Rana Bayram

SOUND, MUSIC AND KNOWLEDGE IN THE EPISTLES OF THE BRETHREN OF PURITY (*RASĀʾIL IKHWĀN AL-ṢAFĀʾ*)

Thesis submitted to the Department of Historical Studies,

Central European University Private University, Vienna, in partial fulfillment of the requirements of the Master of Arts degree in Comparative History, with a specialization in Late Antique, Medieval, and Renaissance Studies.

Supervisors:

György Laszlo Gereby, Professor, Department of Historical Studies

Nadia al-Bagdadi, Professor, Department of Historical Studies

Central European University Private University

Vienna

May 2025

Copyright Notice

Copyright © Rana Bayram, 2025. "Sound, Music and Knowledge in the Epistles of the Brethren of Purity (*Rasā'il Ikhwān al-Ṣafā'*)" - This work is licensed under Creative Commons Attribution-NonCommercial-NoDerivatives (CC BY-NC-ND) 4.0 International license.

For bibliographic and reference purposes this thesis/dissertation should be referred to as:

Bayram, Rana. "Sound, Music and Knowledge in the Epistles of the Brethren of Purity (*Rasā'il Ikhwān al-Ṣafā'*)." Master's thesis, Central European University, 2025.

Author's Declaration

I, the undersigned, **Rana Bayram**, candidate for the MA degree in Comparative History, with a specialization in Late Antique, Medieval, and Renaissance Studies, with a specialization in Interdisciplinary Medieval Studies declare herewith that the present thesis is exclusively my own work, based on my research and only such external information as properly credited in notes and bibliography. I declare that no unidentified and illegitimate use was made of the work of others, and no part of the thesis infringes on any person's or institution's copyright. I also declare that no part of the thesis has been submitted in this form to any other institution of higher education for an academic degree.

Vienna, 28 May 2025

Rana Bayram

Abstract

This thesis examines the epistemologies of sound and music in the work of the Ikhwān al-Ṣafā' or, as it is commonly translated, the "Brethren of Purity." This is achieved not through a solitary examination of their writings on music, but through a contextualization of their ideas on sound and music within larger medieval Islamicate literature (7th-14th centuries), and within the Ikhwānian corpus itself. The research especially uses Steven Feld's concept of "acoustemology" as its main framework for understanding how "knowing through sound" features in medieval Islamicate literature *en large* as a significant modality of knowing through relational ontologies. It argues that the Ikhwān's portrayal of sounds and music (which they defined as "well-composed sound") can only be understood as part of this larger picture, where sound features as an epistemic medium in a relationally-conceived cosmos. In their Epistles, sounds transmit knowledge in a Neoplatonizing hierarchy, from more perfect to less perfect realms, thus revealing higher realities and enabling humans to transcend existing ontological hierarchies.

Acknowledgements

This thesis is a result of many intellectual exchanges that I have been part of throughout my years as a Bachelor's and Master's student, at Boğaziçi University and here at the CEU. It would take tens of pages to enumerate all the dear people who directly and indirectly contributed to the development of my ideas and to this thesis.

Firstly, I would like to express my deep gratitude to my supervisor, Prof. György Gereby, whose intellectual guidance and thoughtful critiques were influential throughout the development of this thesis. I also thank my second reader, Prof. Nadia al-Bagdadi, for her comments and engagement with the work during the writing process.

I would like to thank my instructors for Arabic and Ancient Greek, Dr. Rashed Daher and Dr. Samuel Gabor. My first instructor for Ancient Greek was Dr. Athanasia Stavrou at Boğaziçi, and I owe her gratitude for getting me started on this beautiful language. I thank my piano instructor at Boğaziçi, Dr. Emine Serdaroğlu, for her excellent teaching of music theory and practice. Among my professors at Boğaziçi and at the CEU, I would like to especially thank Assoc. Prof. Derin Terzioğlu, Assist. Prof. Akif Yerlioğlu, Assoc. Prof. Yaşar Tolga Cora, Prof. Selim Deringil, Assoc. Prof. Yücel Terzibaşoğlu, Prof. Katalin Szende, Prof. Tijana Krstic, Prof. Istvan Perczel, in chronological order of the classes I have taken from them.

I also thank Prof. Peter Adamson for accepting me as a participant to his seminars at LMU, Munich; and all the precious colleagues whom I met in different cities in Europe and in Türkiye. I especially thank the ISAM Library for providing most of the sources and literature that I have used in the thesis, and becoming a sort of second home in the months that I spent in Istanbul.

Finally, this thesis would not be possible without the support of my family and friends. I thank them for their company at all times and their recommendations. I dedicate this thesis to the memory of my late grandfather, Ziya, who would be proud to see this coming to fruition.

Table of contents

Copyright Notice
Author's Declarationiii
Abstracti
Acknowledgementsii
Table of contentsiii
Framework and Introduction
Authorship, dating, and the goals of the <i>Rasāʾil</i> : a preliminary note
State of the field: music philosophies in medieval Islam
Sound: a useful category of analysis
Note on editions
Chapter 1
Hearing as Knowing: aurality of knowledge in Islamicate literature
Hierarchy of senses: Western "visuality" versus Eastern "aurality"?
Cosmic sounds and relational ontology: a theoretization of knowing through hearing 22
Qur'ānic cosmos and sound: sound as transmitter of knowledge
Revelation as sound
All things "hear" before they exist?
The bigger picture: How is it useful for us to understand the Ikhwān al-Ṣafā'?41
Chanter 2

From the Sensible to the Intelligible: Musical perception and concept-formation in the <i>Rasā</i> '
4
Ikhwān's main influences in Graeco-Arabic transmissions
The Ikhwānian scheme of Neoplatonic emanation: numbers and hypostases
Empiricist Neoplatonisms? A preliminary anatomy of the Ikhwān's epistemology 4
Inner senses: from sense perception to concept-formation
Sound and cosmic hierarchies
Spiritual-cosmological ranks and sound perception
How music acts on the soul
Conclusion6
Bibliography6

Framework and Introduction

The Epistles of the Brethren of Purity (henceforth *Rasā'il Ikhwān al-Ṣafā'*) was the work of a group of philosophers from ninth- or tenth-century Basra. Their work has been described as "one of the best (if not the best) representatives of the encyclopaedic genre in pre-Mamlūk Islamic literature," for its being "substantial in size, impressively panoramic in scope, insistently dedicated to the teaching of scientific knowledge, obsessively concerned with its inner organization, and overtly eclectic in its use of a wide range of sources." Although this thesis will focus more on specific epistles within this encyclopedia (mostly Epistle 5 and 24), it is useful to make a brief introduction to the authorship and dating of the work, to contextualize it within the historiography of medieval Islam. I will first delineate the lines of research around the questions of authorship, dating, and aims of the *Rasā'il*, then provide a note on the literature on music in medieval Islam, and then introduce the new sound studies approaches that I am using in lieu of the more traditional focus on music theory. I will then add a note on the editions of the *Rasā'il* which I am using.

^{1.} Literature on the Rasāʾil is considerably large within the field of Islamic studies. Introductory works include Godefroid de Callataÿ, Ikhwân al-Safaʾ. A Brotherhood of Idealists on the Fringe of Orthodox Islam, (Oneworld, 2005); Ian Richard Netton, Muslim Neoplatonists: Introduction to the Thought of the Brehtren of Purity (Edinburgh Unviersity Press, 1991); and Carmela Baffioni, "Ikhwān al-Ṣafāʾ," in Stanford Encyclopedia of Philosophy, https://plato.stanford.edu/entries/ikhwan-al-safa/. Yves Marquet, s. v. "Ikhwān al-Ṣafāʾ," in The Encyclopedia of Islam (2nd ed.), vol. 3 (1971), 1071–1076; Susanne Diwald, Arabische Philosophie und Wissenschaft in der Enzyklopädie Kitāb Iḥwān aṣ-Ṣafā; die Lehre von Seele und Intellekt (Wiesbaden: Harrassowitz, 1975); and Nader El-Bizri, "Prologue," in Epistles of the Brethren of Purity: The Ikhwān al-Ṣafāʾ and their Rasāʾil: An Introduction, ed. Nader El-Bizri (Oxford University Press, 2008), 1–32.

