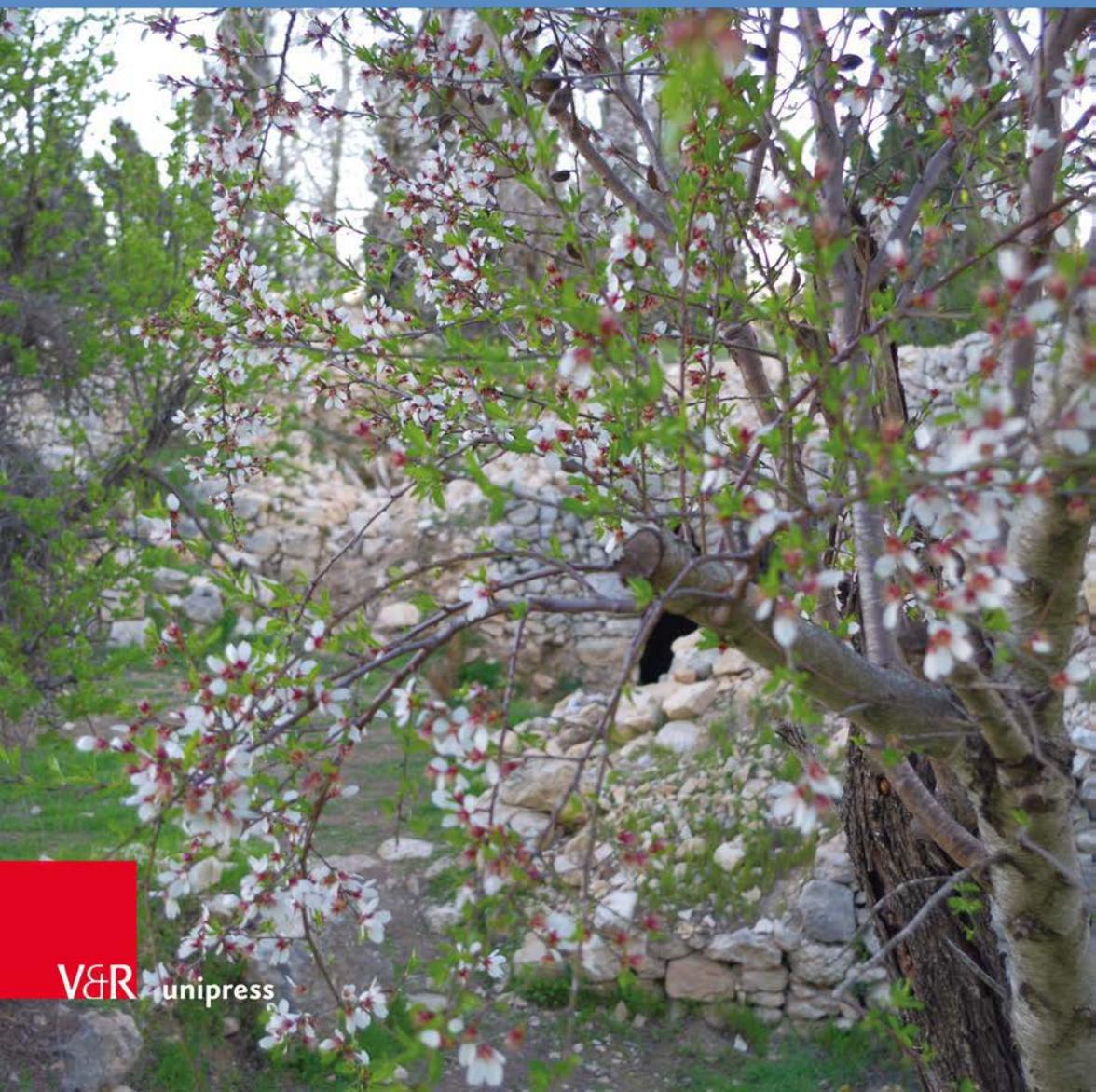


Bethany J. Walker / Abdelkader Al Ghouz (eds.)

# Living with Nature and Things

Contributions to a New Social History  
of the Middle Islamic Periods

Bonn University Press



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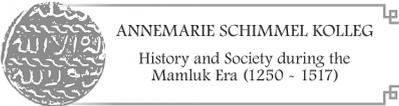


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# Mamluk Studies

Volume 23

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With 169 figures

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# Contents

## Editorial Introduction

Bethany J. Walker

Introduction: The Physical World as a Social World . . . . . 11

## Part One – Contributions to Environmental History

### Section One – Socialized Landscapes

Anthony T. Quickel

A Medieval Garden City: Mamluk Cairo’s Food Supplies and Urban  
Landscape . . . . . 33

Gül Şen

The Landscape of Southern Bilād al-Shām through the Eyes of the  
Sixteenth-Century Ottoman Cosmographer Āşîk Meḥmed . . . . . 49

Christopher Braun

Equipped with Shovels, Pickaxes, and Books: Treasure Hunters and Grave  
Robbers in Medieval Egypt . . . . . 79

### Section Two – Resource Management

Hend El Sayed

Reassessing the Building Craze in Mamluk Cairo: Meeting the Demand of  
Building Material . . . . . 103

Stefan Peychev

Water and the City: Ottoman Sofia in the Early Modern Period . . . . . 139

Chiara Corbino

Animal Husbandry and Landscape Exploitation in Mamluk Southern  
Bilād-Shām: The Evidence from Tall Hisban . . . . . 159

## Section Three – Disease and Environmental Crises

Yossef Rapoport

1068 in the Fayyum: A Micro-History of an Environmental Crisis . . . . . 181

Rachel Hoffman

The Local Ramifications of a Global Catastrophe: The Impact of the Black Death on the Mamluk Sultanate, 1341–1382 . . . . . 203

Raymond Ruhaak

An Analysis of What Fostered Resilience of the Irish Sea Area Gaels and the Bedouin of the Mamluk Frontier Leading Up to the Black Death . . . . . 221

## Part Two – Contributions to Material Culture Studies

### Section One – Complexity of Patronage

Iman R. Abdulfattah

The Complex of Qalāwūn in Cairo: Connoisseurship in Early Mamluk Architecture . . . . . 259

Muhammad Hafez Shaaban

The Curious Case of a Fourteenth-Century Madrasa: Agency, Patronage and the Foundation of the Madrasa of Umm al-Sulṭān Sha‘bān . . . . . 285

Noha Abou-Khatwa

Shaping the Material Culture of Cairo in the Second Half of the Fourteenth Century: A Case Study in the Patronage of Amir Şirghatmish al-Nāşiri . . . . . 311

Miriam Kühn

Contextualizing the Patronage of Mamluk Minbars: A Case Study of the Minbar in the Mosque of ‘Aşalbāy in Madīnat al-Faiyūm . . . . . 349

### Section Two – The Materiality of Identity

Nicolò Pini

Walls of Identities: Built Environment as a Social Marker . . . . . 375

Elisa Pruno / Raffaele Ranieri / Chiara Marcotulli

The Material Culture in Shawbak Between Crusaders, Ayyubids and Mamluks: The Case-Study of Hospitaller’s Chapel . . . . . 401

Nikolaos Vryzidis	
Islamic Material Culture in Late Byzantine and Early Modern Greek	
Contexts: Shifting Meanings and Methodological Problems . . . . .	423

### Section Three – The Materiality of Ritual

Julie Bonnéric	
Social and Cultural Interpretation of Material Culture: The Example of	
Lighting Devices in Mamluk Mosques . . . . .	453

Tobias Nünlist	
Devotion and Protection: Amuletic Scrolls Dating from the 14 <sup>th</sup> Century:	
A Contribution with Special Consideration of Is 1624 (Dublin) . . . . .	475

Bilal Badat	
“By the Pen and what they inscribe”: A Study of Pen-Related Rituals in	
Ottoman Calligraphy . . . . .	535

### Section Four – Decoding Daily Life

Warren C. Schultz	
Moving Beyond Dating: What Else Might the Presence of Mamluk Copper	
Coins in the Petra Region Represent? . . . . .	563

Gül Kale	
Stuff of the Mind: Mother-of-Pearl Table Cabinets of Ottoman Scholars in	
the Early Modern Period . . . . .	577

### Part Three – Bridging the “Gap”: Practice and Knowledge Transfer

Aleksandar Shopov	
The Vernacularization of Sixteenth-Century Ottoman Agricultural Science	
in its Economic Context . . . . .	639

Fien De Block	
Timekeeper-Teachers and their Discursive Instruments: A Material	
Approach to <i>Al-Jāmi' al-mufīd fī bayān uṣūl al-taqwīm wa-l-mawālīd</i> . . .	683

Yehoshua Frenkel	
The Contribution of European Travel Literature to the Study of the	
Environmental History of the Levant (13 <sup>th</sup> -15 <sup>th</sup> centuries) . . . . .	705

Biographies . . . . .	725
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Index of Names . . . . .	733
Index of Subjects and Places . . . . .	741

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Aleksandar Shopov

## The Vernacularization of Sixteenth-Century Ottoman Agricultural Science in its Economic Context

### Introduction

In the past three decades, scholars have challenged the view that the Islamic rational sciences, following what is commonly regarded as their heyday between the 9<sup>th</sup> and 13<sup>th</sup> centuries, entered a period of decline. In 1987, A.I. Sabra offered the first comprehensive criticism of what he termed the “marginality thesis,” which regards the rational sciences as essentially external to Islamic societies. According to this notion, science was the exclusive realm of elite Muslim scholars working under the patronage of rulers, whose works therefore had no significant impact on society and did not reflect any deeper cultural, political, or economic issues. Against one of the main postulates of the marginality thesis – that the highest institution of learning, the *madrassa*, excluded the rational sciences from the curriculum – Sabra demonstrated that rational sciences were in fact incorporated “even in religious sciences.”<sup>1</sup> Scholars who taught Islamic theology in the madrasa were not prevented from also sharing their knowledge of the rational sciences with interested students, as is noted in biographical dictionaries of scholars.<sup>2</sup> David King has discussed the presence of astronomical timekeepers at mosques and madrasas, a new professional class that emerged in some Islamic societies after the so-called “classical period” ended, another history that does not fit the marginality thesis.<sup>3</sup>

Though Arabic books on agriculture prior to the 15<sup>th</sup> century and the agricultural practices they describe have been studied in some depth, much of this

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1 A. I Sabra, “The Appropriation and Subsequent Naturalization of Greek Science in Medieval Islam: A Preliminary Statement, *History of Science*, vol.25(3), (1987), 223–243.

2 Sonja Brentjes, “On the location of the Ancient or ‘Rational’ sciences in Muslim Educational Landscapes,” *Bulletin of the Royal Institute for Inter-Faith Studies*, 4/1 (2012): 47–73.

3 David A. King, “On the Role of the Muezzin and Muwwaqit in Medieval Islamic Societies.” In *Tradition, Transmission, Transformation : Proceedings of Two Conferences on pre-Modern Science Held at the University of Oklahoma*, edited by F. Jamil Ragep and Sally P. Ragep with Steven Livesey, (Leiden, New York: E.J. Brill, 1996), 285–346.

scholarship has been circumscribed by the notion of a “golden age” that ended more or less around 1400.<sup>4</sup> Yet the north African scholar Ibn Khaldūn (d. 1406), writing at the very moment when interest in agricultural science in the Islamic world was supposedly on the wane, found it interesting enough to remark, in his *Muqaddima*, that a work by the 12<sup>th</sup>-century Andalusian scholar Abū Zakariyā Yahyā b. Muḥammad b. Aḥmad b. al-‘Awwām *Kitāb al-Filāḥa* was an abbreviated version of Ibn Waḥshīya’s *Nabataean Agriculture* – which, unlike the earlier work, was free of references to magic.<sup>5</sup> Ibn Khaldūn also notes that unlike the recent works on agriculture, of which he says there are many, the ancients’ “study of agriculture [...] was general,” discussing not only topics like planting and cultivation but also plants’ abstract properties, such as their relationship with the stars and planets. In other words, far from being on the wane, the *‘ilm al-filaha* was regarded by Ibn Khaldūn as both flourishing and changing.

This paper will explore a crucial aspect of Ottoman agricultural discourse during the early modern period: the vernacularization of agricultural books, in other words the shift from the use of Arabic as the predominant language of agricultural science into Ottoman Turkish. Situating this development within its economic and cultural context, this paper aims to contribute to an increasing historiographic awareness of the reinvigoration of the rational sciences in the Ottoman early modern period.<sup>6</sup> In the case of agriculture, a new body of knowledge emerged in the mid-16<sup>th</sup> century that was connected to new economic circumstances. Of particular interest here are two farming treatises written in

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4 For a representative example of this view, see Andrew M. Watson, “Agricultural Science,” in *Science and Technology in Islam: Technology and Applied Sciences*, part II, vol. 2, edited by A. Y. Al-Hassan, (Paris: UNESCO Pub, 2001): 38–39. “After its successive flowerings – in the eastern provinces during the ninth and tenth centuries, in Spain during the eleventh and twelfth centuries and in Yemen in the fourteenth centuries – the agricultural science in the Islamic world seems to have lost its forward momentum [...]. There were also several Turkish works written from the sixteenth to the eighteenth centuries [...]. But these works appear to have contained little or nothing that was new, relying to a large extent to earlier achievements [...]. Revival did not come until the nineteenth and twentieth centuries, with conscious policies of modernization – based on European models [...].”

5 Ibn Khaldūn, *The Muqaddimah: an Introduction to History*, translated by Franz Rosenthal (Princeton, NJ: Princeton University Press, 1967), 3:151–152. The work he refers to is Ibn Awwām’s *Book of Agriculture (Kitab al-Filāḥa)*.

6 Ekmeleddin Ihsanoğlu, “Ottoman Science in the Classical Period and Early Contacts with European Science and Technology,” in *Transfer of Modern Science and Technology to the Muslim World: Proceedings of the International Symposium on “Modern Sciences and the Muslim World”: Science and Technology Transfer from the West to the Muslim World from the Renaissance to the Beginning of the XXth Century (Istanbul 2–4 September, 1987)*, edited by Ekmeleddin Ihsanoğlu (Istanbul: Research Centre for Islamic History, Art and Culture 1992), 1–48; Khaled El-Rouayheb, *Islamic Intellectual History in the Seventeenth Century: Scholarly Currents in the Ottoman Empire and the Maghreb*. New York, NY: Cambridge University Press, 2015.

