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The *Jābirian Kitāb al-Nukhab* and Teaching the Science of Talismans in the Abbasid Era

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Abstract

This article introduces a hitherto overlooked work on the science of talismans attributed to Jābir b. Ḥayyān, called *Kitāb al-Nukhab* (The Compendium), but widely known as *Kitāb al-Baḥth* (The Book of the Quest). The work contains a long and rich text on the natural and metaphysical foundations of the science of talismans, primarily, but also alchemy, and artificial generation. The author explicitly promotes his book as a textbook for learning talismanry that also describes the proper teacher-student relationship needed for this craft. This affords us important insights on the professionalisation of talismanry as science and craft, and a glimpse into how the occult sciences were integrated in the teaching structures of the Abbasid era.

Keywords

Esotericism – Jābirian Corpus – Jābir b. Ḥayyān – magic – professionalisation – talismans – teaching

Introduction

The name Jābir b. Ḥayyān and the Corpus attributed to him loom large in the history of science generally and the occult sciences specifically. The present study looks at Jābirian magic by focusing on an understudied and unedited text

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widely known as *Kitāb al-Baḥth* (The Book of the Quest), but whose real title is *Kitāb al-Nukhab* (The Compendium; see Appendix 1). Cross-references within the Jābirian Corpus convinced Paul Kraus that it is the latest Jābirian text.[1]

The Jābirian Corpus was probably written by a series of authors active in the late third/ninth–early fourth/tenth century, united by a conception of a Jābirian program of knowledge production, centring on the occult sciences, especially alchemy and magic.[2] The occult sciences — especially astrology, alchemy, talismanry, and medicine[3] — were part of a paradigm shift toward understanding the universe's intelligibility, largely galvanised by the translation boom between the second/eighth and fourth/tenth centuries, a period that "saw the emergence of great systematizing and synthesizing works, which, while deeply grounded in the teachings of the translated texts, acquired their own Islamicate status, structure, and flavour."[4]

Prominent astrologers in the third/ninth century were also known to be teachers, such as Abū Yūsuf Yaʿqūb b. Isḥāq al-Kindī (d. ca. 256/870), who had the prolific astrologer Abū Maʿshar al-Balkhī (d. 272/886) as a student. The latter formulated a widely influential systematic astrological theory based on Aristotelian and Neoplatonic epistemological stances, cosmological views, and theories of motion.[5] It is worth noting that al-Kindī's surviving texts that display clear signs of pedagogical purpose are concerned with the nature of astral influences and God's place in the causal scheme of existence.[6] Al-Kindī himself is widely acknowledged as the author of a text, known only in a Latin translation as *De radiis stellarum*, where he explains talismanic, invocatory, and ritualistic techniques by proposing astral rays as the medium of efficacy.[7]

As for alchemy, in her *Teaching and Learning in Islamicate Societies (800–1700)*, Brentjes draws our attention to the role of alchemy in education and teaching practical skills (dying, treatment of minerals, and so forth). Although the ways the Jābirian Corpus was taught and handed down remains

1 Kraus, *Jābir ibn Ḥayyān*, xxiii–xxvi, xxxiv–xxv; Ullmann, *Die Natur- und Geheimwissenschaften*, IV, 172.

2 On the question of authorship and dates see, Kraus, *Jābir ibn Ḥayyān*, xxxiii, lxv, xxxv, xliv, xxxiii–iv; Sezgin, *Geschichte*, 182–183, 189, 191–213; Haq, *Names, Natures, and Things*, 17–23, 31, 190–191.

3 Medicine is considered an occult science because it investigates hidden causes of diseases.

4 Brentjes, *Teaching and Learning the Sciences*, 19–22; Hill, Mathematics and Applied Science, 248–250.

5 Saif, *Arabic Influences*, passim; Adamson, Abū Maʿshar, al-Kindī, and the Philosophical Defense of Astrology, 248; Burnett, The Certitude of Astrology, 201; Lemay, *Abu Maʿshar and Latin Aristotelianism*, 178.

6 Brentjes, Teaching the Sciences, 16–17; Saif, *Arabic Influences*, 24–26, 31–36.

7 Saif, *Arabic Influences*, 27–45; Brentjes, *Teaching and Learning the Sciences*, 42–49, 108–109.

to be studied, as she notes, the development of specialisation in the natural and the occult sciences in the period from the second/eighth to the fifth/eleventh century was fostered by established models of teaching and learning. These included private tutorships at courts, in the circles of well-off ruling families, itinerant teaching, and private group meetings.[8] In addition, "teaching material" consisted of programmatic readings of and commentary on ancient texts, characterised by a dialogic mode, introductory material, compendium format, and revisionist intentions.[9]

Brentjes highlights the sparsity of scholarship on teaching the sciences in medieval Islam, considering that it is hard to trace educational activities prior to the third/ninth century. She underlines the importance of teaching as means to the professionalisation of knowledge and shows that this process involved assessing the criteria of research quality. Paying special attention to the teaching methods of al-Kindī, Brentjes suggests convincingly that many titles of al-Kindī's works mentioned by Ibn al-Nadīm served "for teaching students or introducing an autodidact to a field of knowledge."[10]

While it has been argued that al-Kindī fulfilled his teaching duties through the use of epistles addressing various philosophical issues alongside technical manuals,[11] the bulk of *Kitāb al-Nukhab* is concerned with natural-philosophic foundations of talismanry and lacks specific instructions for making talismans. We are fortunate that the author explicitly presents it as teaching material for the talismanic craft, providing an opportunity to examine how the occult sciences were integrated into early medieval educational practices.[12] *Kitāb al-Nukhab* and the Jābirian Corpus in general reflect an early manifestation of the third phase of the historical development of astronomy's vocational education which Johannes Thomann dates from 900 to 1000 CE. The earliest phase, running from 750–800 CE, focused on memorisation as the primary method, followed by a second phase where basic training involved manual and instrumental operations as corroborated by al-Khwārizmī's corpus of instructional texts.[13]

Kitāb al-Nukhab emphasizes the need for a teacher in mastering magic and asserts that every book requires guidance from a teacher. As such the author positions his own work as "teaching material" for an elementary stage of the

8 Brentjes, *Teaching and Learning the Sciences*, 34–39.
9 Ibid., 44–47; Brentjes, Teaching the Sciences, 6–7.
10 Brentjes, Teaching the Sciences, 6, 14.
11 Ibid., 17–18.
12 Brentjes, *Teaching and Learning the Sciences*, 108.
13 Thomann, From Lyrics to Lectures, 503–525.

learning process, while alluding to the importance of this step in guiding the student towards wisdom and even divine truths. Towards the end of the text, the author stresses that the ultimate goal (*ghāya*) of the science of talismans as a part of wisdom (*ḥikma*) is "reaching the knowledge of the essence of natural things and their truths and much more, attaining the status of divine people, priests/diviners (*kahan*), imams, and *badals*."[14] The practical aspects and the natural foundations of the talismanic craft can serve as stepping-stones to the ultimate goal: *ḥikma* and self-sublimation. Influenced by *Kitāb al-Nukhab*, the author of *Ghāyat al-ḥakīm* (The Goal of the Sage), widely accepted to be the Andalusian Maslama b. Qāsim al-Qurṭubī (d. 353/964), writes that one can observe in the science of talismans