^{2.} Godefroid de Callataÿ, "Encyclopaedism on the Fringe of Islamic Orthodoxy: The Rasāʾil Ikhwān al-Ṣafāʾ, the Rutbat al-ḥakīm and the Ghāyat al-Ḥakīm on the Division of Science," *Asiatische Studien* 71(3) (2018): 858.

Authorship, dating, and the goals of the *Rasā'il*: a preliminary note

The authorship question has traditionally been approached by using Abū Ḥayyān al-Tawḥīdī's³ (d. 1023) statement to the Būyid vizier Ibn Saʿdān during a conversation. In this exchange, Ibn Saʿdān questioned Abū Ḥayyān on the activities of Zayd b. Rifāʿa. Abū Ḥayyān told him that Zayd had held bad company during his time in Basra and supplied four names that Zayd was engaging with as the authors of the *Rasāʾil Ikhwān al-Safāʾ*: "al-Maqdisī, Abu'l-Ḥasan 'Alī b. Hārūn al-Zanjānī, Abū Aḥmad al-Nahrajūrī, and al-ʿAwfi." Al-Tawḥīdī later wrote down this conversation in his *Kitāb al-Imtāʿ wa'l-Muʾānasa* ("The Book of Enjoyment and Companionship" composed between 983-985)5, which was seen as an authoritative a source of reference on the authorship of the *Rasāʾil* for most scholarship until Husayn Hamdani expressed doubts on it in 1932.6

The traditional acceptance of al-Tawḥīdī's statement placed the *Rasā'il*'s dating into the second half of the tenth century. However, recent evidence shows that the work must have been composed either in late ninth or early tenth century. It was already a known fact that *Rasā'il*'s intellectual impact did not limit itself to the Middle East. However, recent scholarship has discovered the precise dating of *Rasā'il*'s reception in al-Andalus (nowadays Spain), thereby elucidating the *terminus ante quem* for the work's composition. In 1996, Maribel Fierro found that not long after its composition, probably in the early 930s, the *Rasā'il* caught the attention

^{3.} A major figure in the tenth-century intellectual landscape of Baghdad. For further information, see Everett K. Rowson, "The Philosopher as Litterateur: Al-Tawḥīdī and his Predecessors," *Zeitschrift für Geschichte der arabisch-islamischen Wissenschaften* 6 (1990): 50–92.

^{4.} Abbas Hamdani, "Abū Ḥayyan Al-Tawhīdī and the Brethren of Purity," *International Journal of Middle East Studies* 9, no. 3 (1978): 345–53.

^{5.} Salah Natij proposes an alternative translation for the title as "Book of Instructive and Sociable Conversations," see Salah Natij, "La Nuit Inaugurale de Kitāb Al-Imtā' Wa-l-Mu'ānasa d'Abū Ḥayyān al-Tawḥīdī: Une Leçon Magistrale d'adab." *Arabica* 55, no. 2 (2008): 228.

^{6.} Hamdani, "Abū Ḥayyān," 352.

of an Andalusian $b\bar{a}tin\bar{\imath}$ scholar by the name of Maslama ibn Qāsim al-Qurṭubī (d. 964) who was on a learning journey (rihla) to the East at the time.⁷ Perhaps owing to his interest in the esoteric sciences, al-Qurṭubī copied the $Ras\bar{a}$ il and brought it back to the Iberian Peninsula upon his return, along with treatises by Sahl al-Tustarī and Dhū l-Nūn al-Miṣrī⁸ that he collected during his travels.

The *Rasā'il* then provided the basis for the composition of al-Qurṭubī's two seminal books, the *Rutbat al-Ḥakīm* ("Rank of the Sage") on alchemy, and the *Ghāyat al-Ḥakīm* ("Goal of the Sage") on talismanic magic. Maslama prefaces *Rutbat al-Ḥakīm* (completed in 950) saying that "the present work is but a summary of the *Rasā'il*: "This book of ours, which we have entitled the 'Rank of the Sage,' we have conceived as a summary of those numerous epistles [*Rasā'il*]:" *Ghāya* (completed in 959) does not explicitly cite the *Rasā'il*, but it quotes extensively from it – about sixty passages were quoted either verbatim or in close phrasing. Then translated into Latin via Spanish, this work assumed the title of *Picatrix*, and found popularity among Renaissance intellectuals such as Marsilio Ficino, Pico délia Mirandola, Peter of Abano and Henry Cornileus Agrippa. 12

Until 1996, the authorship of these two books was a contested issue. For hundreds of years, both of them were falsely attributed to Maslama al-Majrīţī, an eleventh-century celebrity

^{7.} Where he encountered the *Rasā ʾil* is another unanswered question. We learn about the places he visited during his journey from Maribel Fierro, "Bāṭinism in Al-Andalus: Maslama b. Qāsim al-Qurṭubī (d. 353/964), Author of the 'Rutbat al-Ḥakīm' and the 'Ghāyat al-Ḥakīm (Picatrix)," *Studia Islamica*, no. 84 (1996): 111-2, which Fierro gathered through consulting biographical dictionaries and other secondary literature. According to Fierro's list, Maslama visited and studied in Qayrawān, Tripoli, Crete, Alexandria, Miṣr (Old Cairo), Qulzum, Judda, Mecca, Basra, Wāṣiṭ, Ramla, Baghdad, Sayraf, Yemen, and Syria.

^{8.} Both names are related to the transmission of "Hermetic literature," Böwering, *The Mystical Vision*, 50-52; and to Jābir ibn Ḥayyān.

^{9.} De Callataÿ and Moureau, "Again on Maslama," 334.

^{10.} De Callataÿ and Moureau, "Again on Maslama," 333.

^{11.} The Warburg Institute of the University of London has been producing impactful scholarship on the process of transmission of *Ghāya* into Renaissance esoteric literature, see David Pingree's study "Between the Ghāya and Picatrix. I: The Spanish Version," is a *Journal of the Warburg and Courtauld Institutes* 44 (1981): 27–56.

^{12.} See for example, how Ficino refers to it as one of the influences of his *De Vita* 3, along with al-Kindī and Plotinus: Denis J. Robichaud, "Ficino on Force, Magic, and Prayers: Neoplatonic and Hermetic Influences in Ficino's *Three Books on Life*." *Renaissance Quarterly* 70, no. 1 (2017): 58.

mathematician. Maslama ibn Qāsim al-Qurṭubī, on the other hand, as a little-known tenth-century Andalusian *bāṭinī*, remained innocently unsuspecting. Since his authorship has been authoritatively established in 1996 by Maribel Fierro, ¹³ there is a growing body of literature on his life and intellectual production, which is also increasingly shedding light on the intellectual posterity of the Ikhwān al-Ṣafā'.

These recent findings supply convincing evidence that the traditional dating of the $Ras\bar{a}$ il to the second half of the tenth-century is not anymore supportable. The references to the $Ras\bar{a}$ il in two works composed respectively in 950 and 959 necessarily set a terminus ad quem for the composition date of the work, as was pointed out earlier by Abbas Hamdani. The studies of Maribel Fierro and other scholars of al-Andalus suggest that Maslama copied the $Ras\bar{a}$ il most probably during the early 930s, on his rihla to the East – which suggests that the work was already completed by then. Maslama makes this following statement about $Ras\bar{a}$ il in his Rutbat $al-Hak\bar{a}m$:

They did not know who had compiled them [the $Ras\bar{a}$ 'il] nor from where they had been formulation, the intelligent people presumed that they were part of a work pertaining to the same epoch as that in which they were living, although they did not know who had compiled them.¹⁵

It sounds likely that the *Rasā'il* was completed at least a few decades before Maslama's visit, since even though he visited Basra and Baghdad at the time, ¹⁶ he did not at any point establish contact with the Ikhwān themselves – who they were and where they had lived was

^{13.} Fierro, "Bāṭinism in Al-Andalus."

^{14.} Hamdani, "Abū Hayyan," 350.