Turkish, one in Cairo and the other in Edirne. These works engage selectively with older sources, conspicuously emphasizing certain topics over others. Examining the treatises conjunctively with archival records pertaining to farming in the locations where they were written, I will argue that the production of agricultural knowledge reflected changes in the relations of agricultural production. The vernacularization of agricultural knowledge was occurring in the very Ottoman regions where these relations were undergoing the most dramatic changes, as urbanites were increasingly taking over agricultural land. The *Revnağ-ı Būstān* (Splendor of the Garden), the earliest known treatise on farming written in Ottoman Turkish, was written by an anonymous author in the mid-16<sup>th</sup> century in Edirne.<sup>7</sup> It places special emphasis on the cultivation of fruit trees and grapevines, both of which had come to dominate the landscape in and around Edirne and the broader region of Thrace. Far from simply conveying in Turkish the knowledge found in older Arabic treatises on agriculture, the *Revnağ-ı Būstān* responded to the agricultural and economic concerns of a broader readership made up of wealthy urbanites, who were increasingly interested in maintaining their agricultural investments, like the author himself. In the introduction, the author states:

“I found with the help of God near the exalted city of protected Edirne (nothing like it was created among the cities) a beautiful area distinguished on the surface of the earth, and [I] plucked the thorns from it and adorned it with roses and flowers and hyacinth and beautiful fruit trees, and there I chose to settle.<sup>8</sup> [...] While the garden was being constructed, I wished to put together a few pages with the opinions [*aḳvāl*] of the philosophers written down in the books on farming and the pearls of reason [*uḳūl*] that I heard from the people of practice and present a treatise as a beautiful gift to friends.”<sup>9</sup>

A few things here are noteworthy. First, the author claims that he was inspired to write the book “while the garden was being constructed,” drawing a metaphorical parallel between the garden and the book itself and situating the book’s creation firmly within the framework of agricultural practice. Second, the author calls his

7 Though we do not know the exact date when the book was created, its earliest copy dates to 1577.

8 “Belde-i ḫayyibe-i ‘ālī-nihād Edrene-i maḫmiyye *elleti lam-yakhlūq mithlahā fi al-bilād* ḫurbinde bi-‘avni allāhi al-malīki al-mu‘in miḡāl-ı ḫuld-ı berīn, bir cā-yı güzīn ve güzide-i ru-yı zemīn bulup ḫāk-ı pākinden ḫār u ḫāşākin yolup yerin gül ü reyāḫīn ve sūnbül ve nesrīn ve eşcār-ı meyve-i güzīn ile tezyīn edüp anda ḫarār ve temkīn iḫtiyār eyledüm.” See Önlər ed, *Revnağ-ı Būstān*, 22 and 2-B. See also Inebey Kütüphanesi, *Revnağ-ı Būstān*, ms. Haraççioğlu, no.1152, f. 1b.

9 “Ol ravza-ı cennet-i ta‘mīr olunurken kütüb-i felāḫada taḫrīr olınan aḳvāl-i ḫükemāya ittibā‘ ve ehl-i tecribeden istimā‘ eyledüğüm ‘uḳud-ı ‘uḳūl ve mücerreb-i menḫūli diledüm ki bir kaç evrāka cem‘ olunup bir risāle-i dīl-kūşā ve yārān-ı şafāya tuḫfe-i zibā ola.” Önlər, *Revnağ-ı Būstān*, Ankara: Turk Dil Kurumu, 2000, 22 and 3-B; Inebey Kütüphanesi, Bursa, ms. Haraççioğlu no. 1152, f. 2a.

treatise a “gift to friends,” imbuing agricultural knowledge with social agency. Third, he implicitly separates and juxtaposes two forms of knowledge, epistemological and practical: the “opinions” (*aḳvāl*) gained from books, and the “reason” (*‘uḳūl*) gained from practitioners.

Andrew Watson has argued that during the “agricultural revolution” he identifies as having taken place in the Islamic world between the 7<sup>th</sup> and 11<sup>th</sup> centuries, books on agriculture “played only a secondary role of popularizing practices already known to enlightened peasants and landowners.”<sup>10</sup> However, in the Ottoman context, the question of how such works rhetorically framed their content in relation to practice remains interesting. Indeed, both in the introduction and elsewhere in the work, the author of the *Revnaḳ-ı Būstān* acknowledges that it is practitioners who are the ultimate authorities on agriculture, and he emphasizes the role of firsthand experience and observation in the creation of knowledge.

The *Revnaḳ-ı Būstān* has been little studied and treated as a general horticultural work, without any regard to its particular emphases or its novelty.<sup>11</sup> This is in keeping with the lack of historiographic attention paid to agricultural change in the countryside surrounding early modern Ottoman cities, including the emergence of agricultural market specializations. Yet in the 16<sup>th</sup> century, Ottoman agricultural products were traded both regionally and globally and interacted with the commercial life of cities. For example, the countryside of Bursa – a major center of the silk trade, where silk from Iran and elsewhere arrived to be processed and sold on the market to international merchants – had by the end of the 16<sup>th</sup> century come to specialize in mulberries, which supplied the silkworms with leaves for the local production of silk.<sup>12</sup> By the 17<sup>th</sup> century, the Ottoman author Evliya Çelebi would note that the fields around Bursa were completely covered with as many as seven different varieties of mulberry trees.<sup>13</sup> Complementary to Ottoman merchants’ participation in the global trade in the 16<sup>th</sup> century – with goods such as mohair, cattle, hides, cotton, wine, and silk –<sup>14</sup> lay

10 Andrew M. Watson, “The Arab Agricultural Revolution and its Diffusion, 700–1100,” *Journal of Economic History* 34, no.1 (1974), 32. See also Andrew M. Watson, *Agricultural Innovation in the Early Islamic World: the Diffusion of Crops and Farming Techniques, 700–1100* (Cambridge and New York: Cambridge University Press, 1983).

11 Kemal Karpat, *Studies on Ottoman Social and Political History: Selected Articles and Essays* (Leiden: Brill, 2002), 333.

12 Fahri Dalsar, *Türk Sanayi ve Ticaret Tarihinde Bursa’da İpekçilik*, İstanbul: İstanbul Üniversitesi, 1960, 361, 386 doc 299.

13 Frédéric Hitzel, “Production et techniques de tissage de la soie à Bursa aux XV<sup>e</sup> et XVI<sup>e</sup> siècles,” *Rives nord-méditerranéennes* 29 (2008), 16; There is a view that dates the spread of mulberry orchards in the countryside of Bursa to the eighteenth century; see Suraya Faroḳhi, “Declines and Revivals in Textile Production,” in *The Cambridge History of Turkey*, vol. 3 (Cambridge: Cambridge University Press, 2006), 363.

14 See for example Cemal Kafadar, “A Death in Venice (1575): Anatolian Muslim Merchants Trading in the Serenissima.” *Journal of Turkish Studies* 10 (1986), 191–219.

the transformation of the Ottoman countryside. Despite this, the entire Ottoman economy is still often characterized as having revolved exclusively around provisioning Istanbul, with production and export controlled in order to provide the domestic market with goods.<sup>15</sup>

At the same time, there is a firmly rooted view that the Ottoman land regime was static and unchanging. According to this view, Ottoman agricultural knowledge and practice remained largely traditional until the late 19<sup>th</sup> century, when agricultural schools modeled on western European ideas appeared. Prior to this “modernization,” farming in the Ottoman lands was exclusively the realm of peasants, the customary tenants called *re'āyā*, whose landholdings were protected by the centralized Ottoman state. Agricultural knowledge was passed from one generation in the peasant household to another, resembling the transfer of the usufruct of the land itself. Around 1600, a change did occur in the countryside, but only in the methods of taxation: the rise of tax farming (*iltizām*) that gradually replaced military fiefdoms.<sup>16</sup> While large-scale commercial farming and trade found fertile ground in the early modern Atlantic world, it was absent from Ottoman lands, where plants from the “new” world also did not have much impact.<sup>17</sup> But was Ottoman agriculture really as exceptional as has been claimed? This paper attempts to push back against such views by treating the 16<sup>th</sup>-century vernacularization of agricultural knowledge as an Ottoman intellectual response to agricultural change – namely, the emergence of farm estates and other agricultural spaces controlled by urbanites. The formation of a Turkish vernacular discourse on farming was also part of a cultural phenomenon in which scholarly literature was being written and read by broader segments of Ottoman society. Sooyung Kim has recently studied the case of the poet Zātī (d. 1545), who was also a boot-maker, as an example of the increasing diversity of the Ottoman literary public in Istanbul, which included merchants and tradesmen and unfolded in taverns, homes, and, by the second half of the 16<sup>th</sup> century, coffeehouses.<sup>18</sup> Zātī's poetic production was by the end of his life geared towards shopkeepers and

15 Such approach has been recently criticized by Kate Fleet, “The Ottoman Economy, c.1300–c.1585,” *History Compass*, Vol.12/5 (2014), 458–9.

16 Halil Inalcik, “The Emergence of Big Farms, *Çiflik*,” in *Contributions à l'Histoire économique et Sociale de l'Empire Ottoman*, edited by Jean-Louis Bacqué-Grammont and Paul Dumont (Leuven: Peeters, 1983), 112.

17 Justin McCarthy, *The Ottoman Turks: an Introductory History to 1923* (London and New York: Longman, 1997), 221. “However, much of what was recorded then must have been generally true for earlier periods, excepting New World crops such as maize (corn) or tomatoes. Agriculture in traditional societies was by nature conservative. When in the nineteenth century, the Ottomans attempted to introduce new crops they were met with only limited success.”

18 Sooyung Kim, *The Last of an Age: The Making and Unmaking of a Sixteenth-Century Ottoman Poet* (Milton: Routledge 2017), 1.

apprentices.<sup>19</sup> Another Ottoman author working in the second half of the 16<sup>th</sup> century, Gelibolulu Muştafâ 'Alî, distinguished two Turkish languages: a high literary form that combined Turkish, Çagatay, Arabic and Persian, and a simple form of Turkish.<sup>20</sup> The new 16<sup>th</sup>-century agricultural treatises were written in the latter language. Ottoman scholars in Istanbul likewise observed and used different kinds of Arabic for their scholarly works. Aḥmad b. Muştafa Taşköprülüzâde (d. 1568) claimed, upon seeing a Turkish translation of his biographical dictionary of Ottoman scholars and mystics, that this was unnecessary, because his Arabic was already easy to understand.<sup>21</sup> Nelly Hanna has noted that in some cases, this plurality of language use can be interpreted as the result of economic developments. She has connected the rise in literacy in mid-16<sup>th</sup> century Ottoman Egypt to the revival of the Red Sea trade, which sparked a steady growth of written documents used among tradesmen and craftsmen in their daily dealings; as the sheer number of students rose, so did the production of texts dealing with issues faced by schoolteachers.<sup>22</sup> Thus, the spread of a more colloquial Arabic in Egyptian society in the early 17<sup>th</sup> century was related to the emergence of a written culture accessible to a larger number of people in Cairo.<sup>23</sup>

In addition to highlighting an episode in the history of agricultural knowledge in the Ottoman period, this paper sheds light on a number of related social, cultural, epistemological, and agricultural developments: the growing interest among various urbanites in investing in agriculture; the rise in regional agricultural specializations in the Ottoman countryside; the transformation of Turkish into a language for scholarly works belonging to rational sciences; and the emergence of an audience for such works. Moreover, all these developments were connected to a rise in consumption and trade. This is particularly true in the case of wine, which sheds light on the new vernacular farming treatise authored in 16<sup>th</sup>-century Edirne.

19 Kim, *The Last of an Age*, 4.

20 Selim Kuru, "The Literature of Rum: The Making of a Literary Tradition (1450–1600)," in *The Cambridge History of Turkey Vol. 2: The Ottoman Empire as a World Power, 1453–1603*, edited by S. Faroqhi and K. Fleet (Cambridge: Cambridge University Press, 2013), 556–557.

21 Kuru, "The Literature of Rum," 559.

22 Nelly Hanna, *In Praise of Books: A Cultural History of Cairo's Middle Class Sixteenth to the Eighteenth Century* (Syracuse, NY: Syracuse University Press, 2003), 60–64.

23 Hanna, *In Praise of Books*, 128.

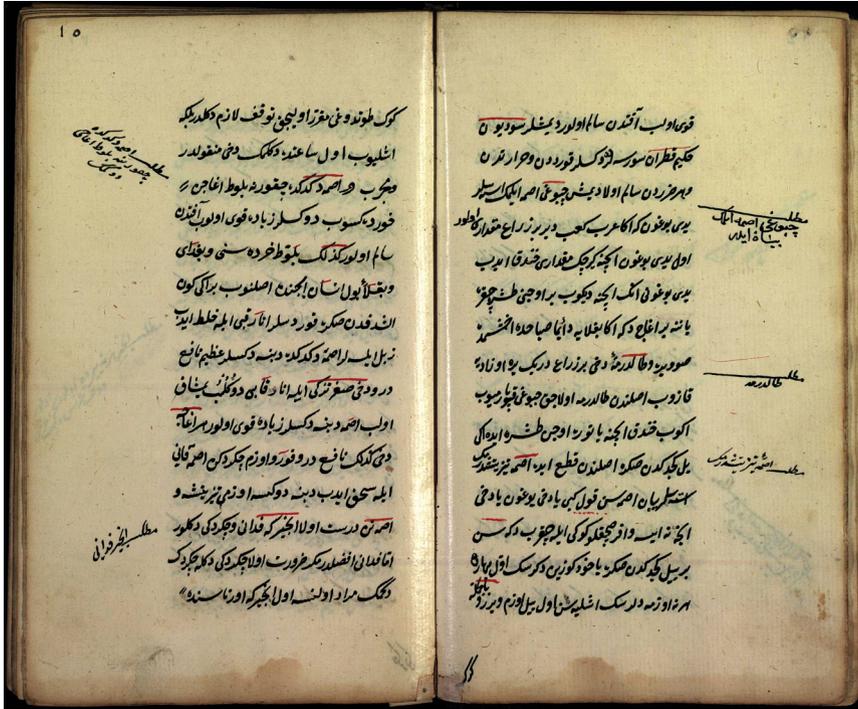


Figure 1: Pages from a sixteenth century copy of *Revnaq-ı Būstān* (Inebey Kütüphanesi, Bursa, ms. Haraççioğlu no. 1152).

## A Work of Unknown Authorship

There are at least 45 extant copies of the *Revnaq-ı Būstān* today, held in almost every major collection of Ottoman manuscripts, from Mostar to Damascus.<sup>24</sup> The oldest known copy, held in the Topkapı Palace library, dates to 1577.<sup>25</sup> Despite an obviously broad reception during its time, the *Revnaq-ı Būstān* has been little studied. The lack of an identified author has probably contributed to this, as historians have tended to focus more on works by known scholars working under the patronage of the Ottoman Palace. However, this seems to have discouraged Ottoman scholars themselves rather less. The *Revnaq-ı Būstān* is cited, for one, in the important bibliographic encyclopedia and classification of the sciences by the

24 Ekmeleddin İhsanoğlu, ed., *Osmanlı Tabii Ve Tatbiki Bilimler Literatürü Tarihi: History of the Literature of Natural and Applied Sciences During the Ottoman Period*, vol. 2 (İstanbul: IRCICA, 2006), 2:1216–1220; see also Cevad İzgi, *Osmanlı Medreselerinde İlim*, (Topkapı, İstanbul: İz, 1997), 2: 222–223.