> the difference between the efforts of ulama and the efforts of ignorant people who only know these things that are manifest in this mundane life, heedless to the Hereafter. This is an allusion to the esoteric aspects of the sciences (*bawāṭin al-ʿulūm*) and their secrets.[15]

In this article, I first examine how the esoteric-exoteric dichotomy frames the *Kitāb al-Nukhab* in conversation with other texts from the Corpus and beyond, such as *Ghāyat al-ḥakīm* and *Rasāʾil Ikhwān al-Ṣafāʾ* (The Epistles of the Brethren of Purity). I then investigate the didactic commentaries of the *Kitāb al-Nukhab*, highlighting its exploration of the transmission of talismanic knowledge from master to student, and the esoteric aspirations that underpin teaching and learning. Three appendices are included, providing information on the available manuscripts of *Kitāb al-Nukhab*, along with two edited and translated excerpts, one on the mutual obligations between teacher and pupil of talismanry, and the other on the role of books in gaining mastery.

14 Istanbul, Carullah 1721, fol. 117v, fol. 101v.

15 I understand *al-bāṭiniyya* — Arabic for esotericism — as an indigenous Islamic discursive concept with a long history that dates back at least to the second/eighth century. It is pivoted on Quranic exegesis and involves an intellectual and/or revelatory epistemological positioning to attain knowledge of the hidden natural, celestial and divine realities. It is motivated by personal or collective salvific investment through the enlightenment and perfection of the human soul and/or the restitution of a community. *Bāṭinī* discourse privileges the translinguistic domain necessitating the use of symbols and allegory, all of which pertain to esoteric exegetical practices and the exploration of hidden phenomena and truths; see Saif, What is Islamic Esotericism?, passim.

Mastery as an Eschatological Pursuit

Nature, according to the Jābirian author, is the first teacher, explaining that it was by witnessing spontaneous generation that we learned fermentation by imitation.[16] This gave birth to the science of talismans:[17]

> A talisman is the likeness of artificial actions to natural actions [...] Every talisman is a crafted thing that is like something natural, yet not every artificial likeness to something natural is a talisman. The meaning of talisman is distinguished by the celestial observation that characterises it.[18]

The Jābirian author clarifies two types of bodies: "Natural bodies refer to independent bodies (*al-ajsām al-muṭlaqa*), and artificial bodies (*al-ajsām al-ṣināʿiyya*) refer to crafted bodies (*mihaniyya*)" which include talismans.[19] The juxtaposition of *ṣināʿī* and *mihanī* is significant in that the latter term particularly carries a vocational indication. The root *ma-ha-na* signifies having or obtaining profession or providing a service; whereas *ṣa-na-ʿa* indicates creating, making, and devising.[20] Drawing from Plato's discourse on the importance of arithmetic, the science of the stars, geometry, and music, the author of *Kitāb al-Nukhab* explains that engaging with these sciences offers two approaches

16 Saif, The Cows and the Bees, passim; Van der Lugt, "Abominable Mixtures", 229–277; Hasse, Plato Arabico-Latinus, 31–66; Pingree, Plato's Hermetic Book of the Cow, 133–145.

17 Istanbul, Carullah 1721, fols 7v–8r.

18 Ibid., fol. 16r.

19 Istanbul, Carullah 1721, fol. 8v.

20 The most prominent medieval model proposed by scholars to understand the professionalisation of skills is "the guild." The issue of the origins and nature of guilds is a controversial one that goes beyond the scope of this article. A group of scholars represented by Louis Massignon and Bernard Lewis believed that Byzantine and Roman guild models continued into early Islamic history. S.M. Stern rejected this notion asserting that these guilds were in a degenerate state by the time Islamic civil life crystallised, and suggesting that Islam was averse to any type of organisation that guilds were unlikely to exist. Abbas Hamdani, following Albert Hourani, points out that "the fault does not lie with the assertion that guilds existed in early Islamic history; it lies with the requirement of conformity with a very limited European model." Hamdani develops this further by arguing that "If, however, one understands a guild to be an association of workers in a craft who have grouped together, one sees that guild-like groups emerged at an earlier date than is usually thought." Hamdani then argues that by the late third/ninth or early fourth/tenth century, there was a proliferation of professions and crafts with a system of apprenticeship, preferably within families, that each craft developed so distinctly that the acquisition of its know-how depended on an organisation of teaching and learning. This is a fruitful venue of investigation in the history of the occult sciences; Lewis, The Islamic Guilds, 20–37; Hamdani, The *Rasa'il Ikhwan al-Safa'* and the Controversy, 165; Hanna, Introduction, 5–6.

each yielding specific benefits. The first approach is utilitarian, exemplified by the profits gained from arithmetic in commerce and accounting, geometry in land surveying and building, astrology in agriculture, and music in holidays and festivals. The benefits of the second approach are found on the level of "intellectual matters" (*al-umūr al-ʿaqliyya*), or "the shrewdness and the discipline (*al-riyāḍa*) of the senses."[21] This is the epistemological refinement that is required for all who seek the knowledge of the verified truth behind everything in order to access *falsafa*, *ḥikma*, and *kamāl* — philosophy, wisdom, and perfection. Perfection is the knowledge of God, philosophy is the knowledge of the simple essences such as the intellect and the soul, and wisdom is the application of the sciences and of philosophy, with perfection being the goal.[22] As the author of *Kitāb al-Nukhab* says: "The repertoire of wisdom contains all the secrets of nature; through science (*bi-l-ʿilm*) their comprehension becomes attainable."[23] In addition to talismanry, nine other sciences are essential for wisdom: mathematics, arithmetic, geometry, astronomy, music, the science of qualities and conditions of natural things (*aḥwāl al-ṭabīʿiyyāt*), alchemy, the science of the nature of the planets and their actions, and the science of "what is soul and what is intellect," i.e., philosophy.[24]

The author of *Kitāb al-Nukhab* furthermore asserts that

> [Embracing] the love of wisdom (*ḥikma*) and philosophy (*falsafa*) and prioritising virtues is a profound act of courage. It involves obtaining knowledge while striving to overcome the shortcomings of the soul, namely, ignorance, corrupt thoughts that stir natural inclinations, and the dominance of base desires over wisdom. Therefore, seeking wisdom is the foremost necessity.[25]

He explicitly presents talismanry as the practical culmination of this pursuit in an excerpt worth citing in full:

> Let us gradually elevate our instruction until we reach the goal (*ghāya*) for which we are preparing ourselves and the station towards which we aim. This goal, this station, is the [establishment of a] connection (*al-iṭṭiṣāl*) with the knowledge about the distinctiveness of the natures of existents, both in their actuality and beyond; or, the goal that no