^{15.} De Callataÿ and Moureau, "Again on Maslama," 335. Wa-lam ya ʿlamū man allafahā wa-lā min ayna allafat ghayru an al-ḥadhāq limā da ʾabbū ʿalā muṭāla ʿatihā li-istihṣānihim iyyāhā wa-isti ʿdhābihim li-alfāzihā ʿalamū annahā min ta ʾlīfī ʿaṣrihim alladhī hum fīhi wa-lam ya ʿlamū man allafahā. MS Beşir Ağa 505, fol. 2v, ll. 14-16, MS Ragıp Paṣa 965, fol. 49v, ll. 2-4. The transcription and translation by de Callataÿ and Moureau. 16. Fierro, "Batinisim in al-Andalus," 112-3.

equally mysterious to him as it was to everyone else. This statement, therefore, gives more weight to Abbas Hamdani's earlier dating of the $Ras\bar{a}$ 'il. 17

Besides its timing and authorship,¹⁸ what is equally obscure about the *Rasā'il* is why it was composed in the first place. What motivated this group of philosophers to undertake the writing of what they perceived as a comprehensive encyclopedia? Some of our clues as to the motivations of the Ikhwān in composing the *Rasā'il* come from their statements in the work itself. Defining their ultimate goal (*al-ghāya al-quswā*) as reaching a gnosis (*ma'rifa*) of God; they dwell on their particular creed (*i'tiqād*) in the "Epistle on the Creed of the Brethren of Purity and the Path of the Divinely Guided Ones" (*Risāla fī bayān i'tiqād ikhwān al-ṣafā' wa-madhhabi l-rabbāniyyīn*).¹⁹ The Epistle starts with an interesting analogy that probably portrays the Abbasid society as having a "hidden disease." It is the story of a doctor visiting a city full of sick people who were in denial of their condition, and relates how the doctor cured the whole population of the city by giving medicine to only one person at a time, in secret. The story goes (in summary):

A wise doctor entered a city where people were afflicted with a hidden disease (*maraḍ khafī*). When he tried to tell them about their condition, they did not listen to him or admit their sickness. He then stopped preaching to them, and started to treat them with gentleness. One day, a respectable man among them approached him for medicine for another illness. The wise doctor gave him a special medicine, which cured him of all his afflictions: his body felt lighter, his mind sharper, his vision clearer. In gratitude, the man asked the wise doctor how he could reciprocate his benevolence. The wise doctor said: "I would like you to help me cure another

^{17.} Hamdani, "Abū Ḥayyān."

^{18.} In addition to the literature cited above, a recent claim on the authorship of the *Rasā'il* was made by Guillaume de Vaulx d'Arcy in his PhD dissertation (currently made inaccessible). De Vaulx d'Arcy argues that Aḥmad ibn Ṭayyib al-Sarakhsī, who is known to be al-Kindī's pupil and assistant, is the author of the Rasā'il Ikhwān al-Ṣafā'. Part of his claims can be read in his "Aḥmad b. Al-Ṭayyib al-Saraḥsī, réviseur de l'Introduction Arithmétique de Nicomaque Gérase et rédacteur des Rasā'il Iḥwān al-Ṣafā'," *Arabic Sciences and Philosophy* 29 (2019): 261-83. 19. *Rasā'il* IV, 14-41.

brother (*tu ʿīnunī ʿalā mudāwāti akhin min ikhwānika*)." So the man brought another man to be cured. "They continued this process, treating and influencing one person after another, and each newly converted individual repeated the same words as the first. Thus, they spread their influence in the same way, until the pattern continued like the saying of the first one." (Rasāʾil IV, 14-15)

If this is an analogy for the society the Ikhwān found themselves in, what kind of sickness did they perceive in the Abbasid society? And what cure did they foresee? Here, there are two main possible interpretations. A camp of scholars who believe in the Ikhwān's Ismā'īlī commitments (most notably Marquet and Hamdani), have argued that the Ikhwān were envisioning a political overturn of the Abbasid caliphate. Accordingly, in other parts of the corpus, the Ikhwān alluded to the Abbasid regime as a force of evil on Earth, ²⁰ and the vision of this brotherhood was to challenge the existing Abbasid political authority by engaging in the Ismā'īlī counter-movement of underground missionaries (*da'wa*), which eventually aimed to establish the rival Fatimid Dynasty in 909 CE. ²¹ Other scholars have interpreted the Ikhwān's mission as less about political change and more about spiritual and intellectual renewal. ²² For the purposes of this thesis, I will not take any position on the Ismā'īlism of the Ikhwān and their goals in composing the *Rasā'il*. What seems evident though, is that they saw attainment of higher knowledge as an important way of spiritual purification.

^{20.} Yves Marquet's quotation in "Les Cycles de La Souveraineté Selon Les Épîtres Des Iḫwān Al-Ṣafā'," *Studia Islamica*, no. 36 (1972): 57-58; but the reference to *Rasā'il* is missing. The exact quote does not explicitly mention the Abbasid caliphate, but it remarks that the evil people are dominant in their day.

^{21.} Abbas Hamdani is the strongest proponent of this idea: "The Brethren of Purity are not just intellectuals with a vision of a utopia but are actually involved in a secret underground movement subversive to the 'Abbasid Caliphate. I maintain that the Brethren of Purity were a group of intellectuals working as a thinktank for the Fatimid Da'wa and preaching an activist philosophy of change needed in the Muslim world." Abbas Hamdani, "The Name 'Ikhwan al-Safa'." *Digest of Middle Eastern Studies* (1999): 5. Also see Mourad Kacimi, "Los *Ijwân alsafâ*' contra el estado abasí. Acción política en relación con los diversos estados de su época," *Al-Qantara: Revista de Estudios Árabes*, 40(2) (2019): 355–384. For an evaluation of these claims, see Carmela Baffioni, "Prophecy, Imamate, and Political Rule among the Ikhwan al-Safa'." In *Islam, the State and Political Authority* (2011): 75-92.

^{22.} See for example, Liana Saif, "Ikhwān al-Ṣafā"'s religious reform and magic: beyond the Isma'ili hypothesis," *Journal of Islamic Studies*, 30(1) (2019): 34–68.

State of the field: music philosophies in medieval Islam

The Ikhwān's Epistle on Music (*Risāla fī mūsīqā*) is listed as the fifth epistle within the *Rasā'il*. Immediately preceding it are the epistles on geometry, arithmetic, and astronomy; together making up the classical *quadrivium*. If we think of the Epistle on Music as part of the larger knowledge production on music in ninth-century Baghdad, it can be compared to the separate-standing music treatises of al-Kindī (d. 870) and Isḥaq al-Mawsilī (d. 850), although little is known about the latter. The Epistle is significant in various aspects: firstly, it is a testimony to the musical knowledge production in contemporary Baghdad,²³ secondly, it is a valuable source of music theory from the period, and thirdly, but not finally, it is an enlightening source for the philosophical framework in which the Ikhwān placed music and sound. It is this philosophical outlook, rather than any treatments of musical theory and practice, that is of interest to our exploration.

The secondary literature on music in medieval Islam can be divided roughly into three categories of inquiry. First, there is the literature dealing with the **music history** in the Islamicate world – most often the social and cultural aspects of musical practice. George Dimitri Sawa's work on the musical life in Abbasid Baghdad²⁴ and Lisa Nielson's *Music and Musicians* in the Medieval Islamicate World²⁵ are examples of this line of research. Secondly, another category of inquiry is **music theory** in the medieval Islamicate world; which consists of an investigation of how musical elements such as modes, rhythmic conventions, musical notation

^{23.} See Mohammad Sadegh Ansari, "Learning and Patronizing the Science of Music among the Elite of Medieval Baghdad," *Journal of Abbasid Studies* 6 (2019: 123-46. A revised version of the article was published as the second chapter of Ansari's book, see "Learning the Science of Music in Medieval Baghdad," in *The Science of Music: Knowledge Production in Medieval Baghdad and Beyond* (Cambridge University Press, 2025).

^{24.} George Dimitri Sawa, *Musical and Socio-Cultural Anecdotes from Kitāb al-Aghānī al-Kabīr: Annotated Translations and Commentaries*, (Islamic History and Civilisation) XV (Leiden: Brill, 2019); and *Music Performance Practice in the Early 'Abbāsid Era*, (Toronto: Pontifical Institute of Mediaeval Studies, 1989).