25 Anonymous, *Revnaq-ı Būstān*, Topkapı Palace Library, İstanbul ms, H. 428.

Istanbul scholar Kâtib Çelebi (d.1657), *Kashf al-Zunûn ‘an Asāmī al-Kutub wa al-Funûn* (Removal of Doubt From the Names of Books and the Arts).<sup>26</sup> Kâtib Çelebi notes that the work was written in Turkish, that it has four chapters and was put together by some inhabitants (*sukkân*) of Edirne – suggesting, perhaps, that he understood it to have multiple authors, while also evoking the statement in the introduction that the work incorporated the “pearls of reason of [multiple] practitioners.” By the mid-17<sup>th</sup> century, in other words, the *Revnağ-ı Būstān* had become a new Ottoman classic. Its many references to two canonical works of Islamic agricultural science, the *Nabataean Agriculture* of Ibn Waḥshīya and the *Roman Agriculture* of Qastūs Ibn Iskulastīqa, demonstrate the author’s learnedness and elite status. Both of these works were held in the royal library of Sultan Bāyezīd II in Istanbul as early as 1503–4.<sup>27</sup> The *Revnağ-ı Būstān* shows the afterlife of these works in an emerging vernacular Ottoman discourse on farming.

The introduction is peppered with Arabic phrases; for example, “nothing like it was created in all countries” (*al-latī lam yukhlaq mithluhā fī al-Bilād*).<sup>28</sup> The introduction to the *Revnağ-ı Būstān* also includes Turkish verse, suggesting that the author belonged to an elite, highly educated social group. An entry in the 1553 court records of Edirne indicates that some scholars who were contemporaries of the author of the *Revnağ-ı Būstān* were indeed establishing agricultural spaces around the city. Among the possessions of one Muştafā Çelebi bin Āğācūk, who died in 1552–3, the judge records “five plots of vineyards” alongside objects such as pots, plates, marble stones, and 136 books and treatises in Turkish, Arabic and Persian.<sup>29</sup> The inventory states that Muştafā Çelebi died “near Constantinople” (*belde-i Konstantīniyye*) but had formerly lived in the Yıldırım neighborhood of Edirne. The sizes of the vineyards are not specified, and their prices are relatively low, suggesting that they may have been planted only recently. A similar case is that of Muştafā Çelebi b. Hoşkadem, the superintendent (*ketḥūdā*) of the market in Edirne, who died that same year. A court entry made by the judge of Edirne in 1553 lists, at the top of his properties, an orchard (*bāğçe*) worth 8,300 akçe and a vineyard (*kerm*) worth 1405 akçe.<sup>30</sup> The orchard was located near *Mihāl* – the bridge of Mihal, west of the city. It is worth noting that the value of Muştafā Çelebi’s orchard was larger than that of the 7,000-akçe house in which he lived.

26 Kâtib Çelebi, *Kitāb Kashf al-Zunûn ‘an Asāmī al-Kutub wa al-Funûn/li-Kâtib Chalabī*, vol. 2 (Istanbul: Maḥba‘at al-‘Ālam, [1892–1894?]), 203.

27 Aleksandar Shopov, “‘Books on Agriculture (*al-filāḥa*) Pertaining to Medical Science’ and Ottoman Agricultural Science and Practice around 1500.” In *Treasures of Knowledge: An Inventory of the Ottoman Palace Library (1502/3–1503/4)*. Muqarnas Supplements 14. Edited by Gülru Necipoğlu, Cemal Kafadar and Cornell H. Fleischer, 557–569. Leiden: Brill, 2019

28 Önler, *Revnağ-ı Būstān*, 22.

29 Başbakanlık Osmanlı Arşivi (hereafter BOA), MŞH.ŞSC.d. 3872, ff. 13a–14a.

30 BOA, MSH.ŞSC, D. 3872, f. 10b.

The only item in the inventory more valuable than the orchard was a grocery store (*dükkân-ı bakkâlîye*), listed after the vineyard with a value of 13,383 akçe. Vineyards and orchards around Edirne seem to have played a role in the accumulation of wealth by the city's ruling elite. Knowledge about agriculture, and specifically about cultivating grapevines and fruit trees, would have been appealing to this same group.

Others who would have formed a readership for agricultural treatises in the 16<sup>th</sup> century included the gardeners and other administrators of royal properties in Edirne, which had been the Ottoman capital city until the conquest of Constantinople in 1453. In the centuries that followed, Edirne was an alternating residence for the Ottoman sultans and never quite lost its importance since it was located on major military and trade routes. Aḥmed Beg, the head gardener of the New Garden (*Yeni Bağçe*) in the Royal palace in Edirne, owned a farm estate (*çiftlik*) in the village of Daye Hâtûn worth a whopping 200,000 akçe.<sup>31</sup> In addition to a barn, stable, water well, residence, two slaves, various animals and large quantities of wheat, barley, millet and oats, the farm estate also had a vineyard measuring 12 *dönüm* or approximately 11,000 square meters. The administrator of the Royal Palace in Edirne, Ismail Ağa, owned a rose garden and an orchard with cherry and other fruit trees – along with a stable, a barn, three houses, and two water wheels – in the village of Maraş, just a few kilometers southwest of the city.<sup>32</sup> He sold the property to a certain Hâlîl Beg for 28,000 akçe.

Ömer Lütfi Barkan has used inheritance records between 1545 and 1659 to show that orchards, vineyards, and farm estates were established during this period in the villages around Edirne.<sup>33</sup> He has also demonstrated the transfer of the usufruct of agricultural land from the customary holders (*re'āyā*) to urbanites and members of the military class.<sup>34</sup> Such agricultural spaces produced for the market: some involved large cattle operations, others produced grain, and still others – a few of which Ömer Lütfi Barkan cites – included rose gardens, orchards, and vineyards. An unpublished survey made in 1557–8 of the 27 villages in the Edirne district controlled by the Islamic charitable foundation of Sultan Bāyezîd II tells us still more about the involvement of Edirne's urbanites in the city's immediate countryside. The surveyors record 116 farm estates (*çiftlik*) in the district. Many of the persons recorded as controlling *re'āyā*'s, units of land or *çift*, have administrative, scholarly and military titles, such as *Beg*, *Çelebi*, *janissary*, or *Hâtûn* (noble-woman).<sup>35</sup> Let us recall that the author of the *Revnaḳ-ı*

31 Ömer Lütfi Barkan, "Edirne Askerî Kassam'ına Âit Tereke Defterleri (1545–1659)," *TTK Belgeler* 3, no. 5–6 (1966), 50–51.

32 Barkan, "Edirne Askerî," 51.

33 *Ibid.*, 47–58.

34 *Ibid.*, 47–58.

35 BOA, TT.d. 306, ff. 32–52.

*Būstān* specifies the “vicinity” of the city as the location where his garden was established. Closer to the city, in villages such as Kadı and Hacı Timurhan, the surveyors recorded more *çiftliks* than the average for the rest of the district.<sup>36</sup> Learned urbanites were indeed establishing agricultural spaces near the city, as the author of the *Revnağ-ı Būstān* claims to have done. Many of these spaces included orchards and vineyards, which, as we will see, the work treats in particular depth. The involvement of urbanites in the countryside is also attested elsewhere in Thrace, where by 1545, as the present author has demonstrated, much of the usufruct of the land belonging to the sultanic charitable foundation of Mehmed II near Istanbul had been transferred from peasants to members of the military class, including scholars and wealthy women.<sup>37</sup>

The author’s brisk description of how he settled the land, as if it was simply a matter of “plucking thorns,” belies a more complex reality. To obtain a lease contract from the administration of a sultanic charitable foundation or a fiefholder of state land, or to purchase land that had the status of a private holding (*mülk*), required significant expenses and political connections. A readership on farming and land improvement seems to have been growing in Edirne, Istanbul, and other cities in Thrace located along major trade and military routes leading to the Balkans and central Europe. Farm estates were typically established on land close to major rivers such as the Meriç, Tunca or Arda. Goods from Edirne, including agricultural produce, were shipped along the river Meriç, which flowed to the Aegean Sea. In the 1550s, the French diplomat and naturalist Pierre Belon reported that on the northern shores of the Aegean, at the mouth of the Struma river, Ragusan and Venetian ships were selling merchandise and loading wheat, wools, and hides.<sup>38</sup> Commercial farming operations were also established close to the Marmara Sea, which connected the Black Sea and the Aegean through the Bosphorus and the Dardanelles.<sup>39</sup> Such a location allowed agricultural products to be shipped easily to Istanbul, but also farther, to markets in northern Europe and the Mediterranean.

A popular Ottoman book on ethics written in the 1560s, *Ahlāk-ı ‘Alā’ī* (On Good Manners), warns its readers about the danger of city-dwellers (*ehl-i medīne*) investing in the “villages and countryside” (*ķura ve saķārī*) and “taking over” (*ittihaz*) “properties and fields” (*‘aķār ve mezārī*) there. Its author, the Ottoman scholar and bureaucrat Kınalızāde ‘Alī (d.1571), conveys the danger

36 Seven farm estates in Kadı and thirteen in Hacı Timurhan Ibid., ff. 35 and 36.

37 Aleksandar Shopov, “Between the Pen and the Fields: Books on Farming, Changing Land Regimes, and Urban Agriculture in the Ottoman Eastern Mediterranean ca. 1500–1700” (PhD diss., Harvard University, 2016), 123–124.

38 Bistra A. Cvetkova, “Vie Economique des Villes et ports Balkaniques aux XVe et XVIe Siècles,” *Revue d’Etudes Islamiques* 38 (1970), 322.

39 Shopov, “Between the Pen and the Fields,” especially chapters 1–3.

with an Arabic etymology: “Some of those with experience” (*ehl-i tecribeden bazı*), he says, claim that the Arabic word *ḍay‘a*, meaning “village” (*ḳarye*), comes from *zīyā*, the meaning of which those familiar with Turkish and Arabic would have recognized as “increasing.” However, Kınalızāde ‘Alī warns that “if you are constantly taking care you will not lose [but] if you are not engaged constantly [your properties and fields] will perish [*zāy‘i olur*].”<sup>40</sup> Offering its readers instructions for the continual maintenance of their investments in the countryside, the *Revnaḳ-ı Būstān* answers Kınalızāde ‘Alī’s warnings.

Prominent members of the Ottoman government indeed found a retreat in the countryside, as noted by Ottoman sources. In the 1540s, the grand vizier Lütü Pāşā retired to a farm estate (*çiftlik*) in a village near Edirne.<sup>41</sup> Other viziers from this period who lost popular support were ordered to retire to their estates in the countryside of Istanbul.<sup>42</sup> The political and cultural orientation towards the countryside is attested in the works of the royal architect Mimar Sinan (d.1588), who constructed several agricultural estates near Istanbul for grand viziers and viziers such as Rüstem Pāşā, Semiz ‘Alī Pāşā, and Meḫmed Sokollu Pāşā.<sup>43</sup> These were not only retreats from the congested and plague-ridden city, but also sites where agricultural production was organized by these well-to-do urbanites. In many cases, such farm estates included buildings related to agricultural production. The farm estates (*çiftlik*) of the grand vizier Rüstem Pāşā (d. 1561), located west of Istanbul, had six rooms for “farmers” (*çiftçi*). From a court entry recording the sale of a farm estate in 1594–5, we learn that his daughter, Ayşe Sultan, earned a whopping 160,000 aḳçe from the sale of the built structures on her father’s farm, including stables for oxen and horses, a barn, a water fountain, and a ruined bathhouse. Such farm estates made use of both wage laborers – as Ömer Lüfti Barkan has shown<sup>44</sup> – and slaves. The grand vizier Rüstem Pāşā (d. 1561) endowed to his charitable Islamic foundation a farm estate in the Hayrabolu district in Thrace with 40 slaves who were employed in the upkeep of 400 water buffalo and 200 oxen. In the Thracian district of Ipsala, on the shores of the Aegean Sea, Rüstem Pāşā endowed a large area of meadows with 5,000 sheep. In the coastal district of Iznikmid in northwestern Anatolia, he endowed a farm with

40 Kınalızade Ali Çelebi, *Ahlāk-ı Alâî*, edited by Mustafa Koç (İstanbul: Klasik, 2007), 340.

41 Yaşar Yücel, *Osmanlı Devlet Teşkilâtına Dair Kaynaklar; Kitâb-I Müstetâb; Kitabu Mesâlihi’l Müslimîn Ve Menâfi’i’l-Mü’minîn; Hirzül-Mülûk* (Ankara: Türk Tarih Kurumu Basımevi, 1988), 20–21.

42 Gülru Necipoğlu, “The Suburban Landscape of Sixteenth-Century Istanbul as a Mirror of Classical Ottoman Garden Culture.” In *Theory and Design of Gardens in the Time of the Great Muslim Empires*, edited by Attilio Petruccioli, Leiden; New York: E.J. Brill, 1997, footnote 53.

43 Necipoğlu, “The Suburban Landscape,” 41.

44 Barkan “Edirne Askeri,” 47–58.

23 slaves. In addition, other kinds of agricultural lands such as orchards were endowed to his charitable foundations throughout Anatolia, Syria and Egypt.<sup>45</sup>

## A Work Created in Edirne

*Revnağ-ı Būstān* was thus an expression of the aspiration of the 16<sup>th</sup>-century gentleman-farmer in Edirne and the wider region of Thrace. The relatively short length of the oldest copy of the *Revnağ-ı Būstān* – today in the Topkapı Palace library – at 56 folios, indeed suggests it as an abbreviated treatise that was easy to move and transport, perfect for a landowner moving between Edirne and its countryside.

Moreover, that the author specifies the location where the treatise was written is striking. Such a localization is not seen in earlier Arabic and Persian farming treatises, which convey general agricultural rules and methods.<sup>46</sup> The statement of the anonymous author of *Revnağ-ı Būstān* that he wrote the work “while [his] garden was being constructed” situates the work even more concretely within an agricultural space. This is supported by the references made throughout the work to the authority of agricultural practitioners. An example is found in the third chapter, which details the methods for pruning different varieties of grapes – the only fruit for which different varieties are specified. The text recommends one pruning method for *razaķī* and *kadın barmağı* (“lady’s finger”) grapes, and another for all other grape varieties. The degree of pruning needed depends, the text notes, on the strength of the cane (*çubuğ*) or maturity of the shoot. As such, a stronger cane should be pruned more to encourage the growth of more buds, while a weaker one should be pruned less so that the cane does not have to bear the weight of too many buds.<sup>47</sup> We then find an intriguing remark: “but one should observe how someone does it [the pruning].”<sup>48</sup> Despite its author’s obvious erudition, the *Revnağ-ı Būstān* also displays an understanding of farming

45 Aydın Yüksel, “Sadrazam Rüstem Paşa’nın Vakıfları,” in *Ekrem Hakkı Ayverdi Hatıra Kitabı* (Istanbul: İstanbul Fetih Cemiyeti 1995), 236–251.

46 An exception is *Buğhyat al-Fallāhīn fī al-Ashjār al-Muthmira wa al-Rayāhīn* (The Farmers’ Object of Desire in regard to Fruit-Bearing Trees and Aromatic Plants), written in Yemen in the second half of the fourteenth century by the Yemenite sultan Al-Malik al-Afḍal al-‘Abbās. It focuses on plants grown in Yemen. Al-Malik al-Afḍal al-‘Abbās even discusses an experiment his father made in 1330 in which he planted rice in the garden and replanted it from seeds, a method described in detail in the text. See R. B. Serjeant, “The Cultivation of Cereals in Medieval Yemen,” *Arabian Studies* 1 (1974), 25–74; *Buğhyat al-Fallāhīn fī al-Ashjār al-Muthmira wa al-Rayāhīn*, Topkapı Saray Kütüphanesi, Istanbul, A. 2432, ff. 137a–137b.