21 Istanbul, Carullah 1721, fols 135 r–v.
22 Idem, fol. 135v.
23 Idem, fol. 74r.
24 Idem, fol. 2r.
25 Idem, Fol. 61r.

> person, philosopher, or skilled person can do without, given its necessity for understanding the body (*ṣanam*) of the talismans. This pursuit carries immense benefits, realised at the stations of the perfected ones and the virtuous among their followers. Once this matter is envisioned by a human being, he ascends beyond the ranks of [ordinary] people and finds himself in the class where the mysteries of wisdom (*ghawāmiḍ al-ḥikma*) are grasped, the abodes of ultimate truth are witnessed, and profound understanding of every sublime thing is mastered by complete competence, surpassing the limitations of a book. Everything that seems big is made small when he journeys to it and attains it. God guides one towards beneficial directions and the comprehensive [understanding of] matters, for He is the Guardian and the Powerful, capable of all that He wills.[26]

The text most influenced by *Kitāb al-Nukhab*, *Ghāyat al-ḥakīm* (The Goal of the Sage), perhaps received its title from this Jābirian call for wisdom and the pursuit of a "connection" — *iṭṭiṣāl* — with the celestial and divine.[27] In the *Ghāya* we read:

> Our mentioning of these concepts and our desire for them are [for the sake of] refining the mind (*turawwiḍ bihā ʿaqlaq*) and sharpening thought. These, along with similar concepts, [comprise] the [knowledge of] spiritual talismans and the words Adam received from his Lord, comprehensible only to those who are knowledgeable and have succeeded in attaining the prize, [that is] a universal revelation through the connection (*bi l-ittiṣāl*). Obtaining comprehension of these concepts is the concern of this book.[28]

In "On Manifesting Actuality from Potentiality" (*Ikhrāj mā fī l-quwwa ilā l-fiʿl*), the Jābirian author stresses the interconnection between natural science and metaphysics, discernible only to the perfect scientist (*al-ʿālim al-tāmm*).[29] In the same text, he introduces "the Septet" (*al-subāʿiyya*), comprising seven sciences aimed at actualizing and revealing the operational potentiality of things: 1) medicine, 2) the science of occult properties, 3) talismanry, "the grand ultimate science, that no one in our time can boast of mastering it," 4) "the science

26 Istanbul, Carullah 1721, fol. 101v.

27 *Iṭṭiṣāl* is the word used for the connection of the individual (material) intellect with the active intellect.

28 Qurṭubī, *Picatrix*, 52–53.

29 Kraus (ed.), *Mukhtār*, 7.

of receiving service from (*istikhdām*) higher powers," taken as "the grand and major science unsurpassed by any other and no other is more noble," 5) the science of balance, 6) alchemy, and 7) the science of artificial generation.[30] These sciences belong to the category of "occult sciences," a term reflecting the Arabic, Persian, and Turkish terminology found in historical sources, namely *al-ʿulūm al-khafiyya*, literally, hidden or occult sciences.[31]

To these sciences, one must cultivate epistemological refinement, which allows for the recognition of multiple layers of meaning within a single phenomenon. At the level of natural bodies, one needs to observe causality and correspondences; at the intellectual level, one explores mathematical ratios and cosmological principles; and at the esoteric level, one engages in scriptural exegesis and soul-work to perceive the divine principle behind everything. However, to achieve this level of refinement, discipline (*riyāḍa*) is key. As the author of *Kitāb al-Nukhab* writes:

> The investigator of this science and the practitioner of some of its aspects must [either] possess completeness and perfection in intellect, knowledge, and discipline (*riyāḍa*) in all these foundations, or seek a teacher if his discipline falls short. His teacher will complete him, making up for the lapse of his discipline, because the teacher is the first perfection (*al-tamām al-awwal*)" (see Appendix II).[32]

According to Ikhwān al-Ṣafāʾ, the propaedeutic instructional sciences (*al-riyāḍiyya al-taʿlīmiyya*) encompass astrology, geometry, music, and arithmetic, all in accordance with the mathematical sense of the term *riyāḍiyya*. The mathematical sciences also include knowledge of "harmonious numerical and geometric ratios [...] to guide the souls of people of intellect towards the secrets (*asrār*) and the hidden (*khafiyy*) aspects of the sciences, their truths, and the meaning of their esoteric wisdom (*bawāṭin al-ḥikam*)."[33]

Elsewhere, a more "exoteric" meaning of *riyāḍiyya* is presented, emphasizing *riyāḍa* as the "discipline" in seeking one's livelihood and comfort in this world (*dunyā*)." These *riyāḍāt* (pl. of *riyāḍa*), that is "disciplines," include writing and reading, language and grammar, arithmetic and *muʿāmalāt*, poetry

30 Ibid., 48; Saif, The Cows and the Bees, 1–47.

31 In Roger Bacon's edition of Philip of Tripoli's translation of the pseudo-Aristotelian *Sirr al-asrār* as *Secretum secretorum*, "*sirr khafiyy*" is translated as "*secretum occultum*," and *al-ʿilm* (referring to the occult sciences and magic especially) is translated as *scientia occulta*. See, Badawi, *Al-Uṣūl al-yūnāniyya*, 157; Steele, *Opera hactenus*, 159.

32 Istanbul, Carullah 1721, fol. 2v.

33 Ikhwān al-Ṣafāʾ, *Rasāʾil,* I, 23–27.

and prosody, divination, magic, alchemy, "science of the letter," crafts, commerce, agriculture, livestock management, and dissemination of information. These sciences are juxtaposed with both religious (*al-sharʿiyya*) and philosophical sciences, the latter encompassing the *riyāḍiyyāt* (mathematics), logic, natural sciences, and metaphysics.[34] In the Jābirian *Kitāb al-Ḥudūd* (Book of Definitions), adopting a classification similar to the Ikhwān's, we are told that natural, mathematical, astral, and geometric sciences "pass through" the medium of philosophy.[35]

This discursive flexibility is illustrated in *Kitāb al-Nukhab*'s use of the term *riyāḍa* to signify discipline. In the Sufi context, Abū ʿAbdallāh al-Sulamī (325–412/937–1021) defines *riyāḍa* as "opposing the self and hostility towards it."[36] The Sufi exegete and hagiographer Abū l-Qāsim al-Qushayrī (d. 466/1074) notes that "no sheikh, imam, or educator (*muʾaddib*) can achieve anything without *riyāḍa*. Furthermore, one who does not receive training (*adab*) from a teacher (*ustādh*) who exposes his faults and the frivolity of his *nafs*, should never be followed for the correction of behaviour."[37]

The esoteric interpretation of *riyāḍa* also draws from the Shi'i context of the Jābirian Corpus. In a chapter of the Jābirian *Kitāb al-Khamsīn* on prophecy and imamhood, the author positions the student (*al-tilmīdh*) among those who obtain esoteric knowledge (*ʿilm al-bāṭin*), alongside prophets, imams, ascetics, philosophers (*al-faylasūf*), and others. Positioned at the highest level, just below Imam ʿAlī, is *al-bāb*, the gate, who "achieves discipline through the ultimate *riyāḍa*." The author emphasizes that this concept is derived from the Shi'i hadith having the Prophet Muḥammad declare: "I am the city of knowledge, and ʿAlī is its gate".[38]

Kitāb al-Nukhab thus underscores mastery and epistemological refinement as essential aspects of the pursuit of wisdom. Mastery of the occult sciences, including talismanry, requires not only intellectual prowess, but also discipline and a profound understanding of the interconnectedness between the natural and metaphysical realms. Through discipline and a teacher's guidance, one can attain mastery and unveil the secrets of these sciences, leading to a deeper comprehension of the universe and its underlying principles.