^{25.} Lisa Nielson, Music and Musicians in the Medieval Islamicate World: a Social History (London: I. B. Tauris, 2021).

and composition techniques evolved through time. Mainly developed under the incentive of ethnomusicological research that emerged in the Europe in the nineteenth century, this kind of inquiry aims to reconstruct historical musical traditions of non-European cultures. 26 The pioneering studies of Rodolphe d'Erlanger²⁷ and Henry George Farmer²⁸ can be said to belong to this category of research, but their work does have significant overlaps with the music historical approach mentioned just previously.

Thirdly, there are the studies that look into medieval Islamicate music philosophies. This category of research situates itself within a larger body of literature dealing with the intellectual history and/or history of philosophy of Islam. In its current definition, music philosophy is an effort to think about the "fundamental questions about the nature and value of music and our experience of it."29 Unlike studies of music history, it does not concern itself with the social and cultural realities of music; and unlike studies of music theory, it does not concern itself with the inner workings of music such as pitch, rhythm, and scales and how music is organized within itself (of course, unless these considerations are relevant for understanding

^{26.} In its earliest stages, the discipline of ethnomusicology developed in a symbiotic relationship to nineteenthcentury colonialism. The earliest substantial studies on Middle Eastern music were done in the beginning of the nineteenth century by Guillaume Villoteau (1759 – 1839), who contributed two volumes to the twenty-four-volume Déscription de l'Egypte, penned by a group of researchers accompanying Napoleon during his stay in Egypt from 1798-1801 (the Rosetta Stone was also discovered by the same group of researchers during this time). One volume was a detailed organological survey called Déscription historique, technique et litteraire, des instrumens de musique des orientaux, and the other was a survey of music theories derived from Greek antiquity in the works of early theorists such as al-Fārābī, Etat moderne de l'etat actuel de l'art musical en Egypte. Another nearcontemporary contribution was orientalist Edward William Lane's (1801 – 1876) An Account of the Manners and Customs of Modern Egyptians (London, 1836) which painted a vivid picture of Egyptian social life and the place of music therein. These two volumes, along with others, provided the basis for the study of Middle Eastern music for the following generations. See Philip V. Bohlman, "The European Discovery of Music in the Islamic World and the 'Non-Western' in 19th-Century Music History," *The Journal of Musicology* 5, no. 2 (1987): 147–63. 27. Rodolphe D'Erlanger, La musique arabe (6 vols.) (Paris : Paul Geuther, 1930-59).

^{28.} Alongside D'Erlanger, Henry George Farmer is arguably the most prodigious authors of the past century, who wrote on the history of Middle Eastern music. He was criticized for arguing for the influence of medieval Arabic music theories on the subsequent development of Renaissance music in Europe; see for example, The Arabian Influence on Musical Theory (London: H. Reeves, 1925) and Historical Facts for the Arabian Musical Influence, (Ayer, 1930). Other works include bibliographies such as The Arabic Musical Manuscripts in the Bodleian Library: A Descriptive Catalogue With Illustrations of Musical Instruments (London: W. Reeves: 1925) and The Sources of Arabian Music: An Annotated Bibliography of Arabic Manuscripts Which Deal With the Theory, Practice, and History of Arabian Music (Bearsden, 1940); his works on music history include Byzantine Musical Instruments in the Ninth Century (London: H. Reeves, 1925) and A History of Arabian Music to the XIIIth Century (London: Luzac, 1929), although this is not a comprehensive list of his work.

^{29. &}quot;Philosophy of Music," Stanford Encyclopedia of Philosophy.

more abstract scrutinizations on music). It is rather an effort to think *in abstract terms* about music, often incorporating questions that relate to ethical, psychological, epistemological, and aesthetical themes.

The research on music philosophies in the medieval Islamicate world is still in its developing stages, not because of the novelty of the field, but because there are countless possible approaches and tools that can be incorporated into it (as I will shortly show in the coming sections). A pertinent problem in the existing literature, as far as the present author has been aware, is the lack of a clear understanding of the distinction between music theory and philosophy. For example, although it is a valuable scholarly effort in its own right, Allāh-Wīrdī's Falsafat al-mūsīqā al-sharqiyya ("Music Philosophy of the East")³⁰ does not quite achieve its promise of being a comprehensive account of music philosophy in medieval Arabic texts: the majority of the book is dedicated to medieval Arabic musical modes, rhythms, and their supposed effects – in other words, what we would, as modern readers, set aside as medieval Arabic music theory.³¹

Fortunately, not all literature suffers from this lack of distinction. An exclusive study of music philosophy in the medieval Islamicate world was made by Fadlou Shehadi in his *Philosophies of Music in Medieval Islam*.³² Shehadi intended this as an introductory survey consisting of various authors who have written texts that could be considered to have music

^{30.} Mikhail Khalīl Allah-Wīrdī, Falsafat al-mūsīqā al-sharqiyyah, (Damascus, 1948).

^{31.} Still, when we are speaking about medieval Arabic texts on music, drawing clear-cut lines between the theory and philosophy of music is not easy, given that such a distinction was not explicitly made by the authors themselves. Part of the music *philosophy* expressed in these texts, especially in the work of al-Kindī and Ikhwān al-Ṣafā', is the notion that each tone, mode, and rhythmic cycle has its own individual characteristics corresponding to extra-musical elements (humors, astral bodies, angelic/demonic beings, physical elements, stones, metals, *et cetera*). In other words, unlike the modern distinctions we make between music theory and philosophy, in medieval Arabic literature the theoretical components of music are integrated into an overarching philosophical framework that connects musical and extra-musical elements in a web of correspondences.

^{32.} Fadlou Shehadhi, Philosophies of Music in Medieval Islam, (Leiden: Brill, 1995).

philosophical content – namely al-Kindī (d. 870) Ikhwān al-Ṣafā', al-Fārābī (d. 951), Ibn Sīnā (d. 1037), and al-Ḥasan al-Kātib (d. 11th century). Based on their appropriation and elaboration of Greek philosophical tradition, he categorizes Ikhwān al-Ṣafā' and al-Kindī as having "Pythagorean" orientations in music philosophy, and categorizes al-Fārābī and Ibn Sīnā's music philosophy as "Aristotelian." Shehadi's conception of Pythagoreanism, for this context, is a tendency to argue for "multiple relations between the musical and the non-musical," that is, positing correspondences between musical elements and celestial, bodily, and other non-musical phenomena.³³

Apart from these works I have cited, there is not a detailed study of the Ikhwān al-Ṣafā''s music philosophy that I am aware of, perhaps with the exclusion of secondary literature in non-European languages.³⁴

Sound: a useful category of analysis

"Sound Matters," a series of three articles published in *Speculum* (2016)³⁵ pointed out to the multiplicity of avenues for historical **sound studies** available to medievalists. These articles began with the observation that writers throughout history have remarked on the elusive nature of sound – its ubiquity in human experience, its intangibility, and its mysterious effect

^{33.} Shehadi's use of the "Pythagorean school" here is not without its problems. In light of recent research, it seems more correct to me to term the Ikhwān's affinity for correspondences as part of their broader esotericist leanings. Liana Saif uses the term "intellectual bāṭinism (esotericism)" to refer to a conceptual system which put forward that "[h]idden phenomena and causes can be understood through intellection and reason," which made up the "epistemological foundation of texts such as the Ġāyat al-ḥakīm and the Rasā'il Iḥwān al-Ṣafā'." According to Saif, the works of authors such as Abū Ma'shar (d. 886), al-Kindī (d. c. 873), Ikhwān al-Ṣafā', and Maslama ibn Qāsim al-Qurṭubī (d. 964) demonstrated this tendency to look for hidden causalities as part of their natural philosophy. She contrasts this approach with the "revelatory bāṭinism (esotericism)" of al-Ghazālī (d. 1111) and Ibn al-ʿArabī (d. 1240), which prioritized mystical experience as the only way to reach the truth. See Liana Saif, "From Ġāyat al-Ḥakīm to Šams al-Ma'ārif: Ways of Knowing and Paths of Power in Medieval Islam," Arabica 64, no. 3/4 (2017): 318.