47 Önler, *Revnağ-ı Būstān*, 42.

48 *Ibid.*, 42.

as a form of embodied knowledge: the people who know it are the people who *do* it, and you must learn by watching them.

The work's four chapters are divided according to the following topics: the classification of soil, the planting of trees, pruning and grafting, and diseases and cures. This is followed by an "appendix" (*tetimme*) on planting watermelon, cantaloupe, squash, and cucumber in a vegetable garden (*būstān*) and on the cultivation of flowers such as roses, carnations, and violets, with a note on how to plant flowers with bulbs.<sup>49</sup> An epilogue (*hātime*) briefly discusses methods of harvesting and preserving fruits.<sup>50</sup> Three of the four chapters begin with discussions of grapevines, a subject that also dominates the content throughout. Grapevines are a central concern of the first chapter. Here the author describes a "rule" (*kā'ide*) for determining whether soil is suitable for planting vineyards and fruit trees.<sup>51</sup> He advises his readers to dig a pit, one *zīrā'* deep (about three quarters of a meter): first, he says, take soil from the bottom and place it in a bottle with water, then strain the water through a delicate textile, and finally, drink the water. If the water is sweet and has no odor, grapevines and fruit trees can be planted in that soil. If it has an odor but no taste, then the soil is unsuitable for this purpose. Though even this is not a final verdict, as the author notes that soil can be amended by adding sand or manure.<sup>52</sup>

The *Revnağ-ı Būstān* emphasizes the agricultural concerns local to Edirne, where much of the landscape was dominated by vineyards and orchards. In the spring of 1568, a series of government orders were sent from Istanbul to the judge in Edirne.<sup>53</sup> In an urgent tone, the orders prescribe that the orchards, vineyards, and watermills built along the river Tunca, as well as the poplar trees planted along it, should be removed with the oversight of the city's "knowledgeable people" (*ehl-i vukuf*).<sup>54</sup> These structures and trees were obstructing the flow of water and thus increasing the danger of flooding. The river Tunca, which collects water from the Balkan mountain range and the southwestern mountainous corner of the Black Sea region, flows south just outside the western edge of the city before flowing into the river Meriç, which flows into the Aegean Sea. Records show that by the mid-16<sup>th</sup> century, many of Edirne's elite citizens – bureaucrats, scholars, and other members of the *'askerī* or military class – indeed owned vineyards near the city. In 1557–8, the aforementioned village of Hac Timurhan

49 Ibid., 55–58.

50 Ibid., 58–61.

51 Ibid., 24.

52 Ibid., 24.

53 BOA, A.DVNSMHH.d, no.7, 495/1428; A.DVNSMHH.d, no.7, 589/1655 and A.DVNSMHH.d, no. 7, 589/1656.

54 BOA, A.DVNSMHH.d, no.7, 495/1428; A.DVNSMHH.d, no.7, 589/1655 and A.DVNSMHH.d, no. 7, 589/1656.

(now Demirhan), located a few kilometers east of Edirne and endowed to the *waqf* of Bayezid II, yielded 473 *ağçe* as tax from its vineyards.<sup>55</sup>

An inheritance inventory drawn up in 1546 in the court of Edirne for a certain Manol, from the Edirne neighborhood of Aya Dimitri, records 60 *dönüm* (about 5.5 hectares) of land near the city, all of it planted with grapevines.<sup>56</sup> Manol's vineyard was valued at an enormous 40,000 *ağçe*. According to the income records from 1564–5 for the royal gardens in Edirne, there were vineyards planted near the palace of Süleymân Pâşâ in Edirne. 238 *dönüm* of vineyards in the area around the palace were owned by Muslims, who paid four *ağçe* per *dönüm*, while 126 *dönüm* were owned by Christians, who paid six *ağçe* per *dönüm*.<sup>57</sup> The total area of the vineyards was equivalent to around 30 soccer fields. The economic importance of viticulture to Edirne is also seen in the income records of the charitable foundation of Bâyezîd II in Edirne, which controlled and leased most of the land around the city. The complex of the foundation, located west of the city, had been created at the end of the 15<sup>th</sup> century and housed a medical college.<sup>58</sup> In 1528–9, the foundation collected from “the vineyards of Edirne” (*bâğât-ı Edirne*) a total of 76,120 *ağçe*.<sup>59</sup> The 1502 law code of Edirne indicates that there was already a fairly developed market by then for different varieties of grapes. The *râzâkî* and the red grapes cost one *ağçe* for 800 grams; the *şediye* grape was one *ağçe* for 900 grams; and the black grape was one *ağçe* for 1250 grams.<sup>60</sup> The law code specifies that this last, “black grape” was used for making *sherbet* (sweet fruit drink).<sup>61</sup> It also records the price of *pekmez*, a jam made from grapes, as well as vinegar.<sup>62</sup> In addition to grapes, different varieties of apricots, plums, and other fruits – even hazelnuts from as far as Trabzon on the Black Sea – are also recorded as having been sold on the market in Edirne.<sup>63</sup> This regulated and differentiate pricing for produce appears in the records shortly after the earliest known record of the practice of “farming out” the collection of taxes on the sale of fruits in the market, which dates to 1485.<sup>64</sup>

55 BOA, TT.d. 306, f. 35.

56 Barkan, “Edirne Askerî,” 90.

57 BOA, TSMA, D. 5341, f. 1.

58 Câhid Baltacı, *XV-XVI. Asırlarda Osmanlı Medreseleri* (İstanbul: M.Ü. İlahiyat Fakültesi Vakfı Yayınları, 2005), 760; and Kazancıgil, *Edirne Sultan 2. Bayezid Külliyesi* (İstanbul: Bizim Ülke Derneği Yayınları, 1988), 38.

59 M. Tayyib Gökbiçgin, *XV.-XVI. Asırlarda Edirne ve Paşa Livâsı: Vakıflar, Mülkler, Mukataalar* (İstanbul: Üçler Basımevi, 1952), 357–379.

60 Ömer L. Barkan, “Kanunnâme-i İhtisâb-ı Edirne.” *Tarih Vesikaları* II, no. 9 (1942), 171.

61 *Ibid.*, 172.

62 *Ibid.*, 172.

63 *Ibid.*, 172.

64 Gökbiçgin, *XV.-XVI. Asırlarda Edirne ve Paşa Livâsı*, 104.

Edirne's specialization in viticulture is also reflected in literary works from the second half of the 16<sup>th</sup> century. 'Aşık Meḫmed, whose "Views of the World" (*Menâzîrû'l-Avâlim*) was based on his travels throughout Ottoman lands between the 1570s and 1590s, describes a vast area of vineyards spreading from Edirne to its south.<sup>65</sup> The description comes directly after a passage in which 'Aşık Meḫmed marvels at the beautiful silhouette of the newly built mosque of Selîm II (r.1566–76): the vineyards, he says, are "infinite" (*bî-girân*), stretching for *ferâsiḫ der-ferâsiḫ*, an expression that means something like "miles and miles." In 1611, a contemporary of 'Aşık Meḫmed, the Polish-Armenian merchant Simeon of Poland, would similarly claim that Edirne's gardens and vineyards "completely surround the city up to half a day's journey. It is a commercial town, a city of merchants lauded by all."<sup>66</sup> Viticulture was also a specialty in the countryside of Istanbul. In his biographical dictionary of Ottoman poets, completed in 1568, the Ottoman biographer and poet Aşık Çelebi (b.1520-d.1572), in the middle of an entry on the poet Deli Birader suddenly starts discussing a friend of the poet, "the vinegar-maker Bahşi" (*Sirkeci Bahşi*). Bahşi gave up his scholarly pursuits in order to plant a vineyard and an orchard in Beşiktaş, – north of Istanbul – make vinegar in a vinegar processing facility, and sell it to the Ottoman navy whose reach in the mid-16<sup>th</sup> century encompassed ports between the Indian Ocean and France.<sup>67</sup> Ottoman merchants were also shipping vinegar to the northern Black Sea ports. Vinegar was traded by Bahşi's contemporaries: in 1505, the Armenian merchant Murad delivered 680 akçe worth of vinegar to the northern Black Sea port of Akkirman, where he paid 27.45 akçe to the Ottoman customs officials.<sup>68</sup> Ottoman Christian and Muslim merchants whose ships arrived from Istanbul and Balıklago (in Crimea) to Akkirman that same year delivered two barrels of vinegar worth 1,930 akçe, a value that exceeded the customs revenues from olive oil and rose water combined.<sup>69</sup> City people like Bahşi drew their wealth not just from agricultural production, but from knowledge related to it. According to 'Aşık Çelebi, Eḫşâncı Meḫmed (d.1534–1535), a former clerk in the inner treasury, established an orchard in Istanbul where he grew exquisite flowers for the market.<sup>70</sup> Eḫşâncı's flowers became so valuable that he exchanged them for gold coins. He also gave them names, creating new signature

65 Mehmed Aşık, *Menâzîrû'l-Avâlim*, edited by Mahmut Ak (Ankara: Türk Tarih Kurumu Yayınları, 2007), 3:1108.

66 Dpir Lehats'i Simëon, *The Travel Accounts of Simëon of Poland*, (Costa Mesa, Calif.: Mazda Publishers, 2007), 69.

67 Aşık Çelebi, *Meşâ 'irü'ş-Şu 'arâ*, 3:1642–3.

68 Kerim Ilker Bulunur, "Osmanlı Donemi Karadeniz Ticaret Tarihine Katkı: Akkuran Gümrüğü (1505)," in *Omeljan Pritsak Armağanı*, edited by Mehmet Alpargu and Yücel Öztürk (Sakarya: Sakarya Üniversitesi Basımevi, 2007), 546.

69 Ibid., 557.

70 Aşık Çelebi, *Meşâ 'irü'ş-Şu 'arâ*, 2: 999.

varietals. ‘Aşık Çelebi also claims that Efşāncı employed a grafting technique called budding, in which a bud from a desired tree – as opposed to a twig – is inserted beneath the bark of a stock plant.<sup>71</sup>

Knowledge about agriculture was intertwined with the hope for profit. As cities that were in close proximity to vineyards and also hubs of trade, Istanbul and Edirne each played a significant role in the global trade of wine and other commodities made from grapes. Although Aşık Çelebi characterizes Baḥşî’s story as a humorous novelty, Baḥşî the poet-turned-vinegar-maker was hardly exceptional in his time. There are other documented cases of scholars and bureaucrats establishing vineyards on the outskirts of Istanbul. The village of Beşiktas, where Baḥşî planted his vineyards, belonged to the charitable foundation of Bāyezīd II in Istanbul, which was established in 1505 and controlled more than 100 villages in the district bordering the city. The “vineyards of Istanbul” are first recorded in the endowment deed of this foundation.<sup>72</sup> The administration collected taxes from this complex of vineyards throughout the 16<sup>th</sup> century.<sup>73</sup> Planted facing southwest, the vineyards were located just outside Istanbul’s land walls near Edirne gate, where the road to Edirne began. The 1505 endowment deed (*waqfiyya*) of Bāyezīd II names the vineyards’ owners, which included urban elites such as Maḥmūd Naḳḳāş, Bāyezīd Bāyezīd Çelebi, and the vizier Dāvud Pāşā (d.1498).<sup>74</sup> The latter’s vineyard was part of a large landholding located along the road between Istanbul and Edirne.

The marketplace of another major Ottoman city, Bursa in northwestern Anatolia, illustrates the importance of fruits in trade and consumption. A legal code records 13 varieties of pears sold on the market on Bursa.<sup>75</sup> The code is dated, like the previously discussed one for Edirne, to 1502. It lists the prices somewhat chronologically, with an initial listing of prices for when a varietal first appears on the market, followed by a price for several days later, and a third for the end of the season. The “sugar pear,” whose name obviously indicates sweetness, was one of the most expensive of all pear varieties. In the first five days of its arrival on the market, 960 grams (300 *dirhem*) worth were sold for one aḳçe; five days later, the price was 1,600 grams for one aḳçe, and at the end of the season, 1,920 grams for one aḳçe. Another variety, “mace pear,” was likely named for a military mace, which it resembled in shape. Its price was slightly lower: when it first appeared on the market, 1,280 grams for one aḳçe; three days later, 1,920

71 *Ibid.*, 2:999.

72 Vakıflar Genel Müdürlüğü Ankara, D. 1375, ff. 47.

73 “The vineyards of Istanbul” in 1620–21 yielded 16,362 aḳçe in rents. See BOA, Maliyeden Müdevver, no. 5631; Said Öztürk, *Osmanlı Arşiv Belgelerinde Siyakat Yazısı ve Tarihi Gelişimi* (İstanbul: Osmanlı Araştırmaları Vakfı yayınları, 1996), 220–221.

74 Vakıflar Genel Müdürlüğü Ankara, D. 1375, ff. 47–50.

75 Ömer Lütfi Barkan, “Kanunnâme-i İhtisâb-ı Bursa,” *Tarih Vesikaları* II, no. 7 (1942), 19–20.

grams for one *ağçe*; then 2,560 grams for one *ağçe*; and at the end of the season, 5.1 kilograms for one *ağçe*. Early arrivals could thus be more than double the price of older ones. The systematization of prices would have incentivized the creation of new varieties that could arrive early on in the market, further encouraging specialization in agricultural production. The creation of new varieties with specific characteristics would have made knowledge about grafting, the subject of one of the four chapters of *Revnağ-ı Būstān*, highly useful. The case of apples in Bursa's market also reflects the rise of long-distance trade in fruits. Alongside the significant local production of apples, two varieties were imported to Bursa from as far as Akşehir, a town in central Anatolia some 360 kilometers to the southeast. The price of these apples was measured by camel loads.<sup>76</sup> The class that would have been interested in purchasing expensive varieties of fruits was the same one whose members were establishing orchards and vineyards around Ottoman cities.

In addition to viticulture, the *Revnağ-ı Būstān* emphasizes the cultivation of flowers, which was another agricultural specialty of Edirne. Found in the work's appendix (*tetimme*), this discussion starts with roses.<sup>77</sup> The author explains how to plant roses in two different ways: from a cutting and by the roots. For the latter, he advises mixing some soil with old manure and setting the mixture in the rose-planting bed. He says that roses can be planted any time of year, except during extreme cold or in August, i. e. in extreme heat. Edirne would very soon become famous for its roses and rose water, a local specialty reflected in narrative sources. The earliest known history of the city, *Enîs-ül Mūsâmîrîn*, written in the first half of the 17<sup>th</sup> century, and the *Cihannüma*, a mid-17<sup>th</sup>-century geographical work, both note that roses are an Edirne specialty.<sup>78</sup> Documentary sources confirm this. In 1587, the Ottoman state council ordered an unspecified number of rose saplings (*gül fidân*) for the Old Palace in Istanbul, which had a large garden.<sup>79</sup> The head of the janissary corps (*bostāncıbaşı*) in charge of the security of Edirne was ordered to dispatch these saplings on horses, and to avoid any delay in the shipment. Six years later, in 1593, the government ordered 400 *kañtâr* (about 513 kilograms) of red rose saplings and 300 *kañtâr* (about 385 kilograms) of *sakız*

76 Barkan, "Kanunnâme-i İhtisâb-ı Bursa," 20.

77 Önler, *Revnağ-ı Būstān*, 57.

