (d. 1116/1705) in Diyarbakır. After residing in Istanbul for a certain period, he returned to his hometown of Diyarbakır and passed away in 1180 (1767). However, despite my examination of the other works of the aforementioned scholar, I find it unlikely that the translator Muhammed Rızā I am discussing is the same person as this scholar. See: Bursalı Mehmed Tahir, *Osmanlı Müellifleri* ed. M. A. Yekta Saraç, TÜBA, Vol. 2, Ankara 2016, p. 1171.

68 Muhammed Rızā-yı Tabīb Īrānī, *ibid*, fol. 2b.

This translated work begins with the Galenic humoral theory, which is not present in the original text<sup>69</sup>. It discusses the idea that bodies (minerals, plants, and animals) are formed from the proper combination of the four elements. The translator states that the purpose of beings that serve as remedies is to maintain human health and provide benefits against illnesses, and he notes that this knowledge is transmitted to humans through experimentation and research by physicians<sup>70</sup>. This explanation is rooted in Aristotelian philosophy, which holds that everything in the universe exists with a purpose<sup>71</sup>.

Following this, the translation includes detailed explanations—originally developed by Ibn Sina and further elaborated by Zayn-i Aṭṭār—on where and how remedies are obtained, their storage conditions, and methods of use<sup>72</sup>. After this detailed introduction, the text continues with an alphabetical arrangement of simple remedies, beginning with the letter *alif*. Each lemma describes the remedy's uses, its benefits, and, if applicable, its side effects.

This work, which has only one known copy in Turkish libraries, has not been finalized. The 278-folio manuscript is a draft, featuring differences in line counts and occasional scribbles on some pages. The headings of lemmas are marked with strikethroughs. The fact that the only identified copy of this work is in Bursa is notable. During that period, two of the most prolific figures in Ottoman medicine, Ömer Şifāi (d. 1155/1742) and Alī Münşī, were based in Bursa. Although Alī Münşī likely never saw this translation, *Ikhtiyārāt* is listed among the sources referenced in his works. The survival of two copies of *Ikhtiyārāt* in Bursa's libraries suggests that physicians in Yıldırım Darüşşifa (hospital) or over Bursa, in general, showed interest in *Ikhtiyārāt*. It can be assumed that translator Muhammed Rızā completed his work in Bursa, driven by this local interest. Indeed, Hagen suggests that in such translations into Ottoman Turkish, the translators were likely motivated by something beyond merely making the work accessible to Turkish-speaking readers<sup>73</sup>. Muhammed Rızā, who likely identified himself as an Iranian-origin

69 Muhammed Rızā-yı Tabīb Īrānī, *ibid*, fol. 2a.

70 Muhammed Rızā-yı Tabīb Īrānī, *ibid*, fol. 2b.

71 Paula S. De Vos, *Compound Remedies: Galenic Pharmacy from the Ancient Mediterranean to New Spain*, University of Pittsburgh Press, Pittsburgh 2023, p. 26

72 Muhammed Rızā-yı Tabīb Īrānī, *ibid*, fol. 3a-3b. For Ibn Sīnā's explanations on this topic, see. Mustafa Yavuz, *Bitki Biliminin Kök(en)leri (Şamlı Nikolaos, İbn Sīnā ve İbn Bâcce'ye Göre "Bitkiler Kitabı")*, Ötüken Neşriyat, İstanbul 2024, p. 193-201.

73 Gottfred Hagen, "Translations and Translators in a Multilingual Society: A Case Study of Persian-Ottoman Translations, Late Fifteenth to Early Seventeenth Century". *Eurasian Studies*,

physician, as mentioned above, may have sought to establish his reputation within Anatolian scholarship courts or was possibly in search of patronage by translating this esteemed work, which was well-regarded in the region. From the 16<sup>th</sup> century on, Persian held a significant position for Ottoman belles-lettres in both literature and other written domains. With the support of statesmen like Nevşehirli Damad İbrahim Paşa (d. 1143/1730), the translation of Arabic and Persian classics had intensified<sup>74</sup>. Similarly, in the fields of medicine and pharmacology, figures like Hekimoğlu Ali Paşa (d. 1171/1758) and Damadzâde Ahmed Efendi (d. 1154/1741) acted as supporters for translations from Persian in the 18<sup>th</sup> century. It is likely that Muhammed Rızâ sought to capitalize on this opportunity.