^{34.} An example from secondary literature in Turkish is Yalçın Çetinkaya's İhvan-ı Safa'da Müzik Düşüncesi ["Ikhwān al-Ṣafā''s Music Philosophy"] (Istanbul: İnsan Yayınları, 2015). Although being a valuable contribution to literature, the book follows a rather descriptive approach and reiterates Shehadi's designation of the Epistle on Music as representative of a "Pythagorean" approach in Arabic music philosophy.

^{35.} Susan Boynton, Sarah Kay, Alison Cornish, and Andrew Albin, "Sound Matters," *Speculum* 91, no. 4 (2016): 998–1039.

on the soul. Yet, sound is never a fixed entity; it is momentary and ephemeral. Even when recorded – whether in medieval texts, musical notation, or other forms – the written word fails to fully capture the experience of sound as it unfolds.

The emergence of sound studies, particularly within the fields of history and classics in the United States, has been instrumental in creating this scholarly direction. Jacques Attali's *Noise: A Political Economy of Music* (1977) was a pioneering work in this area, examining how shifts in musical and artistic forms (superstructures) often prefigure broader economic and political transformations. Attali suggested that a society's music reveals its underlying structures, famously asserting: "In noise can be heard the codes of life, the relations among men." His work, drawing upon ideas akin to Spengler's cultural morphology, ³⁶ has been foundational in thinking about sound as a historical and social phenomenon. Another pioneering work in the field was R. Murray Schafer's *The Soundscape* (1977)³⁷ which took up the historical study of sonic environments and later influenced a efflorescence of literature on historical soundscapes.³⁸

³

^{36.} Oswald Spengler asserted that the cultural forms of a society are closely linked to its forms of war-making and politics: "The forms of the arts linked themselves to the forms of war and state policy. Deep relations were revealed between political and mathematical aspects of the same Culture, between religious and technical conceptions, between mathematics, music, and sculpture, between economics and cognition-forms. Clearly and unmistakably there appeared the fundamental dependence of the most modern physical and chemical theories on the mythological concepts of our German ancestors, the style-congruence of tragedy and power-technics and up-todate finance, and the fact (bizarre at first but soon self-evident) that oil-painting perspective, printing, the credit system, long-range weapons, and contrapuntal music in one case, and the nude statue, the city-state, and coincurrency (discovered by the Greeks) in another were identical expressions of one and the same spiritual principle." Oswald Spengler, The Decline of the West, vol. I (New York: Knopf, 1939) 47. Attali's position is not so essentializing as Spengler's, however, it depends on the assumption of a close kinship between cultural and economic forms. An economist by trade, Attali rather approaches the question on a Marxian vein: essentially agreeing on Engels's insistence on a "reciprocal interaction" between economy and superstructure, Attali reverses the traditional perception of superstructure (read: music) as revealing and mimicking the economic and social conditions of society. Instead, he looks at how superstructure creates the base, i.e. how music (re-)composes the economy and the society. Jacques Attali, Noise: Political Economy of Music (Minnesota: Minnesota University Press, 1985) x-xi.

^{37.} R. Murray Schafer, The Soundscape: Our Sonic Environment and the Tuning of the World (Rochester, VT, 1977)

^{38.} For example Lauren E. Osborne, "Sound-History of the Quran", *MIDÉO* [Online], 37 (2022) is an exploration on the early recitations of the Qur'ān and how they constituted a sound-world for believers in the early centuries of Islam.

The field of classics, in particular, has produced groundbreaking scholarship that explores the various dimensions of sounds and aurality in antiquity. Guy Lachenaud's *Les Routes de la voix: L'Antiquité grecque et les mystères de la voix* (2013) and John Curtis Franklin's *Kinyras: The Divine Lyre* (2015) integrate archaeological and historical evidence with literary material to reflect on the roles of voice and musical sound in ancient societies. Further advancing this line of research, *Sound and the Ancient Senses* (2019), edited by Shane Butler and Sarah Nooter, invites classicists to think and write about both the experiences and theories of sound in antiquity. From the mythological Orpheus as the archetypal musician to the Platonic conception of musicality as an inherent element of cosmic order, the volume examines the ways sound mediated human-divine relationships: "The sounds act as omens, bearers of meaning in a system of fate and prophecy that is as great and unknowable as the music of the spheres." ³⁹

A similar effort manifested itself in the field of Islamic studies at large. Although not focused on sound in particular, we can enumerate the ERC-funded project "The Senses of Islam: a Cultural History of Perception in the Islamic World (SENSIS)" led by Christian Lange from Utrecht University as a welcome response to the sensory turn in historiography. Established in 2017, the project aims to write "a cultural history of the senses in the Islamic world" and to "explor[e] how different historical, geographical, social, and intellectual contexts determined the ways in which Muslims across the Islamic world experienced and understood sight, sound, smell, taste, and touch. In short, how are we to conceive of the Islamic sensorium, past and present?" The volume *Islamic Sensory History*, ⁴¹ published within the framework of SENSIS, brings together scholars of the Islamic past to publish analyses and translations of

^{39.} Shane Butler and Sarah Nooter (eds.), "Introduction," in *Sound and the Ancient Senses* (Routledge, 2019) 6. 40. "About", SENSIS. https://sensis.wp.hum.uu.nl/about/

^{41.} Christian Lange and Adam Bursi, (eds.) *Islamic Sensory History*, (Leiden, The Netherlands: Brill, 29 Jul. 2024).

primary material that relates to the historical experiences of senses – including a partial translation from Ikhwān al-Ṣafā''s treatment of the five senses. ⁴² Another project, "Ottoman Auralities," takes as its subject the auditory history of the late Ottoman Empire. ⁴³

However, SENSIS is primarily concerned with cultural history, and Ottoman Auralities has a wider scope but is concerned with the Ottoman ways of relating to modernity through sound. These leave a gap around sound studies in the intellectual history of Islam – with all its interesting implications for the study of sufism, exegetical and *kalām* literature, and of course, philosophy. In "Sound, Music, and Religion," (2015) Isabel Laack explores how a novel focus on *sound* could benefits studies of religions across time and space. She regrets that scholars of religion so far have not extended their studies to sound phenomena outside of their traditional focus on music: "Within the study of religion, the history of research on the audible is limited and has favored music over sound in general." She notes that this has only been challenged in the last decades with works such as Joyce Irwin's volume *Sacred Sound* (1983), 45 and Lawrence Sullivan's *Enchanting Powers* (1997), 46 and Guy Beck's *Sacred Sound* (2006b). These studies usually question the relationships between the place of sounds and music in rituals and theologies of various traditions.

In the realm of Islamic studies, the research on religiosity and sounds is still heavily focused on music rather than on wider sound phenomena; apart from some new and interesting volumes such as Patrick Eisenlohr's *Sounding Islam* (2018)⁴⁷ and some articles by authors such

^{42.} Christian Lange, "The Ikhwān al-Ṣafā' (Fourth/Tenth Century) on Sense and Sensibilia," In *Islamic Sensory History*, (Leiden, The Netherlands: Brill, 2024) doi: https://doi.org/10.1163/9789004515932 019

^{43.} The full title of the project is "Ottoman Auralities: Histories of Sound and Media in the Late Ottoman Empire and Eastern Mediterranean (1789-1922)," see their website for more information: https://ottomanauralities.com/44. Isabel Laack, "Sound, Music and Religion: A Preliminary Cartography of a Transdisciplinary Research Field." *Method & Theory in the Study of Religion* 27, no. 3 (2015): 220

^{45.} Joyce Irwin (ed.), Sacred Sound: Music in Religious Thought and Practice (Oxford: Oxford University Press, 1984).

^{46.} Lawrence Sullivan, ed. *Enchanting Powers: Music in the World's Religions* (Cambridge MA: Harvard University Press, 1997).

^{47.} Patrick Eisenlohr, *Sounding Islam: Voice, Media, and Sonic Atmospheres in an Indian Ocean World.* 1st ed. University of California Press, 2018.

as Michael Sells, ⁴⁸ Ann E. Lucas, ⁴⁹ Jeanette Louili and Annelies Moores, ⁵⁰ and Deborah Kapchan. ⁵¹ Apart from these contributions on contemporary issues on sounds and religiosity, Jean During et al.'s and "Hearing and Understanding in the Islamic Gnosis" (1997) ⁵² closely approximates the research interests of this thesis by its inquiry of the relationship between sound imageries and gnosis in the Islamic sufi literatures. These studies, among others, have informed this thesis in the ways that they engaged with non-musical sound in understanding larger historical frameworks.