78 Tayyib Gökbilgin, "Edirne Hakkında Yazılmış Tarihler ve Enîs-ül Mūsâmîrîn," in *Edirne: Edirne'nin 600. Fetih Yıldönümü Armağan Kitabı* (Ankara: Türk Tarih Kurumu Basımevi, 1993), 111 and Hamit Sadı Selen, "Yazma Cihannümaya Göre Edirne Şehri," in *Edirne: Edirne'nin 600. Fetih Yıldönümü Armağan Kitabı* (Ankara: Türk Tarih Kurumu Basımevi, 1993), 309.

79 Ahmed Refik, *On Altıncı Asırda İstanbul Hayatı (1553–1591)* (İstanbul: Devlet Basımevi, 1935), 12.

rose saplings.<sup>80</sup> These saplings were to be sent from Edirne to Istanbul to be planted in the royal gardens, most likely the ones of the Topkapı palace and along the shores of the Bosphorus. Both orders were placed in the month of Dhū al-Ḥijja, which in those years fell in August and September, indicating that the roses were to be planted early in the fall – in keeping with the advice given in the *Revnaḳ-ı Būstān*. The strict direction in the 1587 order not to delay the shipment may suggest knowledge about the need to plant the roses during a particular time of the year. The distance between Istanbul and Edirne is 230 kilometers and the transport would have lasted approximately one week. That the *Revnaḳ-ı Būstān* was written during a time when plants were increasingly on the move is no accident; such mobility required new forms of knowledge.

Roses were grown in the newly established farm estates near Edirne, precisely the kind of place where the *Revnaḳ-ı Būstān*, according to its author, was written. An example is found in the inventory of the possessions of Bekir Beşe, a janissary who died in 1607 in the village of Kara Ağaç near Edirne. Bekir Beşe loaned extensively to Christians and Muslims in the village and accumulated fields from a number of peasants and from the charitable foundation of Yıldırım Ḥān, most likely in return for unpaid debts. Bekir Beşe owned several vineyards, draft animals, a facility for threshing grains, and a rose garden that was valued at 20,000 aḳçe. The roses alone yielded an income of 2,000 aḳçe.<sup>81</sup> A contemporary of Bekir Beşe, a goldsmith from Edirne named Sünbül Ḥasan b. Ḥüseyn, who died in 1604, left among his properties gold, silver, numerous tools, jewelry, a house, an orchard, and a vineyard worth 50,000 aḳçe, as well as three cauldrons for making rosewater worth 1,000 aḳçe and 14 rosewater kettles worth 14,000 aḳçe.<sup>82</sup> Aside from the jewelry, Sünbül Ḥasan was clearly running a rosewater operation.

Regional agricultural concerns appear to have shaped not only the focus of the *Revnaḳ-ı Būstān* but also its use of sources. In the second chapter, which discusses methods for planting various trees, the author twice quotes the 6<sup>th</sup>-century Byzantine author Cassus Bassianus, known through Arabic translations of his work as Qaşṭūs ibn Iskūlastika. Qaşṭūs is cited as an authority on the optimal season for planting grapevines: “Qaşṭūs the philosopher [...] said” (*Qaşṭūs nām ḥakīm [...] demişdür*): “When I planted [grapevines] in the fall, people rejected it, but upon witnessing the benefits I gained their favor and prayers.”<sup>83</sup> Below, “Qaşṭūs” gets even more specific: “[Planting of grapevines] should take place after the fourth night of the month until the mid-month.”<sup>84</sup> Qaşṭūs had indeed

80 Ahmed Refik, *Hicri on Birinci Asırda İstanbul Hayatı: 1000–1100* (İstanbul: Enderun Kitabevi, 1988), 9.

81 Barkan, “Edirne Askeri,” 165–166.

82 Ibid., 195 and 206.

83 Önler, *Revnaḳ-ı Būstān*, 24.

84 Ibid., 24.

gone into much greater depth about grapevines – their planting, grafting, tending, and processing into wine and vinegar – than any other authority on farming disseminated in Arabic between the 10<sup>th</sup> and the 15<sup>th</sup> centuries. Grapevines are the first trees Qaṣṭūs discusses, and he devotes an entire section (*juz*) to them.<sup>85</sup> In addition to his advice on grapevines, the author of the *Revnaḳ-ı Būstān* cites Qaṣṭūs on how to plant apples – by adding wild onion in the roots to destroy worms –<sup>86</sup> and on a method of treating trees attacked by worms, by applying human and animal feces to the roots.<sup>87</sup> Perhaps the author of the *Revnaḳ-ı Būstān* had a small selection of works to consult, and Qaṣṭūs's simply happened to be one of them. However, his emphasis on Qaṣṭūs was more likely a choice, a harnessing of authority to meet the particular agricultural concerns of his own time and place.

Though the content of the *Revnaḳ-ı Būstān* reflects the agricultural conditions in Edirne in the 16<sup>th</sup> century, across the Ottoman world there had been a growing interest in agricultural spaces and techniques. The growth of the Ottoman cities during this period, the intensification of trade and consumption by urbanites, and the growing interest in establishing commercial farming operations was changing the landscape around cities. *Revnaḳ-ı Būstān* was both a product and the vehicle for the creation of these new landscapes dominated by irrigation- and labor-intensive agriculture. Owning the kind of knowledge described in this novel book would have carried social and political value. In the following pages we will see that the growing interest in books on farming and their translation into vernacular Turkish was a phenomenon not limited to the Turkish-speaking Balkans and Anatolia. Rather, it was part of a wider trend in which practical knowledge about the natural sciences was being made available to a broader public, which was unable to tap into the older and voluminous works in Arabic.

## A Farming Almanac Translated in Cairo

On 11<sup>th</sup> of January 1547 (H. 19 Dhū al-Qa‘da 953), Yūsuf Sa‘adullāh b. Bektūt Feydī, a scholar about which almost nothing is known, completed his translation of a treatise on the “science of astrology and issues related to farming” (*‘ilm-i nucūm ve mesā’ il al-filāḩa*).<sup>88</sup> According to Yūsuf Sa‘adullāh, the original Arabic

85 Qaṣṭūs Ibn Iskulastiqa, *Kitāb al-Zar‘*, edited by Būrāwī al-Ṭarābulṣī (Qarṭāj: al-Majma‘ al-Thaqāfi lil-‘Ulūm wa-al-Ādāb wa-al-Funūn, 2010), 99–164.

86 Önler, *Revnaḳ-ı Būstān*, 34.

87 Ibid., 52.

88 Yūsuf Sa‘adullāh bin Bektūt Feydī, *‘ilm-i Nucūm ve Mesā’ il al-Filāḩa*, Süleymaniye Kütüphanesi, İstanbul, ms. Ayasofya no. 2707/2; see f. 66b for the introduction and f. 98b for the colophon where the date of the completion of the manuscript is noted.

text of the work was written by Shaykh Ābū al-Khayr al-Ishbīlī, a well-known 11<sup>th</sup>-century agricultural writer from Seville.<sup>89</sup> In the introduction, Yūsuf Sa‘adullāh dedicates his translation to Dāvud Pāšā and describes it as a selection of some chapters from the original Arabic manuscript written by Shaykh Ābū al-Khayr al-Ishbīlī.<sup>90</sup> However, the content of Yūsuf Sa‘adullāh’s translation does not correspond to the published writings of Ābū al-Khayr al-Ishbīlī.<sup>91</sup> In the introduction, Yūsuf writes that he had translated this work into Turkish for those who did not know Arabic and that this was for the “common good” (*fevā’id-i ‘amm*).<sup>92</sup> The language of his translation was indeed the vernacular Turkish of ordinary speakers, whose numbers must have increased with the establishment of Ottoman rule in Egypt in 1517 and the rising flow of bureaucrats, merchants and scholars from Istanbul and the Anatolian and Balkan provinces. In other words, this was not the complex Turkish used in some of the prose of Yūsuf’s time; rather, it used Turkish words for soil, trees, and plants, words that even illiterate farmers in the countryside of Anatolia and the Balkans would have recognized. The vernacularization of agricultural knowledge in Turkish may thus have begun in Egypt, known for its rich libraries, which included many books on agriculture. Besides the community of wealthy bureaucrats and merchants from Istanbul, Anatolia, and the Balkans who resided in the province in the mid-16<sup>th</sup> century, there were still Mamlūks who knew the language.<sup>93</sup>

At the end of January or beginning of February in 1578, Yūsuf’s translation – now in the Ayasofya collection in the Süleymaniye library in Istanbul – was copied for Naşūh Āgā, who may have been the *kethüdā* of some vizier or grand lady (*Hātūn*), or perhaps employed in the palace administration in Istanbul.<sup>94</sup> Another copy is held today in the National University Library in Skopje; though its first pages and a large section of the last part of the manuscript are missing, making it impossible to date, the handwriting seems to date to the 16<sup>th</sup> or

89 Ibid., f. 66b. This translation is identified as being of Abū ‘Umar Aḥmad ibn Muḥammad ibn Ḥajjāj al-Ishbīlī’s *Al-Muqni’ fi ‘l-Filāḥa*. See Ihsanoğlu, *Osmanlı Tabii Ve Tatbiki Bilimler Literatürü Tarihi*, 1:31–32.

90 Yūsuf Sa‘adullāh, *‘Ilm-i Nucūm ve Mesā’ il al-Filāḥa*, Süleymaniye Kütüphanesi, İstanbul, ms. Ayasofya no. 2707/2, f. 66b.

91 It is difficult to determine the relationship of Yūsuf Sa‘adullāh’s translation to an original we do not have. Further research should be conducted on this. For an edition of Abū al-Khayr al-Ishbīlī’s writings, see Abū al-Khayr al-Ishbīlī, *Kitāb al-Filāḥa: Tratado de Agricultura*, edited, translated into Spanish and indexed by J.M. Carabaza Bravo (Madrid: Agencia Española de Cooperación Internacional, Instituto de Cooperación con el Mundo Árabe, 1991).

92 Yūsuf Sa‘adullāh, *‘Ilm-i Nucūm ve Mesā’ il al-Filāḥa*, Süleymaniye Kütüphanesi, ms. Ayasofya no. 2707/2, f. 66b.

93 The last Mamluk sultans Qāyrbāy and Qānšūh al-Ghūrī are known as patrons of literary works written in Turkish. See Mehmet Yalçın, *The Dīvan of Qānšūh al-Ghūrī* (İstanbul: Bay, 2002), 32–47.

94 Süleymaniye Kütüphanesi, İstanbul, ms. Ayasofya no. 2707/2, f. 98b.

17<sup>th</sup> century.<sup>95</sup> The work Yūsuf created in Cairo that winter in 1547 was relatively quickly transplanted to other geographies across the Ottoman realm. Dāvud Pāšā, to whom the translation was dedicated, was the Ottoman governor of Egypt and had also previously served as a eunuch in the Topkapı Palace.<sup>96</sup> He also had a connection to another Arabic-Turkish translation: while serving as governor of Egypt between 1538 and 1547,<sup>97</sup> he commissioned a translation into Turkish of a history of Egypt written by the 15<sup>th</sup>-century Mamlūk scholar Ḥasan b. al-Ṭūlūn. It was translated by ‘Abduşşamed b. Seyyidī ‘Alī b. Dāvud Diyārbekrī. Yet this was more than just a faithful or direct translation; the translator continued writing where Ṭūlūn stopped and updated his history of Egypt up to the 1540s. It has been demonstrated that from the 1520s there were increased efforts by the Ottoman scholarly class to facilitate the study of works in languages other than Turkish.<sup>98</sup> The growing interest in Persian and Arabic languages is attested by the number of dictionaries and grammar books written by Ottoman scholars in the 1510s and 1520s.<sup>99</sup> In 1530–1, the first Anatolian Turkish grammar book was composed for the grand vizier İbrāhīm Pāšā. Its author, Qadrī of Bergama, writes that speakers of Turkish that have learned other languages can benefit from the book by comparing their tongue with others.<sup>100</sup> Interestingly, as Ottoman scholars produced tools for translating, a particular standard Turkish used in the scribal offices of the palace in Istanbul was formulated in parallel.<sup>101</sup> It is worth drawing attention yet again to the rich political and social networks underlying this process. Diyārbekrī had friendly relations with the head financial officer of Rumili, Iskender Çelebi, who had arrived in Cairo with the Ottoman governor İbrāhīm Pāšā in 1525 to survey the province and to produce a new law code for its administration.<sup>102</sup> Both İbrāhīm Pāšā and Iskender Pāšā, had by 1530s established farm estates (çiftlik) near Istanbul.<sup>103</sup> The early vernacularization of books on farming was directly related to the spheres of bureaucrats of the highest ranking, such as Dāvud Pāšā (d.1549), who endowed numerous agricultural lands

95 Yūsuf Sa‘adullāh, *‘Ilm-i Nucūm ve Mesā’il al-Filāḥa*, Narodna Univerzitetaska Biblioteka Kliment Ohridski, Skopje, MST, II, 352.

96 Süleymaniye Kütüphanesi, Istanbul, ms. Ayasofya, no. 2707/2, f. 66b.

97 Benjamin Lellouch, *Les Ottomans en Egypte: Historiens et Conquêteurs au XVIe Siècle* (Louvain and Dudley, MA: Peeters, 2006), 108.

98 Selim Kuru, “The Literature of Rum: The Making of a Literary Tradition (1450–1600),” in *The Cambridge History of Turkey Vol. 2: The Ottoman Empire as a World Power, 1453–1603*, edited by S. Faroqhi and K. Fleet (Cambridge: Cambridge University Press, 2013), 560–562.

99 *Ibid.*, 2: 561–562.

100 Bergamalı Kadri, *Müeyyiresitü’l-Ulūm: Giriş, Metin, Sözlük, Terimler Dizini, Tıpkıbasım*, edited by Esra (Ankara: Türk Dil Kurumu, 2002), 5; and Kuru, “The Literature of Rum,” 562.

101 Kuru, “The Literature of Rum,” 562.

102 *Ibid.*, 62, 119.

103 Shopov, “Between the Pen and the Fields” 151–152.

and properties, including orchards near Cairo, to his charitable foundation (*waqf*).<sup>104</sup>

The translation that Yūsuf Sa‘adullāh dedicated to Dāvud Pāṣā focuses heavily on the cultivation of fruit trees, which resonates with many of Dāvud Pāṣā’s agricultural enterprises. The first section is dedicated to astrology and the months according to the Greek, Syriac, and Coptic calendars. Thus, we find chapters on the “parts of the year” (*yılın faşıllarının beyân ider*) and “daybreak according to the Rūmī calendar and its signs” (*zıkrî olan rûmî aylarda fecr doğduğunun vaqt ve ‘alâmetleri beyân ider*).<sup>105</sup> There are five chapters on farming, the combined length of which is almost identical to that of the first section. They cover the following subjects: 1) the planting of plants and trees; 2) grafting trees; 3) the timing and types of grafting, the place where the branch should be cut, and the need to graft many branches; 4) the methods of grafting and how it is done; 5) which trees can be grafted onto each other, from experience, and from what is heard from other gardeners (*bâğbân*). In the copy from 1578 now in the Süleymaniye library in Istanbul, the second chapter also contains a diagram of the seven climes of the earth. Symmetrically stretching across an entire opening, the earth is depicted as a circle outlined in red ink, with the cardinal directions labeled. The seven climes are delineated with horizontal red lines running across the center, between which are inscribed the names of regions particular to each. A marginal inscription in the upper right corner suggests a regional context for the manuscript: it calculates the area of the entire earth, specifying how much of it belongs to the sea, to the land, and to “Rümili,”<sup>106</sup> i. e. the Balkans and western Anatolia.