34 Ibid., I, 266.
35 Kraus (ed.), *Mukhtār*, 100.
36 Sulamī, *Ṭabaqāt al-Ṣūfiyya*, 274.
37 Qushayrī, *Risāla Qushayriyya*, 108.
38 Kraus (ed.), *Mukhtār*, 489–490.

Kitāb al-Nukhab as a Teaching Text

These lofty aims notwithstanding, the overwhelming tone of *Kitāb al-Nukhab* is pragmatic, showing limited concern for the means of attaining intellectual perfection. Instead, it focuses on the benefits gained from the ability to "transform adversities into pleasant situations," earning respect, driving away enemies, attracting patrons, and so on. Thus, "the value of this book lies in providing the basis for acquiring this science and opening the paths to its benefits." The approach of *Kitāb al-Nukhab* is instructional, as the author continues: "as for the rank of this book, it is the lowest and first in this journey," indicating its elementary nature in terms of the epistemological stance required for practical application.[39]

In the Jābirian text "On Manifesting Actuality from Potentiality," a relevant passage concerning teaching and the professionalisation of magic portrays an educational exchange about talismans between the author and his own master:

> Here we shall explain why a talisman is called *ṭillasm*. For this is knowledge we have shared with no one but you. We have treated it as the core of wisdom. Its craftsman (*ṣāniʿuhu*) informed me thus, saying: "O Jābir!" I answered: "I hear you, my Master (*mawlāy*)." He asked: "Do you know why a talisman is called *ṭillasm*?" I said: "No, in truth, I do not know." He said: "Think about it, for the answer is within your knowledge." So, I pondered for a year, in vain. I said: "Truly, my Master, I do not know what it is." He said: "If I hadn't raised you with my own hands and nurtured you from beginning to end, till this day, I'd say you were a fraud! Come on, figure it out!" "Yes, my Master," I said. "So, its meaning is [derived from] *musalliṭ* in the sense of domination and power casting (*taslīṭ*)." I bowed down in prostration. He said: "Your prostration to me and your forefathers honours your victory, for your ancient forefathers have prostrated to me, but your prostration, Jābir, is to yourself, you are truly above this." Again, I bowed down in prostration. He said: "Jābir, you really don't need all this!" I said: "You are right, Master." He said: "We understand your intention, you understand your intention, so now you are able to obtain [knowledge]."
>
> I explain all this in my book "On Manifesting Actuality from Potentiality." May God keep you well, the *ṭillasm* (talisman) is *musalliṭ* — (casting

39 Istanbul, Carullah 1721, fol. 1v.

> magical action) in its action, that is subduing and dominating by establishing sympathies and antipathies.[40]

Three points are of significance here. First, Jābir receives direct instructions on talismans by a master craftsman.[41] Second, there is a dramatization of the reverence expected from a student towards his master. And lastly, having attained intellectual heights, Jābir earns validation of his excellence from his master. In *Kitāb al-Nukhab*, the fundamentals of learning revolve around the student's absolute obedience and deference (see Appendix II).[42]

In the long version of the fifty-second epistle on magic, the Ikhwān explain that knowledge of astrology, divination, and even talismanry can only be obtained after mastering the foundations and branches of knowledge, demanding immersion in scholarly communities and the study of books. The passage runs as follows:

> Once they establish this [foundation], they acquire knowledge based on the prerequisites and disclose it by indicating the resulting effects and their causes. In this, people are different in degrees and vary in ranks depending on their dedication to education, perseverance in learning, acquaintance with scholars, frequency of interactions with sages, and the degree of occupation with the study of books on the knowledge of [astrology, divination, and talismanry], examining them with mental purity and patience [...] If the seekers of knowledge achieve their goal and savour its sweetness, little will they err, since correctness strengthens their insight, leading to further progress in their pursuit and diligence.[43]

From this passage we learn that both books and teachers are necessary in acquiring knowledge, not in the least because instructional books are often concise and compact. Relying solely on books without a teacher poses a serious risk of failure to the seeker of knowledge, according to the author of *Kitāb al-Nukhab*, as sciences and crafts demand time, patience, and clarification of

40 Jābir b. Ḥayyān, *Mukhtār*, 79–80. The particular and unique definition of the Arabic word *ṭillasm* by its reverse word *musallīṭ* in "On Manifesting Actuality from Potentiality" is present in *Kitāb al-Nukhab* and found its way to the *Ghāyat al-ḥakīm*, and even Ibn ʿArabī's *al-Futūḥāt al-makiyya* (V, 343–349); Istanbul, Carullah 1721, fol. 7r–v.

41 It has become widely accepted that this master is the Shi'i Imam Jaʿfar al-Ṣādiq; see, Holmyard, An Essay on Jābir b. Ḥayyān, 34–35; Ruska, Die siebzig Bücher des Ǵābir ibn Ḥajjān, 38–47, 42.

42 Istanbul, Carullah 1721, fol. 16r.

43 Ikhwān al-Ṣafaʾ, *Rasāʾil*, IV, 332; Istanbul, Süleymaniye, Atıf Efendi 1681, fol. 543r.

definitions that only a teacher can provide.[44] *Kitāb al-Nukhab* is presented as "an instructional book (*kitāb ṣināʿa*), and these books cannot afford elaboration or abrupt restraint," as this would overwhelm the learner.[45] The author adds, "a book is insurance, and if we fail to treat it as such, it is as if we betray the learner and deviate from the path of success and obedience to God in fulfilling the trust bestowed upon us by God, the Sublime."[46]

However, the author is not ashamed to contradict himself for a little promotion of his book, suggesting that it is so comprehensive that readers may not even need a teacher. He argues that:

> Full disclosure leads to clarity of meaning, thus there is no benefit in having a teacher alongside the book beyond establishing agreement on meanings, explaining what is foreign to the learner, and articulating conclusions. When a book is [as comprehensive] as this one, there is no need for the support of a teacher who explains and reveals; in a case like this, book and teacher are one from the learner's perspective.[47]

This statement can be interpreted as a "marketing" ploy rather than a disruption of the prevailing teaching model of the time. In this sense, *Kitāb al-Nukhab* is not unique in the Jābirian Corpus. In *Kitāb al-Raḥma al-saghīr* (The Abridged Book of Mercy) — a short alchemical text — we read:

> Know my brothers, may God be pleased with you, that I have previously written several works wherein I have discussed alchemy using accessible code (*bi-ramz qarīb*) understood by those with good discipline (*riyāḍa*) through reading my books.[48]

In addition to books and teachers, students must possess the innate capacity for learning. *Kitāb al-Nukhab* suggests that some exceptional people do not need education due to their inherent perfection. The text says: "Not all people are born like Plato, inherently perfect and possessing knowledge of truth, uttering the truth from within himself, without education or practice."[49]

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44 Istanbul, Carullah 1721, fol. 117v.
45 Ibid., fol. 58r.
46 Ibid., fol. 58v.
47 Ibid., fol. 46r–v.
48 Jābir b. Ḥayyān, *Rasāʾil*, 571.
49 Istanbul, Carullah 1721, fol. 17v. The author goes on with an elaborate description of the duties and responsibilities of both teacher and student. Appendix 11 presents the Arabic text and English translation of the passages about student-teacher responsibilities.