In the 18<sup>th</sup> century, Gevrekzâde Ahmed-i Sâni completed his translation of Muḥammad Mu'min's *Tuḥfat al-mu'minîn* in 1733, while Osmân b. Abdurrahmân (d. 1200/1786) finished his translation of P. Andrea Mattioli's *Commentarii* on Dioscorides's *De materia medica* in 1777<sup>75</sup>. Notably, these works were translated around the same time as Muhammad Rızâ's rendition of *Ikhtiyārât*, reflecting a broader trend of pharmacological translation efforts in this period.

As seen in other Ottoman Turkish translations, this translation also underwent a filtering process. In other words, the entire original text was not translated verbatim, and some parts were summarized<sup>76</sup>. For instance, in the section under the letter *ya*, the original work includes 22 lemmas, whereas the translated manuscript contains only 10<sup>77</sup>. Additionally, the second *maqāla* of *Ikhtiyārât*, which covers compound remedies, was not translated. The translator completed the first *maqāla* (focused on simple remedies) with a prayer and dated the manuscript, suggesting that he either chose not to translate the second *maqāla* or that the copy of *Ikhtiyārât* he had did not include the second section. This possibility is supported by the fact that some polished copies of *Ikhtiyārât* in Turkish libraries also lack the second *maqāla*. A similar filtering approach was adopted by Osmân b. Abdurrahmân, who chose

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Vol.2/No.1, 2003, p. 132-134.

74 A.C.S. Peacock, "Persian in the Lands of Rum: Texts, Translations and Courty Patronage", *Dişâr*, Vol. 5/No.2, 2024, p. 137.

75 Bedizel Aydın Zülfişar, "18. yüzyıla ait Türkçe "müfredat" kitapları ve Türk tıp tarihindeki yeri [18th century materia medica manuscripts in Turkish and its importance in Turkish medical history]", Unpublished PhD Dissertation, İstanbul University Institute of Health Sciences, İstanbul 1996, p. 216.

76 For practices of translation from Persian to Ottoman Turkish, see. Hagen, *ibid*, pp. 95-134.

77 Hâjî Zayn al-Dîn Âlî b. Hûsayn al-Ansârî, *ibid*, fol. 348a-349b.

to translate only the botanical lemmas from Mattioli's *Commentarii*, rather than the entire text<sup>78</sup>.

These translation efforts indicate that the Ottomans were actively seeking advancements in medicine and pharmacology during the 18<sup>th</sup> century. However, my focus here is not on the broader panorama of Ottoman medical sciences but rather on the trajectory of pharmacological works. Both in the 18<sup>th</sup> century and in earlier periods, the production of texts addressing the practical needs of the public became widespread in Ottoman Istanbul—likely in other imperial metropolises as well—due to the insufficiency of medical institutions such as hospitals<sup>79</sup>. Consequently, the process of producing pharmacological texts was not solely undertaken by physicians or formally trained medical professionals; rather, it also involved translators and authors who wrote in Turkish for public benefit, even if they lacked formal medical education<sup>80</sup>.

Within this diverse group, some translators, such as Hasan b. Abdurrahmān, explicitly stated that they were not physicians, while others, like Muhammad Rızā, identified themselves as such. Although little information is available about the translator of the present text, the simplicity of the language used in the translation and the deliberate simplification of certain details from Zayn-i Aṭṭār's work suggest that Muhammad Rızā's motivation for translation was not exclusively directed toward physicians or medical professionals. If a revised and finalized copy of Rızā's translation were to surface in the future and its intended recipient became clear, some of these uncertainties might be resolved. However, based on the extant draft manuscript, it is reasonable to infer that Muhammad Rızā wrote not only for physicians and professionals but also for curious readers interested in medicine or those seeking to treat themselves independently, which aligns with the practical medical culture of the time.