The striking emphasis on fruit trees and grapevines in Yūsuf’s work also echoes the *Revnağ-ı Būstān* that was likely created in the same period. One of two sub-chapters (*faşl*) within the five chapters (*bāb*) on agriculture is devoted to pruning grapevines.<sup>107</sup> However, whereas the *Revnağ-ı Būstān* is more discursive, Yūsuf’s translation is more instructional and didactic: the former uses qualifying language such as “it is said” or “it is beneficial,” while the latter frequently implores “must” (*gerek*), without providing references to older agricultural authorities. Again, Yūsuf’s work seems to have far exceeded mere translation. He calculates the best times for planting according to the Islamic calendar for the year in which his translation was made, the Islamic year of 953 (1547). In the first

104 Āmāl İmarî, *Dirāsât fî Wathā’iq Da’ūd Bāshā Wālî Mişr*, Egypt: Dār al-Thaqāfah lil-Nashr wa-al Tawzî‘. 1986, 12–33.

105 Süleymaniye Kütüphanesi, Istanbul, ms. Ayasofya no. 2707/2, f. 78b.

106 Süleymaniye Kütüphanesi, Istanbul, ms. Ayasofya no. 2707/2, ff. 90b–91a.

107 *Ibid.*, f. 88a. This interest in grapevines may have been connected to producing wine. Greffin Affagart, who visited Cairo in ca. 1533, remarked on the high prices of wine there. See Hanna, *An Urban History of Būlāq*, 29.

chapter on farming, while discussing the planting of vegetables, beans, and grain, the text makes several references to the best months for planting according to the Greek (*Yūnānī*), Syriac (*Suryānī*), and Coptic (*Ḳibṭī*) calendars,<sup>108</sup> with Yūsuf providing the corresponding dates and months of the Islamic calendar. For example, he notes that the planting of watermelon, cantaloupe, cucumber, squash, eggplant, and other leafy plants and flowers falls at the end of the winter, in the Greek month of Ādār and the Coptic month of Baremhāt, which he calculates as the month of Muḥarrem in the Islamic year of 953 (1547).<sup>109</sup> In other words, he not only calculates the planting times according to the Islamic calendar, but also for the current year, suggesting his translation was aimed not just at transmitting old knowledge but at updating it, which could have also functioned as a potentially useful historical tool for scholars wishing to navigate the different dating systems and to access more ancient histories.

## The Trouble of Tending a Vineyard

Out of its four chapters, the *Revnaḳ-ı Būstān* devotes the final chapter to the protection of fruit trees, especially grapevines, from pests and diseases. This chapter and the third one, on pruning and grafting, begin with discussions of grapevines. The author describes various treatments that can be applied to the pruning tool, or *ṭahra*, to protect the vine from diseases and pests.<sup>110</sup> He describes a secretive, almost occult scene of practice:

“Secretly in a place where no one can see, apply fat on the *ṭahra* with which you will prune; garlic should be crushed and mixed with olive oil and should be applied on the *ṭahra* with which you prune; or you can find the insects in the vineyard and smash them and mix them with the fat and apply them on the *ṭahra*; or you can apply buffalo fat or the blood of frog or ashes from the grapevine mixed with olive oil; and after that you cut. And it [the vine] will be protected from all the diseases and insects.”<sup>111</sup>

The large areas of grapevines clustered around Edirne, Istanbul and other major urban centers in the Ottoman Balkans and Anatolia were the kind of monocultural space that enabled pests to quickly spread. The emphasis on methods of preventing the spread of diseases in grapevines would have resonated with the *Revnaḳ-ı Būstān*'s early readers. As the landscape around the city was changing,

108 The use of Syriac and Coptic months is seen in Andalusian farming almanacs such as Ibn Sa'd's work of 961. For an edition and French translation of this work, see Arīb ibn Sa'd, *Le Calendrier de Cordoue publié par R. Dozy. Nouvelle Edition Accompagnée d'une Traduction Française Annotée*, edited by C. Pellat (Leiden: Brill, 1961).

109 Süleymaniye Kütüphanesi, Istanbul, ms. Ayasofya no. 2707/2, f. 84b.

110 Ibid., 43.

111 Ibid., 43.

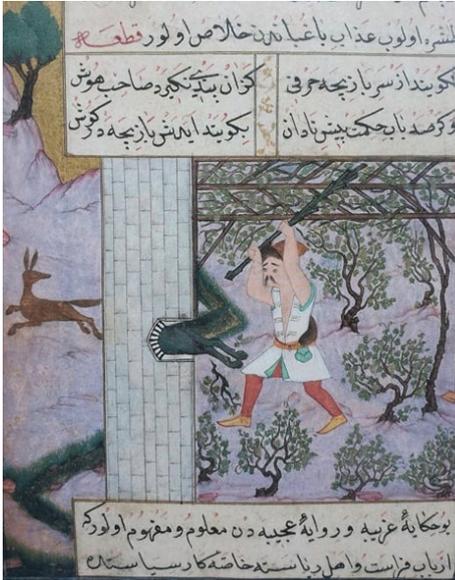


Figure 2: Depiction of a vineyard in an early seventeenth-century miniature. [Nurhan Atasoy.15. yüzyıldan 20. Yüzyıla Osmanlı Bahçeleri ve Hasbahçeler (İstanbul: TC Kültür ve Turizm Bakanlığı, Güzel Sanatlar Genel Müdürlüğü, 2005), 6.]

an urgent concern arose to address this change with the creation of a new body of knowledge.

The anonymous author of the *Revnağ-ı Būstān* characterizes good farming as an individual intervention by someone who knows the right recipe. That the pruning of grapevines was emerging as a form of knowledge that would be of interest to scholars was connected to the redistribution of land around Ottoman cities and their transformation into market-oriented agricultural spaces, including vineyards, controlled not by peasants but by wealthy urbanites. We might note the rhetoric of improvement that accompanied this 16<sup>th</sup>-century enclosure of land by the author: “plucking the thorns,” a term used in his introduction to describe how the author established his garden. Similar rhetoric also appears in English works on farming, such as Ralph Austen’s 1650 ‘A Treatise on Fruit trees.’<sup>112</sup> The image of an urbanite who knew how to manage land and had an intricate understanding of how plants and trees prosper would have supported urbanites’ claims to proprietary rights over agricultural land. As a growing number of customary tenants or peasants were becoming landless and more land

112 Katherine Bootle Attie, “Enclosure Polemics and the Garden in the 1650s,” *Studies in English Literature 1500–1900* 51, 1 (2011), 134–157.

entered the control of urbanites, an Ottoman scholarly discourse on farming arose that was strikingly practically oriented.<sup>113</sup>

As the pages of the *Revnaḳ-ı Būstān* were bound together, a new Ottoman countryside was emerging. Already by the second half of the 16th century, Ottoman writers discussed the worrisome influx of peasants from the countryside into the city.<sup>114</sup> This migration created a pool of additional laborers who participated in the establishment and maintenance of the growing numbers of vineyards. In 1573, Albanian Christians are recorded as migrating more than one thousand kilometers from the western Balkans to Anatolia, on the pretext of being employed as guards of vineyards.<sup>115</sup> In a 1582 tax survey of the Ohrid province, which encompassed much of western Macedonia and central Albania – most likely the region from which the Albanian Christians migrated – the usufruct of land controlled by Christian customary tenants known as *bāština*, as well as land controlled by Muslim peasants, was gradually being transferred to members of the military class, palace servants, military fief-holders, prominent Muslim women and other urbanites.<sup>116</sup> By the end of the 16th century, peasants in this province received loans and abandoned their landholdings when the settling of the accounts took place, with creditors forcing higher interest rates and taking more money and grain than agreed upon.<sup>117</sup>

The scholar and bureaucrat Gelibolulu Muṣṭafā ‘Alī, who might have been one of the contemporaries of the author of *Revnaḳ-ı Būstān*, characterized wine as the “coquettish woman of the Rum,”<sup>118</sup> “Rum” here referring to the Ottoman regions of the southern and central Balkans and western Anatolia. Edirne, among other cities such as Skopje, Sofia, Prizren, and Thessaloniki, was regarded as one of Rum’s major urban centers. Rum was an area associated with the Roman Empire and the new Ottoman scholarly and bureaucratic elite hailing from these

113 Shopov, “Between the Pen and Fields,” 191–227, 242–294, 388–400.

114 Cemal Kafadar, “Les Troubles Monétaires de la Fin du XVIe Siècle et la Prise de Conscience Ottomane du Declin,” *Annales: ESC* 2 (1991).

115 BOA, A.DVNSMHM.d, no. 23, f. 58/122.

116 Aleksandar Stojanovski, *Makedonija vo Turskoto Srednovekovje: od Krajot na XIV – Pocetokot na XVIII vek* (Skopje: Kultura, 1989), 109–114.

117 Dušanka Šopova, *Makedonija vo XVI i XVII Vek: Dokumenti od Carigradskite Arhivi (1557–1645)*, Skopje: Institut za Nacionalna Istorija, 1955, 87–88. A government order of 1606 to the inspector of the province of Ohrid had noted that reports of indebtedness had been arriving at the state council.

118 Gelibolulu Mustafa ‘Alī, *Câmi ‘u’l-buhûr der mecâlis-i sûr*, edited by Ali Öztekin (Ankara: Türk Tarih Kurumu Basımevi, 1996), 188; Ebru Boyar and Kate Fleet, *A Social History of Ottoman Istanbul*. Cambridge, UK ; New York : Cambridge University Press, 2010, 194.

regions identified itself as Rumi (Roman).<sup>119</sup> Writing in the 1580s, Gelibolulu Ali also notes in his description of the procession of the guilds in Istanbul in 1582 that the owners of the boza (a drink made from millet) houses in Istanbul characterized the coffee that had been newly introduced to the city as the “the wickedness of Yemen,” a reference to Ottoman Yemen as a center of coffee growing and production. Gelibolulu Muştafâ ‘Alî’s quip indicates that Ottoman regions were becoming associated with their agricultural products in what was by this time an empire stretching from central Europe to the Indian Ocean. Global trade sparked regional environmental changes. The *Revnağ-ı Būstān* with its strong emphasis on grapevines was the product of such a transformation in the countryside around the city of Edirne, which became the site of sprawling vineyards. As the geographical reach of Ottoman merchants, investors in agriculture, armies, and migrant agricultural laborers was expanding, new demands for regional agricultural knowledge emerged. Those urbanites investing in the countryside provided an immediate audience for a vernacular discourse on farming. The *Revnağ-ı Būstān* contains a rhetoric for advancing proprietary rights over land normally controlled by customary tenants, the peasants, who in central Ottoman regions in the second half of the 16<sup>th</sup> century were increasingly losing control over land.<sup>120</sup> The treatise’s author, an urbanite, claims to have the ability to combine the knowledge from the older books on farming with that of the practitioners, hinting at a superiority over the customary tenants, the illiterate tiller of the land.

The creation of large vineyard complexes was an undertaking that came with certain built-in risks. The earliest known surveys of vineyards in the eastern Mediterranean are the three now held in the archive collection of the Topkapı Palace library. Earlier tax surveys of regions throughout the Ottoman state had included vineyards and areas with grapevines, as well as recorded tithes paid from *şıra*; – sweet, non-fermented juice from which jam, vinegar and wine were made – however, the surveys held in the Topkapı Palace library are, to the best of the present author’s knowledge, the first surveys taken specifically of vineyards. Conducted in 1551–2, 1553–4, and 1556–7, they record vineyards near several villages around Silivri, around the southern Marmara coastal town of Edincik, and in the Hışlar district bordering Istanbul (today part of greater Istanbul), respectively.

The vineyards around Silivri surveyed in 1551–2 were all planted on land endowed to the charitable foundation of Bāyezid II (r.1481–1512). The survey

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119 On Rumi identity see Cemal Kafadar, “Rome of One’s Own: Reflections on Cultural Geography and Identity in the Lands of Rum,” *Muqarnas: An Annual on the Visual Culture of the Islamic World* 24 (2007), 20.

120 Shopov, “Between the Pen and Fields,” 123–151.

from 1551–2 was unusual in another way: it is the earliest instance – to the present author’s knowledge – of a charitable foundation undertaking an *illustrated* survey, including a schematized drawing of a vineyard that provides its area in measurements [see figure 3].<sup>121</sup>



Figure 3: Detail of an illustrated survey of vineyards from 1551–2 (T SMA, D. 1232).

In addition to providing precise information about the surrounding properties, the survey records the surface area of vineyards down to fractions of a dönüm. It also specifies the *age* of the vineyards, in Persian: one year old (*yek sāle*), two years old (*do sāle*), three years old (*se sāle*), new (*cedīd*), newly planted (*gürme*), old (*kadīm*), or destroyed (*ḥarāb*). The vineyards are registered by owner, with many individuals having more than one. The survey records vineyards in eight villages: 46 in the village of Davutça, 28 in the village of Aldura, 38 in the village of Kara Sinan, 12 in the village of Kara Murad, 56 in the village of Qāzī, 35 in the village of Mermercik, 30 in the village of Yenice, 16 in the village of Fethi, 419 in

121 BOA, T SMA, D.1232, ff. 1–38b.

the village of Biğados (present-day Selimpaşa), and finally 80 in the village of Şah Turi. All of these were located to the west of Istanbul, along the Marmara coast where the climate was suitable for grapevines. In contrast, in the hilly regions north of the city towards the Black Sea, livestock farms were established.<sup>122</sup>

The survey shows that the vineyards were investments of the military class ('*askerî*) and various urban elites. In the village of Yenice, three vineyards designated as "old" (*kadîm*) and measuring 45 dönüm (approximately four hectares) belonged to Sinân Çelebi, Meḥmed Çelebi, and the children of the deceased Aḥmed Pâşâ.<sup>123</sup> On the same page, the vineyards of someone called Bâli Beg and the janissary Iskender are recorded. Iskender established, in addition to his "old," one-dönüm vineyard, a "two-year-old" vineyard of a much smaller size.<sup>124</sup> In the neighboring village, the daughter of Aḥmed Pâşâ, called Ḥanım Sulṭân, – whose title indicates connection with the royal family – owned five vineyards: three "old," one "new," and one "two-year-old." The total area of her vineyards was ten dönüm (approximately one hectare); they were in the vicinity of her house, suggesting that they may have been part of a farm-estate.<sup>125</sup> In the same village, an incomplete entry was made for vineyards belonging to the former head of the financial department, Ḥayreddîn Beg Efendi, who prepared the income records of the treasury in 1546–7;<sup>126</sup> two blank spaces are left under the heading "the vineyard of the former head of the financial department Ḥayreddîn Beg Efendi."<sup>127</sup> The administrations of the palace and Bâyezîd II's charitable foundation seem to have been closely monitoring the oscillations between productive, newly established, and destroyed vineyards. Let us not forget that surplus from the foundation flowed into the inner treasury; as such, there may have been a very powerful incentive to estimate the taxes that could be collected from vineyards with more accuracy.