Ikhwān al-Ṣafāʾ, too, dedicate a chapter to the inherent capacity for human learning of various crafts. They write: "Know that some people are formed with the inherent capacity (*maṭbūʿ*) to learn one craft or more effortlessly," while others require considerable guidance, encouragement (*targhīb*), and correction, and even then, some are not able to gain the skills. The text then offers an astrological explanation for these tendencies.[50]

Kitāb al-Nukhab clearly positions itself within a learning continuum aiming to guide the reader towards experience (*balāgha*) and gradual advancement to higher levels (*naql*) through training (*taqwīm, tahdhīb*) according to the ancient method of exchange and dialogue (*tadhākur*). However, it stresses the elementary nature of its content, thus focussing on the utilitarian aspects of talismanry:

> The purpose of our book is to grasp the fundamentals of the science of talismans and to acquire a wide understanding of their methods, forms, actions, conditions, and tools, leading to the ultimate goal by the clearest way and the easiest path. For we have described this science in several books, sections, chapters and epistles, as teaching tools tailored to the context of each work, its rank, and the level of its addressee's comprehension and experience (*balāgha*), [taking] one's slackness in relation to one's degree of expertise [into account]. For when we composed *Kitāb al-Ḍamīr* (The Book of Inner Thoughts) a work of utmost sophistication, our mode of speech adopts brevity and conciseness of meaning, and [we limit our] allusions, following the order [adopted] by ancient generations of scholars on this matter. *Kitāb al-Niẓām fī stikhdām al-ʿulwiyyāt* (The Methods for Attaining the Service of Higher Entities) was specifically composed to address the requirements of this science, for which we are grateful to God Almighty. We have subsequently written many short, concise and limited epistles in a dialogic manner (*tadhākur*) aimed at training (*tuqawwim*) and disciplining scholars to perfection (*al-riyāḍāt al-tāmma*). Observing the enthusiasm (*shiddat taṭallu*ʿ) shown by people who have not advanced in the sciences and were not involved with them for the benefits [of this field], I composed this book and called it *Kitāb al-Nukhab* (The Compendium).[51]

50 Ikhwān al-Ṣafāʾ, *Rasāʾil*, I, 290–291.

51 Istanbul, Carullah 1721, fol. 1v.

Conclusion

In the last ten years, considerable progress has been made in framing the occult sciences within the broader context of the history of Islamicate sciences. This involves understanding their connections with religion and politics, their philosophical underpinnings, and their practical applications.[52] In this article I have explored the structures of learning and teaching that shaped, circulated, and produced occult knowledge. In addition, I have highlighted the various epistemological strategies proposed by *Kitāb al-Nukhāb* and required for a multi-levelled engagement with the occult sciences.

Ultimately, while the pursuit of wisdom and intellectual perfection is the overall goal of the Jābirian Corpus, *Kitāb al-Nukhab* focuses on practical benefits that make life better. The work caters to the elementary and utilitarian levels of talismanic understanding, while other texts within the Corpus address more advanced levels of talismanic knowledge. It is worth emphasising that the Jābirian Corpus stands as the earliest systematic articulation of the esoteric foundations for talismanic science, inspiring subsequent works such as *Rasā'il Ikhwān al-Ṣafā'* and *Ghāyat al-ḥakīm*. The ultimate goal of talismanic science, as part of wisdom, is to reach a profound understanding of the essence and truths underlying natural phenomena and beyond. The achievement of this understanding leads to the attainment of the elevated status of saints. Throughout the Jābirian Corpus, emphasis is thus placed on the esoteric aspects (*bawāṭin*) of this pursuit.

The exact features of a vocational model that may have structured the learning of talismanry, as well as magic in general, are hard to discern on the basis of the limited evidence available. Nevertheless, from many texts on astral magic dating from this period, including our *Kitāb al-Nukhab*, it is evident that the science of talismans was inseparable from the study of the stars. So, it is plausible that the dissemination and instruction of astral magical knowledge was facilitated by astrologers who were also interested in this field. Al-Kindī is mentioned in this context, but there are also anecdotes about his pupil, Abū Maʿshar al-Balkhī. One such anecdote is reported by Abū Maʿshar's own pupil, Abū Saʿīd Shādhān, and portrays his teacher at the court of Caliph al-Maʾmūn. The caliph asks the astrologer to find out whether a claim to prophecy made earlier that day was true or false. Abū Maʿshar inquires if the claimant has offered proof. The claimant then presents a ring with two bezels,

52 Saif, Leoni, Melvin-Koushki, and Yahya, *Islamicate Occult Sciences*; Melvin-Koushki and Noah Gardiner, Islamicate Occultism; Coulon, *La magie en terre d'Islam*; *Die Geheimnisse der oberen und der unteren Welt*.

causing uncontrollable laughter in those who wear it, yet remaining immune himself. Abū Maʿshar declares that "this is the action of Venus and Mercury," recognizing it as a type of talisman. But the story has a twist: the false prophet eventually renounces his claim and discloses his knowledge of magical practices, subsequently becoming "among the most knowledgeable people in the science of the stars." Abu Maʿshar acknowledges him as the "maker of the beetle talismans widely used in Baghdad households."[53] Investigating the contexts of learning and teaching astrology further, may thus offer insights into those of astral magic, enhancing our understanding of professionalisation structures in the realm of magic.

Appendix 1: Manuscripts and Title of the Work

Of the originally twelve-chapter text on talismanry widely known as *Kitāb al-Baḥth* (The Book of the Quest), three manuscripts are known:

- Istanbul, Carullah 1721: undated, incomplete, only containing the first six chapters. Dedicated as *waqf* (public endowment) by ʿAlī Abī ʿAbdallah Walī al-Dīn Jār Allah, in the year 1135/1723. 179 ff. The title given in the scribe's hand is كتاب البحث لجابر ابن حيان وهي النسخة التامة, "The Book of the Quest by Jābir b. Ḥayyān, the complete copy."[54]
- Paris, BnF, Arabe 5321: undated, incomplete and disordered, also containing the first six chapters. 103 ff. The title is given in a hand different than the scribe's, possibly the cataloguer: كتاب في الطب, "The Book on Medicine."[55]
- Ankara, Fuat Sezgin collection, this manuscript belonged to the Moroccan scholar Muḥammad b. Tāwīt al-Ṭanjī (1918–Turkey, 1974) known for his work on Ibn Khaldūn.[56] Undated and incomplete, also only containing the first six chapters. 130 ff. The title given in the scribe's hand is كتاب البحث في الطلسمات لجابر بن حيان, "The Book of the Quest on Talismans by Jābir b. Ḥayyān."[57]

To these may be added an apograph of Carullah 1721 completed on November 6, 1940. The copyist of *Dār al-Kutub*, Maḥmūd Ṣidqī, notes that his was based on

53 Abū Saʿīd Shādhān, *Mudhākarāt Abū Maʿshar*, Cambridge, Gg. 3.19, fol. 3r; Ikhwān al-Ṣafāʾ, *Rasāʾil*, IV, 288–290.

54 Istanbul, Carullah 1721, fol. 1r.

55 Paris, BnF, Arabe 5321, fol. 1r.

56 Ṭanjī, *Taʿrīf bi-Ibn Khaldūn*.