78 Mustafa Yavuz, "Matthioli'nin Dioscorides Tefsirinin Osmanlı'da Alınlanması", *Tabiattan Tıbbı Osmanlı'da Canlı Bilimleri*, ed. Mustafa Yavuz, Ketebe Yayınları, İstanbul 2023, p. 254-255; Zülfikar, *ibid.*, p. 203.

79 Harun Küçük, *Science without Leisure: Pratical Naturalism in Istanbul 1660-1732*, University of Pittsburgh Press, Pittsburgh 2020, p. 157-158 Miri Shefer-Mossensohn, *Ottoman Medicine: Healing and Medical Institutions, 1500-1700*, State University of New York Press, Albany 2009, p. 188-90.

80 See. Akif Erchian Yerlioğlu, "May Those Who Understand What I Wrote Remember This Humble One": Paratextual Elements in Eighteenth-Century Ottoman Medical Manuscripts", *YILLIK: Annual of Istanbul Studies*, Vol. 2, 2020, p. 46-48; See. Küçük, *ibid.*, p. 162-163.

Indeed, the underlying reason for Rızā's reluctance to translate the second *maqāla* of *Ikhtiyārāt*, which deals with compound remedies, was likely the greater sophistication of their preparation and materials. He may have considered these remedies too complex and the risk factor too high for individuals without medical training to attempt on their own.

The translator, Muhammed Rızā, largely followed the author's arrangement of lemmas and used the Arabic technical terms preferred by the author for the headings, while adding Turkish equivalents for most terms, as in the example: *isfenāj* (*spinach*), in Persian and Turkish is called *isbināk*<sup>81</sup>. However, for some lemmas whose Turkish equivalents were known at the time, such as *hırşef* (*Gundelia tournefortii*)<sup>82</sup>, the Turkish names were not included in the translation. Unlike Osmān b. Abdurrahmān or Ahmed Sānī<sup>83</sup>, the translator, did not demonstrate the same level of diligence in providing Turkish equivalents for the lemma headings

In *Ikhtiyārāt*, details such as the equivalents of plants in Greek and Hindi, as given in the lemma for *faranjmushk* (*Clinopodium graveolens subsp. rotundifolium*)<sup>84</sup>, or the various types of the plant mentioned under *āfsantīn* (*Artemisia absinthum*) (e.g., Khorasānī, Rūmī, Susī, Tarsūsī, and Nabātī)<sup>85</sup> are generally not included in *Tercume-i ikhtiyārāt*. Unlike Muhammed Rızā, Ahmed Sānī in his translation of *Tuhfat al-mu'minīn* incorporated a significant number of equivalents for remedy names in other languages and local Iranian dialects<sup>86</sup>. Similarly, Osmān b. Abdurrahmān included equivalents for remedy names in Arabic, Turkish, Bosnian, Greek, Latin, "Frankish", and even other vernacular languages in his translation<sup>87</sup>.

Regarding the content of the lemmas, objections by Zayn-i Aṭṭār to earlier authors such as Ibn al-Bayṭār and Ibn Jazla (d. 493/1100), as in the example of *āzād-dirākht* (*Azadirachta indica*) (where the author notes that its trunk and leaves are lethal to animals), are mostly omitted in the translation, with the translator limiting himself

81 Muhammed Rızā-yı Tabīb Īrānī, *ibid*, fol. 10a.

82 Muhammed Rızā-yı Tabīb Īrānī, *ibid*, fol. 87.

83 Zülfikar, *ibid*, p. 85; p. 197.

84 Ḥajī Zayn al-Dīn Alī b. Ḥusayn al-Ansārī, *ibid*, fol. 19a.