Although there is a commendable body of literature in the forming, the research on music and sound in the Islamicate world has not concentrated sufficiently on the question of how music, as a sound phenomenon, was imagined to fit into a wider epistemological framework in the minds of medieval Islamicate authors. Considering that aurality was an important component of narratives of revelation and gnosis, the audition of music is also a subject of epistemological consideration. To Ikhwān al-Ṣafā', music $(m\bar{u}s\bar{\iota}q\bar{a})$, defined as well-composed sound $(alh\bar{a}n\ mu\ 'talifa)^{53}$ was neatly situated in an imagined hierarchy of being and knowing, predominantly Neoplatonizing in its orientation.⁵⁴ Although their Neoplatonism has

_

^{48.} Michael Sells, "Sound and Meaning in 'Sūrat al-Qāri'a," *Arabica* 40, no. 3 (1993): 403–30; and "Sound, Spirit, and Gender in Sūrat Al-Qadr," *Journal of the American Oriental Society* 111, no. 2 (1991): 239–59.

^{49.} Ann E. Lucas, "Caught between Heaven and Hell: The Morality of Music and Cosmologies of the Past in Persian Writings on Listening, c. 1040-c. 1800." *Asian Music* 43, no. 1 (2012): 91–130.

^{50.} Jeanette Jouili and Annelies Moors, "Introduction: Islamic Sounds and the Politics of Listening." *Anthropological Quarterly* 87, no. 4 (2014): 977–88.

^{51.} Deborah Kapchan, "The Aesthetics of the Invisible: Sacred Music in Secular (French) Places." *TDR* (1988-) 57, no. 3 (2013): 132–47; and "Learning to Listen: The Sound of Sufism in France." *The World of Music* 51, no. 2 (2009): 65–89.

^{52.} Jean During, Max Peter Baumann, Marianne Bröcker, and Linda Fujie. "Hearing and Understanding in the Islamic Gnosis," *The World of Music* 39, no. 2 (1997): 127–37.

^{53.} My translation from "inna l-mūsīqī huwa al-ghinā'... wa l-ghinā' huwa alḥān mu 'talifa." See Wright's critical edition, On Music, '' [page 21 on the Arabic text]. But a more literal rendering would be "well-composed melodies," since laḥn (pl. alḥān) usually refers to a melody. See

^{54.} For the Ikhwān's Neoplatonism, see Ian Netton, *Muslim Neoplatonists: Introduction to the Thought of the Brethren of Purity*, (Routledge: 2002). The Ikhwān's epistemology was largely Aristotelian in its being rooted in sense perception, however, they combined their theory of knowledge with a Neoplatonic narrative of spiritual ascension, as will be seen especially in the Chapter 2.

been well-attested in literature, this question of how music was placed in their Neoplatonizing world picture has not been sufficiently addressed.

The main theoretical inspiration for this question was Steven Feld's anthropological research into the poetics and epistemologies of listening, based on his fieldwork among the Kaluli people of Papua New Guinea. In the years following his fieldwork, Feld developed "acoustemology," a distinct conceptual approach that focused on the epistemic significance of sound. To use his own words, acoustemology investigates "sounding and listening as a knowing-in-action: a knowing-with and knowing-through the audible." This knowing through sound did not take place in a world of fixed entities, but it took place in a relational context. As will be explored in the coming chapters, sound was a mediator within ontological systems based on relations of being and knowing. When applied to the Neoplatonizing world-picture of the Ikhwān, sound (in general) and music (in particular) gain importance in their placement inside what we may describe as a highly relational ontology composed of imagined correspondences and hierarchies.

Note on editions

The first and only critical edition of the Ikhwān al-Ṣafā''s epistle on music was published in 2011, by the collaborative effort of the Institute of Ismaili Studies (London) and Oxford University Press, edited by Owen Wright.⁵⁷ The Institute aims to publish a "multi-authored, multi-volume Arabic critical edition and annotated English translation of the fifty-

^{55.} Steven Feld, Sound and Sentiment: Birds, Weeping, Poetics, and Song in Kaluli Expression. Duke University Press, 1982.

^{56.} Steven Feld, "Acoustemology," in Keywords in Sound, ed. David Novak and Matt Sakakeeny, (Duke University Press, 2015), 12.

^{57.} Owen Wright (ed.), On Music: an Arabic Critical Edition and Translation of the Epistle 5, (Oxford University Press in collaboration with the Institute of Ismaili Studies, 2011). Before this, Amnon Shiloah had made an annotated translation of the Epistle on Music, in L'Epitre sur la musique des Ikhwān al-Ṣafā': traduction annotée, (P. Geuther, 1964).

two epistles,"⁵⁸ and has acquired for this purpose some of the earliest and most complete manuscripts of the *Rasā'il* from the world's libraries. So far, sixteen epistles were made available with critical editions and annotated translations, and they prove to be the most scholarly respected editions of the *Rasā'il* to date. Owen Wright's edition of the Epistle on Music mainly uses six manuscripts dating from the twelfth to fifteenth centuries.⁵⁹ In my thesis, I use this critical edition when I refer to the Epistle on Music.

In cases where I cite other epistles in the corpus for which there is not a critical edition, I am using the four-volume 1957 Beirut edition of the *Rasā'il*.⁶⁰ Although this is an uncritical edition, it is still oft-cited by much of the secondary literature. Citing this specific edition would thus be helpful for the reader for purposes of comparison. For the translations of the Qur'ān, I am using *The Clear Qur'ān* of Mustafa Khattab.⁶¹ Unless otherwise stated, all translations from primary Arabic sources are mine, with the exception of quotations from Wright's critical edition of the Epistle on Music.

^{58.} Nader el-Bizri, "Foreword," in *On Music: An Arabic Critical Edition and English Translation of Epistle 5*, ed. Owen Wright (New York: Oxford University Press, 2012) xxi.

^{59.} Manuscript location and number (date): Atif Efendi 1681 (1182), Tehran Mahdavi 7437 (1242), Esad Efendi 3638 (ca. 1287), Bibliotheque Nationale 6.647-6.648 (ca. 1296), Feyzullah 2130 (ca. 1304), Köprülü 870 and 871. On Music, 2.

^{60.} Ikhwān al-Ṣafā', Rasā'il al-Ikhwān al-Ṣafā wa khullān al-wafā (4 vols.), ed. Buṭrūs al-Bustānī (Beirut: Dār Ṣādir, 1957).

^{61.} Mustafa Khattab (trans.), The Clear Qur'ān: a thematic English translation of the message of the Final Revelation, (Book of Signs Foundation, 2016).

Chapter 1

Hearing as Knowing: aurality of knowledge in Islamicate literature

Hierarchy of senses: Western "visuality" versus Eastern

"aurality"?

Before I embark on exploring aurality as a basis of knowledge in Islamicate literature, a few remarks on the "hierarchy of the senses" are in order. As Christian Lange pointed out in his introduction to the volume *The Sensory History of the Islamic World*⁶², the modern scholarship on senses and Islam has adopted at least some perspectives from the "sweeping narrative" of the historical prioritization of sight over hearing in the Western societies, and the prioritization of hearing over sight in "African and Oriental" societies. This perceived dichotomy was employed to explain how "Islam's supposed denigration of vision ... undermine[d] the ability of Muslim peoples to modernize."⁶³ In a defensive stance, Lange writes:

However, this sweeping narrative, influential though it may be, does not stand the test of even a cursory examination of the evidence. The Qur'ān clearly elevates sight above hearing; Plato's and Aristotle's notion of a hierarchy of the senses, in which sight is preeminent, was well known in classical Islam; and the Iraqi-Egyptian physicist Ibn al-Haytham (Alhazen, d. 1040 CE) analyzed the mechanics of vision so successfully that he is counted, to this day, among the fathers of modern optics. In other words, the ratio of the senses in Islamic culture (a contested singular), and the relationship between the two distal senses in particular, is by no means evident; a more nuanced and balanced account is long overdue.⁶⁴

Notwithstanding Lange's rightful call for a more nuanced understanding of how we understand Islam's conceptualization of senses, there are a few critical points to be made: the

^{62.} Christian Lange, "Introduction: The sensory history of the Islamic world," *The Senses and Society* 17:1 (2022): 1-7.