57 Ankara, Fuat Sezgin collection, Ṭanjī MS, fol. 1r. I am very grateful to Alexander Lamprakis and Prof. Hinrich Biesterfeldt for generously sharing a copy of this manuscript with me.

a microfilm owned by Paul Kraus, who was then a reader at the University of Cairo's Department of Literature.[58]

To bring this text to the fore, the title must be corrected first. Scholars have traditionally accepted the title *Kitāb al-Baḥth* primarily based on ms. Carullah 1721. Paul Kraus was not aware of mss. Arabe 5321 or al-Ṭanjī's manuscript. Fuat Sezgin, however, was acquainted with all three manuscripts, noting the possibility of it being titled *Kitāb al-Nukhab*,[59] based on a reference to the text by al-Bīrūnī (d. ca. 440/1048) in his *Kitāb al-Jamāhir fī maʿrifat al-jawāhir* (The Most Comprehensive Knowledge on Precious Stones), where he mentions Jābir calling turquoise "the stone of strength" in *Kitāb al-Nukhab fi al-ṭillismāt* (The Compendium on Talismans).[60]

Internal and external evidence indicates that *al-Nukhab* is the correct title. The scribal error likely resulted from mis-dotting the word *al-Nukhab*: البحب → النخب or البحث. In addition to al-Bīrūnī, in *Kashf al-ẓunūn* (The Dispelling of Doubts), Ḥajjī Khalīfa (1609–1675 CE) also refers to it as *Kitāb al-Nukhab* specifying that it consists of two volumes (*mujalladān*), raising the question if what we now have — only the first six chapters — makes up only the first volume, the remaining forming the second.[61]

More clues can be gleaned from the earliest known magical text that cites this Jābirian work: *Ghāyat al-ḥakīm* by Maslama al-Qurṭubī, composed in the 950s CE. Most surviving manuscripts of this work suggest a title based on the root verb *in-ta-kha-ba* (to select): *Kitāb al-Muntakhab*[62] and *Kitāb al-Nukhab*.[63] Only three manuscripts have *Kitāb al-Baḥth*.[64] Al-Qurṭubī also mentions another text by Jābir entitled *Kitāb al-Ṭillismāṭ al-kabīr* (The Major Book of Talismans) comprising fifty chapters wherein "he gathered wonders of the sciences, [including] the science of talismans, forms, occult properties, astral effects, and elementary actions and their influences, which people kept a tight grip on and were not easy to divulge."[65]

However, the strongest evidence comes from the Jābirian text itself. From the outset, the author explicitly states:

58 Cairo, *Dār al-kutub*, no. 418276, p. 754.

59 Sezgin, *Geschichte des arabischen Schrifttums*, IV, 262.

60 Bīrūnī, *Kitāb al-Jamāhir*, 253–268.

61 Ḥajjī Khalīfa, *Kashf al-Ẓunūn*, II, 1466.

62 Turkey, Çorum, ms. 3002, fol. 50r; Dublin, Chester Beatty, Ar. 3313, fol. 193v–194r; Istanbul, Hamidiye 852, fols 62v–63r; King Saud University, ms. 5751, fols 54v–55r; Istanbul, Ragip Pasha 870, fols 55r–55v.

63 Cairo, *Dār al-Kutub*, ms. 236, fol. 53r; البحب : Istanbul, Ayasofya 2443, p. 117.

64 Istanbul, Nuruosmania 2794, fols 30r–v; Oxford, Bodleian, Marsh 155, fol. 52r; Vienna, Codex Vindobonensis, ms. 470, fol. 105r.

65 Qurṭubī, *Picatrix*, 146.

وإنه كتاب البحث (؟) لأننا انتخبنا ما فيه ليصل الى علمه الدني والعالي

> This is the *Kitāb al-Baḥth* (?) because we have selected (*intakhabnā*) its content so that both commoners and the elite may attain it.[66]

This statement strongly suggest that the correct title should indeed be *al-Nukhab*.

Appendix 11: *Kitāb al-Nukhab* on Student-Teacher Responsibilities

The following edited and translated passages are based on Istanbul, Carullah 1721. These particular passages were chosen for their relevant content on the arguments of this article; namely the responsibilities of the teacher and student of talismanry, and the importance of textbooks in the study of the science of talismans. A complete edition of *Kitāb al-Nukhab* is in progress, which will present more comprehensive content on this subject.

Fol. 17r

فأمّا ما للأستاذ على التلميذ فهو أن يكون التلميذ لَيِّنًا قَبولًا لجميع أقاويله من جميع جوانبه لا يعترض عليه في أمر من الأمور وإن كان كافياً متصوِّرًا للأمر فإن ذخائر الأستاذ العالم ليس يظهرها للتلميذ إلا عند السكون إليه والإجماد له غاية الإجماد وذلك أن منزلة الأستاذ منزلة العلم نفسه ومخالف العلم مخالف الصواب ومخالف الصواب حاصل في الخطأ والغلط وهذا لا يؤثره عاقل . وأيضًا فإن التلميذ متى ما لم يكن للأستاذ على هذا المقدار من الطاعة أعطاه الأستاذ قشور العلم وظاهره والشيء الذي يقال له إلا علم الخارج والبراني ولست أريد بقولي في التلميذ أن يكون طائعًا للأستاذ في شيء من الأمور الجسمانية والظاهرة من أنواع المنافع بل إنما أريد بذلك قبول العلم والدرس وسماع البرهان علّته وحفظه وترك التكاسل والتشاغل عنه فإن تلك الأمور الأولى لا مقدار لها عند الأستاذ الرباني لأن الأستاذ في هذه الحال كالإمام للجماعة التي هو قيم بها وكالراعي السائس للأشياء التي يتولى صلاحها وإصلاحها فمتى عسرت عليه أو عسر عن التقويم فإما أن يطرحها وإما أن يتعبه تقويمها إلى أن يستقيم ولذلك ما قال أرسطوطاليس في ذلك ما قال وعمل كتبًا سماها