The survey also suggests that there had been some worrisome developments. Again, the coastal village of Biğados (present-day Selimpaşa), located between Silivri and Istanbul, was recorded as having an extremely high number of vineyards, 419 in total. According to the survey, more than 80 hectares (890 dönüm) in Biğados were planted with old and new vineyards. Designated with the terms "new," "one-year," or "two-year," new vineyards covered more than 33 hectares

122 One such example is the farm estate of Meḥmed Çelebî b. Firûz, which raised 32 buffaloes. See Çakır and Özcan, *Istanbul Kadı Sicilleri: Eyüb Mahkemesi (Havâss-ı Refîa) 3 Numaralı Sicil (H. 993–995 / M. 1585–1587)*, 167–168.

123 BOA, TSMA, D.1232, f. 13b.

124 Ibid., f. 13b.

125 Ibid., f. 15a.

126 Ömer Lütfî Barkan, "H. 954–955 (M. 1547–1548) Mali Yılına Ait Bir Osmanlı Bütçesi." *Istanbul Üniversitesi İktisat Fakültesi Mecmuası XIX*, no. 1–4 (1960), 237.

127 BOA, TSMA, D. 1232, f. 15a.

(386 dönüm), yet around 30 hectares (237 dönüm) are also recorded as “destroyed.”<sup>128</sup> The surveyor does not specify why or how these vineyards were destroyed. By comparison, in Davutça, a village that may have been located more inland, the surveyor records 31 “old,” four “one-year-old,” one “destroyed,” three “new,” two “newly planted,” two “three-year-old” and two “two-year-old” vineyards; in other words, only one out of 31 vineyards were recorded as destroyed.<sup>129</sup> The specificity with which the surveyor recorded the age of the vineyards and the fact that some may have replaced those that were recently destroyed suggest a dynamic, fluctuating situation on which the administration of Bâyezîd II’s charitable foundation and of the palace were eager to keep tabs. There was a three-year period in which newly planted grapevines developed and began to yield grapes – in other words, the period after which a tithe could be collected. Using the dönüm, the administration could approximate the amount of *şîra* that could be produced and thus apply taxation.<sup>130</sup> Even vineyards smaller than one dönüm were surveyed with this degree of precision, which was crucial for assessing the exact yield of *şîra*. The expansion of vineyards, and the destruction of some, perhaps from pests or diseases, prompted new surveying practices and raised the bar for the kind of knowledge administrators needed to possess.

Indeed, as we have seen, during this period agricultural knowledge was becoming more important for administrators. In 1547, just a few years before it commissioned a survey of vineyards on its lands, the charitable foundation of Bâyezîd II in Istanbul transferred 250,000 akçe from its surplus to the treasury. That same year, Bâyezîd II’s charitable foundation in Edirne, on whose lands many nearby vineyards were located, transferred a whopping 551,100 akçe to the treasury.<sup>131</sup> The state of vineyards was closely linked to the state of the state, as it were.

The second survey, conducted in 1553–4, records another area that appears to have specialized in viticulture and was likewise endowed to the charitable foundation of Bâyezîd II in Istanbul: the town of Edincik, located on the southern coast of the Marmara Sea on the major trade route that connected Bursa in northwestern Anatolia with Çanakkale on the Dardanelles strait. This survey is 33 pages long and records several hundred vineyards. The total area of the

128 The numbers are even larger than those that I give; where areas were measured to fractions of a dönüm, I rounded down.

129 BOA, TSMA, D.1232, ff. 1b–4a.

130 Oleksander Halenko, “Wine Production, Marketing, and Consumption in the Ottoman Crimea, 1520–1542,” *Journal of the Economic and Social History of the Orient* 47 no. 4 (2004), 522. Halenko calculates that in the Crimea the tithe was 40 akçe per dönüm on which approximately 100 kilograms of fresh grapes were produced.

131 Barkan, “954–955 (1547–48) Malı Yılına Ait,” 250.

vineyards around Edincik was more than 1,321 dönüm (approximately 121 hectares).<sup>132</sup> These included more than 126 dönüm of “destroyed” vineyards, – a significantly lower ratio than the vineyards around Silivri – as well as 99 dönüm of unspecified orchards. The last two pages record vineyards in what were probably two neighboring villages. Edincik’s specialization in viticulture was invoked in a poem by a native son, a mid-16<sup>th</sup> century poet who wrote with the pen-name Ravzî – “the one from the garden.” The poem was a *şehirengiz*, a genre of Ottoman poetry that emerged at the beginning of the 16<sup>th</sup> century and was dedicated to the beauties of a particular city and the spaces and people that distinguished it from other cities. In the 16<sup>th</sup> century, dozens of Ottoman cities garnered their own poems, with Edincik being one of them.<sup>133</sup> Ravzî’s opening verse about his hometown reads: “Filled with the desire of the nightingale, in every corner there is a vineyard and a beauty”<sup>134</sup> (*Şevk-i bülbülle tolu her güşesi bâğ u bahār*).

The third survey, from 1556–7,<sup>135</sup> records vineyards in the Hâşlar district. Again, this district bordered Istanbul to the north and the west and had been endowed in its entirety to the charitable foundation of Bâyezîd II in 1505. Some areas in the district seem likewise to have specialized in viticulture. The 1556–7 survey notes a cluster of vineyards in the northern section of the Bosphorus strait around the villages of Uskumru, Fener, Sarıyer, İstinye, Tarabye and Boğazkesen (present-day Rumelihisar). The surveyors then moved some 30 kilometers further west of Istanbul and surveyed the vineyards in villages around Yarıık Burğâz (present-day Yarım Burgaz) including Papazcık and Ömerlu (north of the Küçükçekmece lake).<sup>136</sup> These areas were located near major waterways, which could have facilitated trade. Besides regions in Thrace, around Edirne and Istanbul, vineyards were also concentrated elsewhere in Ottoman territories. The Simontornya province in Hungary, 20 years after its conquest by the Ottomans, was recorded in tax surveys of 1546–7 as a large producer of wine. According to these surveys, wine constituted 47 % of all taxes of agricultural products in the

132 BOA, TSMA, D.12822, ff. 2b–13b.

133 This new genre reflected an increasing interest in the character of Ottoman cities, and more generally in communicating knowledge about *places* in a vivid and convincing way. Throughout his *dīvān* (poetry collection), Ravzî invokes his experiences of the places that he visited (Istanbul, Üsküp/Skopje, Albania, etc.). See Yaşar Aydemir, *Ravzî Divanı* (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2009), xx–xxiv.

134 Gülhan Abdülkerim, “Şehrengiz Türü ve Ravzî’nin Edincik Şehrengizleri,” *Turkish Studies – International Periodical for the Languages, Literature and History of Turkish or Turkic*, 7, no. 2 (2012), 525.

135 BOA, TSMA, D. 1255, ff. 1b–16b.

136 BOA, TSMA, D. 1255, ff.17–23b.

province that year.<sup>137</sup> In Crimea, too, grapes were the single most valuable tax source from all the agricultural production in this Ottoman province.<sup>138</sup> By the mid-16<sup>th</sup> century, new, larger vineyards were being established by the region's Muslim urban elites that were equally as productive as the older vineyards managed by the Christian population.<sup>139</sup>

In the prosperous mining district of Kratovo in northeastern Macedonia, a 1550 tax survey shows a steep decline in the tithe on *şira* compared to the one from 1519. Aleksandar Stojanovski has proposed that this decline in the production of grapes in Kratovo may have been the result of disease.<sup>140</sup> A decline in viticulture was also observed in one of the most northern Ottoman provinces, that of Bosnia, between 1548 and 1604, which is associated with the advance of the Little Ice Age in Europe.<sup>141</sup> The simultaneous destruction of vineyards in the Marmara coastal region and northeastern Macedonia – and the creation, around this same period, of a new agricultural treatise in Turkish especially devoted to issues and methods of viticulture – may not have been coincidental. A subtle warning about the importance of climes in relation to the kind of plants to be grown comes from contemporary Ottoman scholars. In the 1550s, the Istanbul-based scholar Aḥmad b. Muştafa Taşköprülüzâde (d.1561) in his book on the classifications of the sciences, *Miftāḥ al-Sa'āda wa-Mişbah al-Siyāda fī Mawḍū'āt al-'Ulūm*, for the first time in the genre of such works penned by Ottoman scholars, added a reference to a book on farming, Ibn Waḥshīya's *Nabataean Agriculture*. Taşköprülüzâde classified the “science of agriculture” (*ilm al-filāḥa*) as a branch of physics or a natural science (*ilm al-ṭabī'ī*) and cites the *Nabataean Agriculture* as an exemplary work. He defines the *ilm al-filāḥa* as the treatment of plants from their appearance until maturity and the improvement of the soil, and also warns that its rules vary according to different climes, obviously here referring to the vast Ottoman empire with its different climes.<sup>142</sup>

The earlier mentioned 'Āşık Meḥmed's cosmography incorporated observations pertinent to the effects of changing weather on particular kinds of orchards. For examples, in his entry on the city of Izmir, which he claims to have visited in the summer of 1585–6, he describes asking the locals why the orange trees there had lost their leaves. The answer he received was that the winter had

137 Geza David, *Osmanlı Macaristan'ında Toplum, Ekonomi ve Yönetim 16. Yüzyılda Si-montornya Sancağı* (İstanbul: Tarih Vakfı Yurt Yayınları, 1999), 137.

138 Halenko, “Wine Production, Marketing and Consumption in the Ottoman Crimea,” 512.

139 Ibid., 528–34.

140 Stojanovski, *Makedonija vo Turskoto Srednovekovie*, 447–8.

141 Jelena Mrgić, *Severna Bosna: 13–16. Vek* (Beograd: Istorijski Institut, 2008), 294.

142 Aḥmad ibn Muştafa Tāshkubrī'zādah, *Kitāb Miftāḥ al-Sa'ādah wa-Mişbah al-Siyādah fī Mawḍū'āt al-'Ulūm*, vol.2, Ḥaydar Ābād Dakkan (Maṭba'at Dā'irat al-Ma'ārif al-'Uthmā-nīyah, 1977), 307.

been strong, and the trees were “burnt” from the snow and the cold.<sup>143</sup> Perhaps not coincidentally, the *Revnağ-ı Būstān* mentions the negative effect of snow on citrus trees,<sup>144</sup> though its focus is, again, more on grapevines. Tax records indeed show a 300-percent increase in Izmir in the production of bitter oranges between 1528 and 1575, and by the end of the 16<sup>th</sup> century oranges had come to play an important role in the city’s economy.<sup>145</sup> Immediately after discussing Izmir’s orange trees, ‘Āşık Mehmed adds that the city’s grapes and figs are exceptional and are sent to Istanbul.<sup>146</sup> Not only Istanbul, fruits from Izmir were shipped also to Crimea, as one government order of 1567 dictates, from where they could have been sent farther towards northern Europe.<sup>147</sup> For the contemporaries of the anonymous author of *Revnağ-ı Būstān*, fruits including grapes were objects not only of regional but also international trade.

## Wine

In the Ottoman medical book *Yâdigâr*, written in Turkish in the 1420s, products from grapes such as medicinal pastes, vinegar and wine receive lengthy treatment. The author warns against the excessive use of wine and its detrimental effects on human health, also describing remedies against the negative effects of excessive consumption.<sup>148</sup> During a period in which viticulture was increasingly of interest to Ottoman elites, both precise topographies of vineyards and wine-drinking began seeping into literary works. While the first Ottoman biographical dictionary, written in Edirne in 1538 by Sehî Beg, mentions a number of Ottoman poets and scholars as being wine-drinkers, in works of this genre from later in the 16<sup>th</sup> century, such as those of Lâtîfî and ‘Āşık Çelebî, the spaces of wine consumption would be described in more detail. The scholar and poet Melihî, who according to Sehî Beg was renowned for his love of wine,<sup>149</sup> is reported in Lâtîfî’s

143 Mehmed Aşık, *Menâzirü’l-Avâlim*, edited by Mahmut Ak (Ankara: Türk Tarih Kurumu Yayınları, 2007), 2:901.

144 Önler, *Revnağ-ı Būstān*, 39.

145 Mubahat Kütükoğlu, *XV ve XVI Asırlarda Izmir kazasının Sosyal ve İktisadi Yapısı* (İzmir Büyükşehir Belediyesi Kültür Yayın, 2000), 158. Mubahat Kütükoğlu who noted this increase in the production of oranges, saying that it may be a product of the change in the tax recording practice. The bitter oranges may have been classified earlier within the generative term ‘fruits’. She, however, does not exclude the possibility that the district had seen an outburst of planting such trees within a 50-year period.

146 Mehmed Aşık, *Menâzirü’l-Avâlim*, 2:901.

147 Kemal Gurulkan (ed). *Osmanlı belgelerinde Kırım Hanlığı = Crimean Khanate in Ottoman documents*. İstanbul : T.C. Başbakanlık Devlet Arşivleri Genel Müdürlüğü, 2013, 21.

148 İbn-i Şerif Tabîb, *Yâdigâr: 15. Yüzyıl Türkçe Tıp Kitabı Yâdigâr-ı İbn-i Şerif*, edited by Orhan Sakin (İstanbul: Merkez Efendi ve Halk Hekimliği Derneği, 2017).

149 Mustafa İsen, *Sehî Bey Tezkiresi : Heşt behest* (Kızılay, Ankara : Akçağ, 1998), 127–128.

biographical dictionary of 1546 to have been found drunk in Tahtakale,<sup>150</sup> an area of Istanbul that was a hotbed of trade and overlooked the city's wharfs. 'Aşık Çelebi, in his aforementioned biographical dictionary of poets of 1568, describes the taverns where his poets drank. In several entries, he refers to the "Tavern of Efe" in Tahtakale, in which the author himself was a frequent customer.<sup>151</sup> Locations where wine was consumed in Edirne also appear with more precision: the store for selling herbs and medicine, owned by the poet Naşūhî, was known, according to 'Aşık Çelebi, for raucous wine-drinking parties and meetings with paramours.<sup>152</sup>

In addition to Tahtakale and the city of Galata, which Latîfî's *Description of Istanbul* (1522–3) already mentions as home to numerous taverns where wine was drunk,<sup>153</sup> new locations in Istanbul emerged as hubs of wine consumption. Along the inner side of the land walls near Edirne gate – which, again, was used in the 1505 *waqfiyya* to designate the location of the "vineyards of Istanbul" – Christian houses were being converted into taverns. A government order sent in 1570 to the judge of Istanbul reminds the city's authorities that these taverns should be destroyed, as earlier orders to destroy them had not been carried out.<sup>154</sup> Wine was openly drunk in the open, especially in the city's produce gardens. The gardeners of Lanğa, where a complex of produce gardens or *bostans* arose in the 16<sup>th</sup> century, complained in the summer of 1583 that with the opening of an additional gate in the wall surrounding the gardens, people were gaining free entrance – disreputable types who "drank wine" and took vegetables without paying. According to the complaint, this initiated "fights" and a loss of income for the charitable foundation.<sup>155</sup> The order calls the interlopers *celeb tâ'ifesi*, indicating rural origin – *celeb* means livestock-dealer or drover – and "other folk," suggesting people from the lower stratum of society. The Lanğa gardens were located in the valley of the Lykus stream, which divided the city in two. Agriculture and wine drinking conjoined in the heart of the city.