85 Ḥajī Zayn al-Dīn Alī b. Ḥusayn al-Ansārī, *ibid*, fol. 19b; Muhammed Rızā-yı Tabīb Īrānī, *ibid*, fol. 13a.

86 Zülfikar, *ibid*, p. 85.

87 Zülfikar, *ibid*, p. 185.



to conveying the author's own views<sup>88</sup>. The translator likely considered these debates unnecessary for his readers.

Although rare, there are instances where Muhammed Rızā's interpretation differs from that of Zayn-i Aṭṭār. For example, in the lemma for balsam (*belesān*), the translator writes: '*It is a famous tree in Egypt with leaves resembling mother-of-pearl leaves but white. Its oil is used. Its wood is fine, and its wood is called Ayn al-shams*'<sup>89</sup>. However, Zayn-i Aṭṭār states: '*It is a tree in Egypt with leaves resembling mother-of-pearl, but whiter. It is found more abundantly in a place called Ayn al-shams. Its oil is better and more virtuous than its seeds, and its wood is stronger*'<sup>90</sup>.

In summary, Muhammed Rızā's translation, while not a verbatim rendition of the original *Ikhtiyārāt*, conveys most of its content. In general, Ottoman translators, while translating original works, often considered it appropriate to include their own experiences or to incorporate the views of other authors. Sometimes, they even rearranged the structure of the text differently from the original<sup>91</sup>. Similarly, in *Tercume-i ihtiyārāt*, the translator diverged from the author when arranging certain lemmas. For instance, the author explained the lemma for *scolopendria* under the *alef* section, while the translator placed it under the *sīn* section, stating, '*It will be explained under the letter Sīn*'<sup>92</sup>. Although Muhammed Rızā, like Ahmed Sānī, identified himself as a physician, he did not make additional contributions to the translation as Ahmed Sānī did<sup>93</sup>.

Similarly, the medical works brought back by Hekimoğlu Ali Paşa (d. 1171/1758), upon his return from Tabriz, reached Ottoman scholars<sup>94</sup>. It was within this context that the translation of *Ikhtiyārāt*, which I am examining here, emerged through the efforts of a translator aiming to contribute to the Turkish literary corpus. However, the fact that the only surviving copy is a draft and the limited

88 Haji Zayn al-Dīn Alī b. Ḥusayn al-Ansārī, *ibid*, fol. 11a; Muhammed Rızā-yı Tabīb Īrānī, *ibid*, fol. 8a.

89 Muhammed Rızā-yı Tabīb Īrānī, *ibid*, fol. 54.

90 Haji Zayn al-Dīn Alī b. Ḥusayn al-Ansārī, *ibid*, fol. 44a.

91 This method was frequently preferred in the translation of other medical works during this century as well. For a detailed study on this topic, see: Zülfikar, *ibid*, p. 217-219; see also: Hagen, *ibid*, p. 133-134.

92 Haji Zayn al-Dīn Alī b. Ḥusayn al-Ansārī, *ibid*, fol. 13b; Muhammed Rızā-yı Tabīb Īrānī, *ibid*, fol. 9b.

93 Zülfikar, *ibid*, p. 92-96.

94 Hekimbaşı Ahmed-i Sānī, *Ghunyat al-muḥaṣṣilīn fī tarjamat Tuḥfat al-mu'minīn*, Bursa İnebey Library, Ulucami 2605, 2b.

information available about the translator makes it difficult to determine the exact motivations behind this translation.

Nevertheless, as evidenced by the examples, *Ikhtiyārāt* gained increasing interest among Ottoman scholars and became a focal point for pharmacopeial works during this period. This likely provided the translator with sufficient motivation for his work. Although the translator, Muhammed Rızā, differs from his contemporaries, Ahmed Sani and Osman b. Abdurrahman in certain aspects of his translation style and methodology, he also bears many similarities to them. In other words, *Tercüme-i ihtiyārāt* aligns well with the literary style and system of the 18<sup>th</sup> century in which it was produced.