66 Istanbul, Carullah 1721, fol. 3r.

Regarding the student's obligations to the teacher, it is imperative that the student be amenable and receptive to all his instructions (*aqāwīl*) on all accounts without objection, even if the subject is sufficiently clear (*kāfiyan mutaṣawwiran*) to him, because the treasures of the teacher are revealed to the student only when he is quiet and fully attentive. For the station of the teacher is that of knowledge itself, and whoever contradicts knowledge, contradicts the truth (*ṣawāb*) and contradicting the truth results in mistakes and errors a person of intellect should avoid. Moreover, when the student does not display this level of obedience, the teacher gives him the husks of knowledge only, its most outer layers (*ẓāhirihi*) referred to as external (*khārij*) and superficial (*barrānī*) knowledge. By saying that the student should be obedient to the teacher, I do not mean that he should be obedient in physical things and apparent matters of benefit, but rather to accept the knowledge, study, be attentive to proofs and their causes, memorize, and abandon laziness or distractions. Because these former things are of no value to the godly teacher (*al-ustādh al-rabbānī*), for in this situation the teacher is like the imam to the community (*jamāʿa*), guiding them, like the shepherd who manages the well-being and mending of the flock in his care. Whenever he is challenged by this or it is difficult to assess, he either drops it or exerts himself to make it right until it is fixed. To this effect Aristotle said what he said and composed a book he titled

Fol. 17v

الفلسفة الخارجة وأمر أن تعطى العامة من الناس وقال إن هذه الطبقة من الناس قد ينبغي للعالِم أن يعللهم بها ويشغلهم بقرائتها عن أدوان الناس إذ كانوا متى لم يؤدَّبوا ويهذَّبوا كانوا على الناس أشرّ من الكلاب الكلبة إلا في القرط فإنه ربما أُقلب الواحد منهم بعد الواحد نجيباً. فقد قال أرسطوطاليس في المواضع التي حثّ الناس فيها على طلب العلم أنه ينبغي للإنسان أن لا يتوانى في طلب الأدب ما استطاع فبذلك الأدب تصير له حقيقة معنى الإنسانية وجوهرها وخواصها الكامل إذ كان البعض شاملًا للناس فإنه ليس كل الناس يولدون على مثال أفلاطون في تمام الكون ومعرفة الحق بذواتهم كما ظهر أفلاطون من الكمال وقول الحق من ذاته بغير تعليم والعمل به. وقد قال سيدنا أمير المؤمنين علي بن أبي طالب صلى الله عليه مثل ذلك وهو أن قال الناس ثلاثة: عالِم رباني قال الحق من ذاته ورآه وعمل به، ومتعلم على سبيل النجاة وهو الذي يؤثر الأدب ويعمل بما لقي منه، وهمج رعاع تابع كل ناعق أو ناهق لا يطلب العلم ولا يؤثره ولا يعمل به ولا حول ولا قوة إلا بالله العلي العظيم. وإن يكون التلميذ صامتًا للأستاذ وكتومًا لسره لأن التلميذ في هذه الحال كالأرض المزدرعة التي يتخذها الإنسان لصلاح حاله فإن كانت تربتها طيبة أنجب البذر فيها فأزكى وأينع الورد أمثال بذره. وإن كانت تربتها فاسدة سبخة هلك البذر

فيها ولم يزد مكانه أو أفسده وكان ما رده من ذلك قليل النفع. وقد ضربنا في ذلك أمثالًا ذكرنا فيها حال الأبله والذكي وأمثالًا ذلك. وإن يكون منقطعًا إلى الأستاذ دائم الدرس لما أخذ عنه كثير الفكر فيه فإن الأستاذ لم يمكنه أن يلقن التلميذ الرياضة بأكثر من اسمها وإنما يعلمه أصول العلم وعليه الرياضة به. وأما ذكر ما يجب للأستاذ على التلميذ فليس يحتاج منه في هذا الموضع إلى أكثر من هذا المقدار. فإن آثرت الإشتمال على جميع هذا الباب فخذه من موضعه من الرياضات وكتبها إن شاء الله تعالى. فأما ما يجب للتلميذ على الأستاذ فهو أما أولًا فامتحان قريحة المتعلم. وأريد بقول قريحته أي جوهره الذي طبع عليه ومقدار ما فيه من القبول والإصغاء إلى الأدب إذا سمعه وكيف تشبت نفسه به وتذكره له. فإذا وجده قبولًا ذا أرض زكية وجوهر يرتصع فيه أمثال المعلومات ورسومها عن قرب أو على أي حال كان ابتدأ لسقياه الأوائل التي تماثل قبوله فرواه منها. وهذه السقيا الأولى هي تداخل الرياضات وأوائلها. وبحسب سنّه أيضًا واحتناكه يكون مقدار ما يلقيه إليه أولًا. وكلما احتمل من الزيادة فليزده وليمتحنه فيما كان سقاه أولًا. فإن كان حافظًا وغير مضيع له، زاده في الشراب والتعليم. وإن

"The Exoteric Philosophy" and instructed it to be given to the common people. He also said that the scholar (*al-ʿālim*) should engage especially this class of people and keep them busy with the reading of the book, among all people, because without discipline and refinement, they become as evil as the most rabid of dogs except for the biting, and because perhaps he would be able to turn one after the other to excellence. Aristotle urged people to seek knowledge about certain subjects, saying that one should pursue cultivation by training (*adab*) to the best of one's ability, for through self-cultivation, one attains the essence and true meaning of humanity, encompassing all its traits. While some may appear well-rounded [in knowledge], not all people are born like Plato, inherently perfect and possessing knowledge of truth, uttering the truth from within himself without education or practice. Our master, Commander of the Faithful, ʿAlī b. Abī Ṭālib, God's prayers upon him, expressed something similar, saying that there are three kinds of people: the godly scholar who utters the truth from within himself, bears witness to it, and acts upon it; the learner (*mutaʿallim*) who pursues salvation, prioritising self-cultivation and acts accordingly; and the fool (*hamaj*) who follows every bawling donkey (*nāʿiq nāhiq*) without seeking knowledge, without prioritizing it, and without acting upon it. There is no might nor power except with God, Most Hight, Most Great. The student should be silent in the presence of the teacher and guard his secrets, because the student is in this case like arable land tended by humans to improve its state. If the soil is good, the seeds in it will sprout, making it flourish, and the flowers will yield more of the same seeds. If the soil is bad

and briny, the seed will perish in it, it won't spread or do any good, and will get spoiled. Whatever it yields is of little benefit. We have illustrated this when we mentioned the case of the foolish and the wise and examples like them. The student should be dedicated to the teacher, always studying and thinking over what he has received from him, for the teacher cannot teach (*laqqana*) a student discipline (*riyāḍa*) by merely mentioning its name; rather, he teaches the foundations of knowledge, and the student has to cultivate his discipline. As for the obligations of the student towards the teacher, we need not say more at this point. So if you have set your mind to acquire all [the knowledge in] this chapter, learn it from what you can find among disciplines and in books, God willing. As for the responsibilities of the teacher towards the student, the first is testing the learner's natural talent (*qarīḥa*), by which I mean, the essence of the learner, his innate qualities (*ṭubiʿa ʿalayhi*). This includes assessing the extent of his receptiveness and attentiveness to self-cultivation when introduced to it, the extent to which his soul is dedicated to it, and [how often] it is called to his mind. If he finds the student receptive, like a rich soil, with an essence in which concepts (*amthāl al-maʿlūmāt*) and their outlines (*rusūmihā*) take root in an instance and in any circumstances, he begins by watering him with elementary knowledge (*awā'il*) that matches the level of his receptiveness, and the student imbibes from it.[67] This initial watering serves as an introduction to elementary training. Age and experience also determine the initial amount of instruction. Whenever the student can handle more, give it to him, but make sure to test him on what he was initially given. If he retains it and does not waste it, increase him in drinking and teaching. But if