From about the 1560s onward, the Ottoman government appears to have been concerned about the trade and consumption of wine. During the same time period, other forms of consumption were on the rise, such as coffee-drinking, which found fertile ground in the newly opened coffeehouses in Istanbul.<sup>156</sup>

150 Latîfî, *Latîfî tezkiresi*, edited by Mustafa Isen (Ankara] : Kültür Bakanlığı, 1990), 307.

151 'Aşık Çelebi, *Meşâ'irü'ş-Şu'arâ*, 2:884, 2:906, 2:997, 3:1507, 3:1582.

152 Ibid., *Meşâ'irü'ş-Şu'arâ*, 2:877.

153 Latîfî, *Evsaf-ı İstanbul*, edited by Nermin Suner (Istanbul: Baha Matbaası 1977), 57–59.

154 BOA, A.DVNSMHHM.d. no.9, f. 90/233.

155 BOA, A.DVNSMHHM.d. no.51, f. 42/133.

156 The Ottoman historian İbrahim Peçevi (b. 1572 –d.1650) notes that the first coffee shop was opened in Istanbul by two Syrian merchants in 1555. See Ralph S. Hattox, *Coffee and Coffeehouses: The Origins of a Social Beverage in the Medieval Near East*. Seattle: University of Washington Press, 1985, 77.

Vinegar and jams, used for pickling and sweetening food, had reportedly become scarce in Istanbul's market, as so many grapes were being channeled into wine-production. A series of government orders in 1564–5 attempted to prohibit the trade and consumption of wine in order to re-establish the supply of vinegar and jams, especially from the towns and villages on the shores of the Marmara Sea and the Aegean coast of western Anatolia that supplied the market of Istanbul.<sup>157</sup> A couple of years earlier, in 1561–2, 'Âşık Çelebi described the burning of ships loaded with wine in Haliç, the inlet separating Istanbul from Galata, which served as the main port of both cities.<sup>158</sup> This must have been a scene of horror for many of the city's wine merchants and drinkers, including the poets celebrated in 'Âşık Çelebi's biographies. However, it was not only poets who engaged in profuse drinking: western European travelers note wine-drinking as a widespread practice in taverns in which both Muslims and Christians engaged, in Istanbul and elsewhere in the Ottoman lands.<sup>159</sup> The measure to destroy ships loaded with wine appears to have been a temporary one, driven by a wave of criticism of contemporary practices regarded as non-Islamic led by the scholar Birgivi in the final years of Süleyman's reign (d.1566) – as well as over economic concerns, including the shortage of other products made from grapes.<sup>160</sup> The attempt to rein in the consumption of wine in Istanbul was part of a mid-16<sup>th</sup> century global temperance movement:<sup>161</sup> western European writers from the 16<sup>th</sup> century such as Sebastian Franck, Rober Green and Gulielmo Grataoli and others regarded consumers of wine as not being Christian.<sup>162</sup>

By the mid-16<sup>th</sup> century powerful Ottoman wine merchants were participating in global trade, with a robust trade of wine taking place in the 1560s in the Ottoman eastern Mediterranean. Joseph Nasi, an Ottoman Jewish merchant with strong political influence in the Ottoman Palace and across Europe, made a fortune trading wine between the Aegean and northern Europe. He also held the

157 BOA, A.DVNSMHHM.d. no.5, f.140/326; A.DVNSMHHM.d. no. 34, f.11/24.

158 'Âşık Çelebi, 1: 414.

159 Erick R. Dursteler, "Bad Bread and the Outrageous Drunkenness of the Turk," *Journal of World History*, 25/2–3 (2014), 212–213.

160 The government issued an order to destroy taverns in Istanbul and Galata in 1567. However, eight years later, in 1575, yet another document issued by the imperial council reveals the continued existence of taverns in Istanbul's neighborhood of Langa. See Reşad Ekrem Koçu, *Eski İstanbul'da Meyhaneler ve Meyhane Köçekleri*, Istanbul: Doğan Kitapçılık, 2002, 138–9. For a topography of 19th-century Istanbul taverns, Christoph K. Neumann, "A contribution to the Social Geography of Alcohol in Mid-Nineteenth Century Istanbul," *Şehrayin – Die Welt der Osmanen, die Osmanen in der Welt: Wahrnehmungen, Begegnungen und Abgrenzungen*, edited by Yavuz Köse (Harrassowitz, Weisbaden, 2012), 173–184.

161 W Hattox, Ralph S. *Coffee and coffeehouses: the origins of a social beverage in the Medieval Near East*. Seattle: University of Washington Press, 1985.

162 Erick R. Dursteler, "Bad Bread and the Outrageous Drunkenness of the Turk," *Journal of World History*, 25/2–3 (2014), 214–215.

monopoly on the trade of the popular wines of Crete to northern Europe, via Moldavia, during the rule of Selīm II (r. 1566–1574). 1,000 barrels of this wine, which Nasi was allowed to transport through the Bosphorus, continued to be shipped each year after his death beginning in 1580, when Abraham Moso took over the monopoly.<sup>163</sup> Joseph Nasi controlled the trade of wine from Crete to Poland, and was also a tax farmer who collected the tithe for wine and *arak* in Istanbul, Galata, and their surroundings. Nasi died in 1579, leaving for the Ottoman treasury a debt from the previous three years of a whopping 514,412 akçe, all collected as tithe from the wine and *arak* produced by Christians around Istanbul and Galata.<sup>164</sup> In 1587, the tax-farming was taken over by Mordechai Cohen. This trade lasted until 1620, when the land route from Lviv to Istanbul via Moldavia became unsafe.<sup>165</sup> Other merchants were prevented from disrupting Nasi's monopoly on the trade in Cretaeen wines. In 1568, their ships were simply not allowed to enter the Bosphorus on their route north by the Ottoman navy under the admiral Piyale Paşa.<sup>166</sup> This same period saw a global expansion of the wine trade. In the 1550s, the English, followed by Dutch merchants were trading wine on the shores of the Barents Sea soon after the search for a northeastern passage to Asia resulted in the establishment of western European trade with Russia through the Northern Dvina Delta.<sup>167</sup> Behind the increasing number of ships moving along the waterways was a growing consumption: in 1554, the Venetian envoy in London reported that the English were drinking large quantities of Levant, Spanish, Rheinisch, and French wines.<sup>168</sup>

Indeed, three decades earlier, in 1577, the Polish merchant Jan Sienieriski received from the Ottoman government privileges to purchase tax-free wine, as well as wool and horses.<sup>169</sup> Ottoman merchants, too, ventured north of Moldavia in what was a Polish-Lithuanian Commonwealth, especially after the establishment of a common Ottoman-Polish border in 1542.<sup>170</sup> The records from the

163 BOA, A.DVNSMHHM.d, no. 41, f. 478/1023.

164 BOA, A.DVNSMHHM.d, no. 41, f. 198/449; For the seventeenth century incomes from the tax farming of wine in Istanbul see Fariba Zarinebaf, *Crime and Punishment in Istanbul 1700–1800* (Berkeley: University of California Press, 2010), 100.

165 Eleonora Nadel-Golobič, "Armenians and Jews in Medieval Lviv: Their role in oriental trade, 1400–1600," in *Cahiers du monde russe et soviétique*, 20/3–4, (1979), 371.

166 BOA, A.DVNSMHHM.d, no. 7, 384/1102.

167 J.W. Veluwenkamp, "The Murman Coast and the Northern Dvina Delta as English and Dutch Commercial Destinations in the 16th and 17th Centuries," *Arctic*, vol 48, no. 3, (1995), 257–266.

168 Andre L. Simon, *The History of Wine trade in England*, vol II (Wyman & Sons, Limited: London 1907), 44.

169 Dariusz Kolodziejczyk, *Ottoman-Polish Diplomatic Relations (15<sup>th</sup>–18<sup>th</sup> Century): An Annotated Edition of 'Ahdnames and Other Documents* (Leiden: Brill, 2000), 178 ft.37.

170 See the case of Karahisarlu Eyüb who was robbed in the 1530s with 17 other merchants in the district of Kamianets Podylskyi in nowadays western Ukraine. They carried seventeen cars

western Ukrainian city of Lviv, the center of Galicia, show that Sienieriski and his Ottoman counterparts were part of a robust trade of wine between the Ottoman state and central and northern Europe.<sup>171</sup> Sienieriski would have been able to purchase Ottoman wine from western Anatolia, where the town of Edremit, instead of exporting its grapes to the market in Istanbul, was producing wine that was sent elsewhere, as the authorities in Istanbul noted in 1578.<sup>172</sup> Wine, vinegar and raisins, the produce which the author of *Revnağ-ı Būstān* with his instructions on farming techniques, tried to increase, constituted a significant portion of Ottoman trade with Muscovy and Poland.<sup>173</sup> In Ottoman Crimea, Muslims were increasingly investing in viticulture by the mid-16<sup>th</sup> century, and the city of Kefe turned into a center of transit trade with wine from Trapezund (southern Black Sea region) and the Mediterranean. Kefe also supplied wine to the large markets of northern Caucasus and eastern Europe.<sup>174</sup> In addition to wine, raisins from Ottoman lands were one of the exports to Poland contributing to the 16<sup>th</sup>-century surplus for Ottoman trade.<sup>175</sup> The creation of large vineyard complexes near Edirne, Istanbul, on the Marmara Sea coast and elsewhere in the Ottoman Balkans and Anatolia must be seen in the context of global trade in wine. Trade in general received a large boost with the Ottoman conquest of Cyprus in 1571: a letter sent in 1573 by the Ottoman imperial council to the ruler of Bukhara in Central Asia emphasizes the benefits of the conquest of Cyprus in the elimination of the obstacles for merchants and pilgrims, especially those from Algeria.<sup>176</sup> Clearly, the Ottoman government was hoping that merchants and pilgrims from Central Asia would begin using the newly secured sea routes in the Mediterranean for their trade. Fast forward to 1670, and one can see how bulky the trade of wine produced around Istanbul had become. The Venetian ambassador to Istanbul being allowed to purchase 1000 mūd, or around 720,000 liters of wine from the ports near Istanbul is a case in point; this was clearly an

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of goods worth 5000 florins. See Hacer Topaktaş and H.Ahmet Arslantürk, *Kanuni Sultan Süleyman Dönemi Osmanlı –Leh İlişkilerine Dair Belgeler (1520–1566)* (Istanbul: Okur Kitaplığı, 2014), 67.

171 Andrzej Dziubinski, *Na Szlakach Orientu: Handel Miedzy Polska a Imperium Osmanskim w XVI–XVIII wieku*. Wrocław [Poland]: Fundacja na Rzecz Nauki Polskiej, 1998, 192–194.

172 BOA, A.DVNSMHM.d no.5, 139/326; BOA, A.DVNSMHM.d, no. 34, f. 11/24.

173 Halil Inalcik, “The Ottoman State and Society: Economy and Society, 1300–1600.” In *An Economic and Social History of the Ottoman Empire. 1300–1914*, edited by Halil Inalcik and Donald Quataert. Cambridge; New York: Cambridge University Press, 1994, 292.

174 Aleksander Halenko, *Wine Production, Marketing, and Consumption in the Ottoman Crimea, 1520–1542*,” *Journal of the Economic and Social History of the Orient* 47 no. 4 (2004): 507–547.

175 Kolodziejczyk, *Ottoman-Polish Diplomatic Relations*, 188.

176 Yusuf Sarıнай, *Belgelerle Osmanlı – Türkistan İlişkileri (XVI–XX yüzyıllar)*, (Ankara: Devlet Arşivleri Genel Müdürlüğü, 2004), 6.

undertaking intended for trade and not just consumption in the residence of the Venetian baylo.<sup>177</sup>



Figure 4: A wine-drinking party depicted in an early seventeenth-century Ottoman miniature in the work *Tercüme-i Miftah-i Cifrü'l-Cami*, [Istanbul Üniversitesi Kutüphanesi, Istanbul, T. 6624.]

## Conclusion

In Edirne, where the earliest known agricultural treatise in Turkish, the *Revnağ-ı Būstān* (Splendor of the Garden), was written, the book's unidentified author was laying down roots on newly acquired agricultural land. The author states that the book was a “gift to friends” while his garden was being constructed near Edirne. His work addressed contemporary and regional concerns, especially in its focus on viticulture, a specialty of the countryside of Edirne. At the same time, the writing of the *Revnağ-ı Būstān* in vernacular Turkish was connected to the growth of a broader readership, – especially in Istanbul – interested in agricultural investments in the countryside. The early modern history of agriculture and agricultural knowledge in the Ottoman state have received relatively scant attention in the historiography, due partly to the prevailing view that the land regime in the 16<sup>th</sup> and 17<sup>th</sup> centuries was rigid and static, and that agricultural

177 Serap Mumcu, *Venedik Baylosu'nun Defterleri: 1589–1684*, (Venezia: Ca' Foscari, 2014), 307.

production was of concern to only the Ottoman peasants. However, as we have seen, archival documents indicate the widespread establishment of vineyards in Thrace by members of the military class (*‘askerī*). This class included not only those in the military service but also their families, as well as scholars, administrators of charitable foundations, preachers, merchants, and other urbanites. Rather than the product of a hermetic discourse on natural science transmitted from older scholarship, *Revnaq-ı Būstān* emerged from particular spaces that were connected to contemporary agricultural concerns.

The text’s compression into four succinct chapters and its references to the author’s own garden suggest that it was created as a kind of vernacular replacement for voluminous Arabic works such as the *Al-Filāḥa al-Nabaṭīya* (Nabataean Agriculture) and the *Filāḥa al-Rūmīya* (Roman Agriculture), both of which the author cites. The work can be linked thusly to Nelly Hanna’s argument that the rise of colloquial Arabic at the beginning of the 17<sup>th</sup> century led to the emergence of a written culture accessible to a larger number of people in Cairo.<sup>178</sup> Natural sciences were being made available to people beyond the scholarly elites, whose knowledge of Arabic and Persian gave them access to classical works. In the case of agricultural discourse, vernacularization was also related to the emergence of a more spatialized, practically oriented approach to the natural sciences, in which firsthand observations and experience were used to authorize knowledge. Knowledge related to growing grapevines is an illuminating case in point. The establishment of vineyards around Edirne and throughout Thrace by Ottoman elites required more practical forms of agricultural knowledge, such as how to protect vineyards from pests. The *Revnaq-ı Būstān* and its wide reception – as indicated by the large number of copies created – shows that far from entering into decline, Islamic natural sciences were adapting to new conditions.

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<sup>178</sup> Hanna, *In Praise of Books*, 128.

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