^{63.} Lange, "Introduction," 1.

^{64.} Lange, "Introduction," 1.

assertion here that the Qur'ān "elevates sight above hearing" is not supported by any reference. And although Muslim authors were well aware of the epistemology of Plato and Aristotle, this did not mean that they would likewise prioritize sight in their epistemology – not to mention that Ibn Haytham's (d. 1040) studies on vision, although truly impactful, are difficult to connect to an epistemological discourse, as far as I am aware. I should also point out that Lange's (and his project's) main interest is in cultural history, and perhaps thence the underemphasis on the *conceptual* history of the senses in Islamicate literature.

But understanding the relationship between aurality and knowledge in Islamicate literature already requires going beyond the Muslim reception of Greek philosophical discourses – it requires a well-rounded study of a variety of sources categorized under the subjects of theology ($kal\bar{a}m$)⁶⁵, exegesis ($tafs\bar{i}r$), $s\bar{u}fism$, history ($ta'r\bar{i}kh$), philosophy (falsafa), jurisprudence (fiqh), as well as the primary sources of these branches of literature, which are the Qur' $\bar{a}n$ and the Prophetic traditions ($had\bar{i}th$) – the list being incomprehensive. What I am attempting to present here is only a tiny fraction of this much-needed effort. I will first outline the debate to which Lange refers to above regarding the "hierarchy of senses," and some of the related problematic arguments in modern literature.

Hans Blumenberg's 1957 essay "Licht als Metapher der Wahrheit" ("Light as a Metaphor of Truth") looked at metaphorical uses of light in philosophical literature to find that it was not only represented as the opposite of darkness, but it was also the medium through which truth was revealed.⁶⁶ Plato's allegory of the cave, for example, (*Republic* 514a-518c) is

Brill; London: Luzac & Co, 1986) vol. 3, 1141-50.

^{65. &}quot;Theology" is not a direct translation for *kalām*, but at best an approximation for readers who are unfamiliar with Islamic thought. For the various definitions of *kalām*, see Louis Gardet, "Ilm al-Kalām," in *Encyclopedia of Islam 2nd edition*, ed. Bernard Lewis, Victor Louis Ménage, Charles Pellat, and Joseph Schacht (Leiden: E. J.

^{66.} Hans Blumenberg, "Licht als Metapher der Wahrheit: Im der philosophischen Begriffsbildung," *Studium Generale* 10, no. 7 (1957): 432–447; from Hans Blumenberg, *Ästhetische und meta phorologische Schriften*, ed. Anselm Haverkamp (Frankfurt am Main: Suhrkamp, 2001), 139–171. An English version was published in *Modernity and the Hegemony of Vision*, ed. David Michael Levin (Berkeley: University of California Press, 1993), 30–86.

a narrative of *coming to know* the real things ($\tau \delta \ \alpha \lambda \eta \theta \epsilon \zeta$) through the medium of light ($\tau \delta \ \phi \tilde{\omega} \zeta$); in this way, the cave-dweller's epistemic journey is conveyed through a visual metaphor. These visual metaphors were not only ubiquitous in philosophical texts throughout history as Blumenberg has shown, but they are still also viable in day-to-day expressions that relate to intellectual undertakings: "we deem certain passages "obscure" until we read an "illuminating" commentary on them that makes us "see" what had "at first sight" seemed incomprehensible." 67

Aristotle's epistemology prioritized sight over other senses, which would set up a dominant stance in the Greek philosophical tradition:

All men naturally desire knowledge. An indication of this is our esteem for the senses; for apart from their use we esteem them for their own sake, and *most of all the sense of sight*. Not only with a view to action, but even when no action is contemplated, we prefer sight, generally speaking, to all the other senses. The reason of this is that of all the senses sight best helps us to know things, and reveals many distinctions. (Metaphysics 980a: 21-7)⁶⁸

To Aristotle, part of the reason why sight was superior was its ability to provide information about many objects without the need to interact with them. This lack of interaction, especially in contrast to senses such as touch, smell or taste, made sight superior in "purity" (διαφέρει δὲ ἡ ὄψις ἀφῆς καθαριότητι, *Nicomachean ethics*, X, 5, 1176a1). ⁶⁹ The reason for the perceived superiority of sight over hearing is not explicitly stated, however, one can gather some clues from studies such as Hans Jonas's "Nobility of Sight" (1954)⁷⁰, where he concludes that this perceived superiority of sight in Greek philosophy is related to the *simultaneity* of

^{67.} João Diogo R. P. G. Loureiro, "Listening to the Voice of Reason: Sound-Related Metaphors for the Philosophical Experience in Aristotle and Augustine," In *Sonus in metaphora: La rhétorique sonore et musicale dans l'Antiquité*. Ed. Francesco Bué, Angelo Vannini. 231-44. (2021) 231.

^{68.} Aristotle, *Aristotle in 23 Volumes*, vols. 17-18, trans. Hugh Tredennick, (Cambridge, MA: Harvard University Press; London, William Heinemann Ltd. 1933, 1989). Italics mine.

^{69.} Loureiro, "Listening," 234.

и

^{70.} Jonas, H., 'The Nobility of Sight. A Study in the Phenomenology of the Senses.' in: Philosophy and Phenomenological Research 14 (1954), 507–519.

image and perception, and the specific ways in which sight interacted with the concept of distance.

Michael Ong's *Orality and Literacy* (1982) made a clear-cut distinction between an Eastern culture that prioritized orality, and a Western one that prioritized literacy. Ong borrows Jousse's term *verbomoteur* to describe "Eastern" societies, which should mean that they operate predominantly on speech and sounds.⁷¹ He contrasts this to a post-Enlightenment Western society that is rather moved and operated by images:

The cultures which we are here styling verbomotor are likely to strike technological man as making all too much of speech itself, as overvaluing and certainly overpracticing rhetoric. In primary oral cultures, even business is not business: it is fundamentally rhetoric. Purchasing something at a Middle East souk or bazaar is not a simple economic transaction, as it would be at Woolworth's and as a high-technology culture is likely to presume it would be in the nature of things. Rather, it is a series of verbal (and somatic) maneuvers, a polite duel, a contest of wits, an operation in oral agonistic.⁷²

Ong also inferred, by his designation of the Eastern societies as "verbomotor," that this overwhelming presence of "speech" and "rhetoric" made these societies "more communal," and "less introspective" than the post-Enlightenment Western society dominated by literacy:

Primary orality fosters personality structures that in certain ways are more communal and externalized, and *less introspective* than those common among literates. Oral communication unites people in groups. Writing and reading are solitary activities that throw the psyche back on itself.⁷³

Last, but not least, Ong differentiated between these oral and literate societies on the basis of what senses dominated their perception of the world. He argued:

^{71.} Walter J. Ong, *Orality and Literacy: the Technologizing of the World* (New York: Routledge, 2002), 66. The author indicates that Marcel Jousse used the term *verbomoteur* to describe Hebrew and Aramaic societies, cf. Marcel Jousse, "Études de Psychologie Linguistique: Le Style Oral Rythmique et Mnémotechnique Chez Les Verbo-Moteurs." *Archives de Philosophie* 2, no. 4 (1925): 1–240. Ong himself, however, expands the use of the term "to include all cultures that retain enough oral residue to remain significantly word-attentive in a personinteractive context (the oral type of context) rather than object-attentive." This includes the ancient Greek society, and it seems to include the Middle East for the most part of its history – even presumably in its current state, however Ong is ambiguous on which societies he has in mind.

^{72.} Walter J. Ong, *Orality and Literacy: the Technologizing of the World* (New York: Routledge, 2002), first published in 1982: 68.

^{73.} Ong, Orality, 69.