### Conclusion

The preservation of numerous manuscript copies of *Ikhtiyārāt* in libraries across India, Iran, and Turkey, as well as its frequent references in later works, indicates that, much like in the Safavid and Mughal empires, this book significantly contributed to Ottoman pharmacopeial literature. This also suggests that the Ottomans, to some extent, carried a shared intellectual and medical legacy with the Safavid and Mughal societies over an extended period.

Although detailed information regarding the translator of *Ikhtiyārāt* remains scarce, it is noteworthy that the work was translated during the period when prominent Ottoman statesmen, such as Hekimoğlu Ali Paşa—who encouraged the translation of *Tuhfat al-mu'minîn*—and Köprülüzâde Hacı Ahmed Paşa (d. 1182/1768-69), who promoted the translation of European medical texts into Turkish, were active. However, in the absence of conclusive evidence indicating that the translator resided in Istanbul, it is not possible to assert that he sought patronage. As previously mentioned, his use of plain Turkish, his tendency to summarize rather than provide extensive details, and his selective omission of certain *lemmas* indicate that his motivation was not merely to secure patronage or to produce a text exclusively for physicians. Rather, his translation appears to have been aimed at serving the broader public interest. If the translator's primary objective was to make the widely circulated *Ikhtiyārāt* accessible to Turkish readers unfamiliar with Persian, then by completing this translation, he successfully achieved this goal.

With the growing demand for medical treatments and remedies, *Ikhtiyārāt* became a crucial reference for both Ottoman pharmacopeial authors, such as Sakızlı

Īsā, who had formal medical training and sought to compile comprehensive works, and other scholars who aimed to provide general medical and therapeutic knowledge. As previously noted, one of the primary reasons for its significance was that, through Persian-language sources, the Ottomans had access to the accumulated medical knowledge produced in Iran and India. Additionally, with the territorial expansion of the empire, the increasing proximity of the Ottomans to Iran and India—and even to China—facilitated the introduction of plants and medicinal substances from these regions into the pharmaceutical markets of cities like Istanbul and Bursa. This, in turn, created a pressing need to understand their proper use. Particularly in the densely populated urban centers of the 17<sup>th</sup> and 18<sup>th</sup> centuries, the rising demand for self-treatment led to a surge in the readership of pharmacological texts<sup>95</sup>. Indeed, the number of copies of pharmacopoeias and practical medical manuals—especially those describing simple remedies—far exceeded those of advanced medical treatises and works on medical philosophy. Furthermore, considering that not all authors and translators of these texts were exclusively physicians or individuals with formal medical training, it is evident that this demand extended beyond professional circles and into the literate segments of society. During this period, there was a growing need—particularly among consumers—to accurately identify medicinal substances, understand their appropriate methods of use, and recognize the ailments they could treat. Consequently, many works, such as Mehmed b. Alī's *Tercume-i cedīde*, emerged in response to this public demand.

Beyond its influence on pharmacopeial and medical literature, *Ikhtiyārāt* was also referenced in specialized lexicons on materia medica, such as *Risāle-i feyzīyye* and *Farā'id al-mufradāt*, as well as in general Persian dictionaries like *Farhang-i su'ūrī*. As a result, *Ikhtiyārāt* was not only regarded as a medical text but also as a significant source for Persian medical terminology within the Ottoman context.

### **Ethical Statement/Etik Beyan**

It is declared that scientific and ethical principles were complied with during the preparation of this study and all the works referred are mentioned in the bibliography./Bu çalışmanın hazırlanma sürecinde bilimsel ve etik ilkelere uyulduğu ve yararlanılan tüm çalışmaların kaynakçada belirtildiği beyan olunur.

95 Küçük, *ibid*, p. 162-166.

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