Fol. 18r

وجده ينسى ويتحيّل في حفظه، نقّصه من الشرب وعاتبه على ذلك عتابًا كالإيماء من غير إمعان في التصريح ثم امتحنه بعد ذلك ثانيًا وثالثًا. فإن كان جاريًا على ديدن واحد في النسيان هزه بالعتاب وأوجعه بالتقريع وبالغ في توبيخه. وإن كان عند امتحانه الأول قد استيقظ ولم يحتج إلى استزادة في الأدب وما ضاها الكشف ولا يزال على ذلك يعطيه البرّانيات والرياضيات إلى أن يأنس العلم ويتكامل صقاله ويجود تهذيبه. فحينئذٍ فلينقله إلى أوائل العلوم الداخلة وكما يقال الناطقة. ويكون ما يعطيه أيضًا الأول فالأول ولا يتخطى به المراتب فيظلمه في التعليم فإن ذلك فساد في التعليم وضرر في العقبى عظيم جدًا. قد ذكرنا في تلك المطالب فليؤخذ منها فإن الكتاب الذي نحن فيه لا يحتمل اسوته بغيره. ولا يزال في تدرّجه على ذلك من مرتبة إلى مرتبة إلى أن يبلغ إلى آخر المراتب ويصير في عداد الأستاذين الذين يجب عليهم للتلامذة مثل ما وجب له في

67 In the Platonic sense. The potential for learning implies the pre-existence of ideas that would, through learning, match up with their manifestation in nature and the cosmos.

أول مرة. وإذا بلغ التلميذ إلى هذه المرتبة من العلم ومن رموزه وصغائره ولطائف ما فيه وإن فطن التلميذ لذلك فقد وجب تعليمه وإلا أذكره الأستاذ ذلك ولم يتغافل عنه ويتجاوز عن غيره فإن ذلك محصور في العقل وفي المروّة. فإن فاعل ذلك من الأستاذين يوجب أن لا يسمع له قول ولا يصدق في شيء وذلك أنه خائن والخائن لا يكون مؤتمنًا ومن لم يكن مؤتمنًا لم يؤخذ عنه علم لأن العالِم لا يكون إلا صادقًا فذلك غير عالم وهو باسم الجهل أولى منه باسم العلم. وأيضًا فإن المؤانسة العقلية توجب الظهور بالسرائر والكوامن من ذخائر العلوم ومهج النفوس والظاهر. فذلك ما قلنا أولًا لأن السبيل للتلميذ أن يكون لينًا للأستاذ فيظهر للتلميذ وكذلك قلنا أن سبيل الأستاذ أن يكون سمحًا بما عنده من العلم وليس على كل أحد ولكن على مثل هذا التلميذ الذي رتبناه تلك المرتبة. وبالجملة فإنني أقول أن سبيل الأستاذ والتلميذ أن يكونا متعاطفين بعضهما على بعض تعاطف قبول. وهذا إنما نومئ إليه أن يكون التلميذ كالمادة والأستاذ له كالصورة وهذا إنما يكون بالقبول كالقول في ذلك السابق.

he finds him forgetful or negligent in his memorization, he should reduce his drinking and chastise him for it subtly (*ʿīmāʾ*), indirectly, then test him again a second and a third time. If he persists in the same forgetfulness, he should shake him with rebuke, hurt him with reproach, and increase his admonitions. But if the student wakes up at the first test and does not require more cultivation or further examination, the teacher should continue to give him superficial information and training until he is familiar with knowledge, has perfected his refinement and corrected his behaviour. At that point he should move him (*yanqulahu*) to the deeper sciences (*al-ʿulūm al-dākhila*) and, as they say, the rational sciences (*al-nāṭiqa*). He should give him [instructions] bit by bit, without skipping any level, because this would do the student injustice in education. Skipping levels would corrupt the education and cause great injury in the long run. We have mentioned these responsibilities elsewhere, so take it from there, for the present book is a different one. The student then continues ascending step by step until he reaches the final stage and assumes the role of a teacher, guiding students (*talāmidha*) just as he once was guided. When the student has reached this level of knowledge and has grasped all its indications, minutiae, and subtleties, becoming aware of all this, then he should take on the responsibility of teaching (*wajaba taʿlīmahu*). A teacher should remind him about this responsibility; he should not neglect him and move to another student — doing so reflects a lack of intellect and uprightness. One must not listen to a single word from such a teacher or believe anything he says, because he is unfaithful and not to be trusted. Knowledge should not be

received from anyone who is not trustworthy, a scholar should only be sincere. Otherwise, he is not a [true] scholar, and is more deserving of being called ignorant than knowledgeable. And also, intellectual company (*al-muʾānasa al-ʿaqliyya*) necessitates the revelation of secrets and the profound aspects of the treasures of knowledge, the inspiriting of hearts, besides outer knowledge. This is what we initially mentioned: the student's best recourse is to be amenable to the teacher, who then reveals knowledge to the student. Likewise, we have said that the best way for the teacher is to be generous with sharing his knowledge — not with everyone, but only with the student we have positioned at that rank. In summary, I say that the best way for both the teacher and the student is to be empathetic (*mutaʿāṭifan*) towards each other in the spirit of mutual acceptance. This is what we mean when we say that the student is like matter, and the teacher is to him like form, and this is only achieved by acceptance, as previously mentioned.

Appendix III: On the Role of the Book

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فإن كتابنا هذا كتاب صناعة وكتب الصناعات لا تحتمل بسط القول ومنعه السريع لئلا يطول على المتعلم فينسى ما قد يقصد إلى تعليمه. وأما الباقي فلئلا تختلط المعاني ولا يفهم المتعلم أيضًا غاية كل فصل منها. فإنا وإن كنا نذكر في كتب الصناعة ما هو للصناعة ونطرح البسط ونتبعه الشرح فإنا لسنا نترك شيئًا مما يجب أن يكون من أدوات الصناعة وتابعًا لها إلا أتينا به ليكون القول. والكتاب تأمين ولأنا متى لم نفعل ذلك كنا كأنا قد خنا المتعلم وزلنا عن طريق النجوح والطاعة لله في تأدية الأمانة التي أعطاها الله تعالى.

For our book is an instructional (*kitāb ṣināʿa*), and instructional books cannot afford elaboration or abrupt restraint, lest they become too lengthy for the student, causing him to forget the purpose of his learning. As for the rest, it is to ensure that meanings are not mixed up, allowing the student to understand the objective of every chapter. Indeed, in instructional books we always mention what pertains to that craft, put forward explanations that are followed by commentaries, and leave no tool or part of it unmentioned. A book is insurance, and if we fail to treat it as such, it is as if we betray the learner and deviate from the path of success and obedience to God in fulfilling the trust bestowed upon us by God, the Sublime.

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