A sound-dominated verbal economy is consonant with aggregative (harmonizing) tendencies rather than with analytic, dissecting tendencies (which would come with the inscribed, visualized word: vision is a dissecting sense). It is consonant also with the conservative holism (the homeostatic present that must be kept intact, the formulary expressions that must be kept intact), with situational thinking (again holistic, with human action at the center) rather than abstract thinking, with a certain humanistic organization of knowledge around the actions of human and anthropomorphic beings, interiorized persons, rather than around impersonal things.⁷⁴

It should be understood from this quoted passage that Ong's "primary oral world" is a sweeping generalization stretched over non-Western societies. The prevalence of sound over sight in these societies explains, for Ong, why these societies are perceivedly lacking in analytical and abstract thought in comparison to Western societies.

In writing this chapter, I am aware of the possible implications of arguing for the prevalence of aurality as the primary mode of knowledge-reception and knowledge-transmission in medieval Islamicate societies: that of unassumingly joining the ranks of these earlier authors who used this same argument in order to claim a clear divide between Western and non-Western modes of perceiving the world, worse still, to claim the intellectual superiority of the former. My argument does not set off from this line of thought, nor is it inspired from any piece of literature whose claims resemble Ong's or similar authors. Nor does my argument aim to engage in the age-old debate of the "hierarchy of the senses." Rather, it seeks to elucidate the epistemic functionality of hearing and listening, as it is represented in the primary sources from the period – to eventually understand the epistemic value of music and sound in the *Rasā'il* of Ikhwān al-Ṣafā'.

^{74.} Ong, Orality, 73-4.

Cosmic sounds and relational ontology: a theoretization of

knowing through hearing

Andrew J. Hicks's *Composing the World* (2018) examines the concept of *harmony* as a means to understand the cosmos in the twelfth-century Platonic commentary tradition. ⁷⁵ In the "Prelude" to the book, he argues that after all these centuries that passed between us and these Platonic thinkers, aurality is still central to our knowledge of the universe – by pointing out that recently (2015) the Laser Interferometry Gravitational Observatory detected the "sound" of two black holes colliding billions of years ago. This giant and ancient event had reached the Earth in the form of gravitational waves, which could be transduced into a sound signal and thus could be "heard." Besides confirming Einstein's earlier theory on space-time disruption, the sonic phenomenon created by this collision prompted the scientists to exclaim: "We can hear the universe!" As Hicks agrees, this auditory contact with the universe bears epistemological significance – when we can *hear* the universe, we are, in a sense, better able to *know* it:

These sounds are "spectacular" and "herald a revolution in our understanding of the universe." The import of these sounds is epistemological. The sounds qua spectacular (in the etymological sense of *spectaculum* as an act of seeing) allow us insight into the unseen and invisible forces of nature; as transduced sonic objects, they encode information about their sound producers and "[tell] us things about the universe that we have no other way of discerning." Put another way, to hear the cosmos is to experience

^{75.} Andrew J. Hicks, *Composing the World: Harmony in the Medieval Platonic Cosmos*, (New York: Oxford University Press, 2017).

^{76.} Hicks, Composing, 1. LIGO's website provides helpful explanation on gravitational waves: "Gravitational waves are 'ripples' in space-time caused by some of the most violent and energetic processes in the Universe. Albert Einstein predicted the existence of gravitational waves in 1916 in his general theory of relativity. Einstein's mathematics showed that massive accelerating objects (things like neutron stars or black holes orbiting each other) would disrupt space-time in such a way that 'waves' of undulating space-time would propagate in all directions away from the source. These cosmic ripples would travel at the speed of light, carrying with them information about their origins, as well as clues to the nature of gravity itself. The strongest gravitational waves are produced by cataclysmic events such as colliding black holes, supernovae (massive stars exploding at the end of their lifetimes), and colliding neutron stars ... While the processes that generate measurable gravitational waves are among the most energetic and violent the Universe has to offer, by the time the waves reach Earth millions or billions of light years away, they are thousands of billions of times smaller. In fact, by the time gravitational waves from LIGO's first detection reached us, the amount of space-time wobbling they generated was 10,000 times smaller than the nucleus of an atom! LIGO was designed to make such inconceivable, exquisitely small measurements." "What are Gravitational Waves?" LIGO Caltech, ligo.caltech.edu/page/what-are-gw (accessed 29 April 2025).

the world through a cosmic acoustemology (acoustic epistemology) that privileges the experience of sound as a special kind of relational knowledge, a "knowing-with and knowing-through the audible."⁷⁷

Here, Hicks is resounding Steven Feld's work in the anthropology of sound. Coining the term in 1992,⁷⁸ Feld formulated *acoustemology* as an approach that "conjoins 'acoustics' and 'epistemology' to theorize *sound as a way of knowing*. In doing so it inquires into what is knowable, and how it becomes known, through sounding and listening." These two latter concepts, sounding and listening, posit a relational kind of knowing – which Feld emphasized as his core inquiry:

I coined the term 'acoustemology' in 1992 to situate the social study of sound within a key question driving contemporary social theory. Namely, is the world constituted by multiple essences, by primal substances with *post facto* categorical names like "human," "animal," "plant," "material," or "technology?" or is it constituted relationally, by the acknowledgment of conjunctions, disjunctions, and entanglements among all copresent and historically accumulated forms? It was the latter answer that compelled a theoretization of sounding and listening aligned with *relational ontology*, the conceptual term for the position that *substantive existence never operates anterior to relationality*. ⁸⁰

Within this relational framework, sounds mediate not between essences, but between a network of relationally-defined entities which themselves are ever-changing in relation to other relationally-defined entities. The downside of this framework is that it sounds as complex as the reality it seeks to describe. However, it is useful in understanding how sound creates, mediates and is produced through ontological relations – and it is this ontological relationality (including Neoplatonic hierarchies, for example) itself that gives sound its epistemological import. In the case of Ikhwān al-Ṣafā' and their *Rasā'il*, we see time and again that the

^{77.} Hicks, *Composing*, 3. The references in the quotation marks are to physicist Brian Greene's words in the "Gravitation Waves Hit the Late Show," 6:48–8:00, http://www.cbs.com/shows/the-late-show-withstephen-colbert/video/F42ED0EC-2452-577E-F107-1614438B56F2/gravitational-waves-hit-the-lateshow/ (accessed March 25, 2016); and the references of the last sentence are to anthropologist Stephen Feld's "Acoustemology," in *Keywords in Sound*, ed. David Novak and Matt Sakakeeny (Durham and London: Duke University Press, 2015), 12.

^{78.} Steven Feld, "Waterfalls of Song: An Acoustemology of Place Resounding in Bosavi, Papua New Guinea," in *Senses of Place*, ed. Steven Feld and Keith Basso, (Santa Fé: SAR Press, 1996): 1-63.

^{79.} Feld, "Acoustemology," 12. Italics mine.

^{80.} Feld, "Acoustemology," 12-3. Italics mine.

ontological relations defined by a Neoplatonizing hierarchy determine the epistemological narratives around sound and hearing. Before coming to the *Rasā'il*, however, this chapter will paint the larger picture and explore how "knowing through sound" features in different dimensions of Islamic thought and history: how Qur'ānic cosmology and its later philosophical elaborations, narratives of revelation and inspiration, the oral/aural traditions of scriptural/prophetic transmission, all can be conceptually converged around the idea of *knowing through sound*.

If we are to say that "knowing" cannot be understood as independent from "being," perhaps it is a good idea to start with the concept of "being through sound" in order to understand how the relationalities of being define those of knowing. Similarly with the other Abrahamic traditions that describe the creation as a speech-act, Qur'ānic cosmology also posits that creation (whether it is understood to be momentary or gradual) is an auditory/verbal event: "He is the Originator (*al-Badī*) of the heavens and the earth. When He decrees a matter, He simply tells it, "be!" (*kun*!) and it is!" (2:117) But how did this command take place – was it actually through sound, or is this speech only metaphorical?

Augustine already pondered this question of God's speech, asking God, "[b]ut how didst Thou speak?" (sed quomodo dixisti?) To him, the burning question related to the perceived incompatibility between the ephemeral and material nature of sound and the timeless and metaphysical nature of God's Word. Muslim authors also pondered the same question, most notably in what we now call kalām literature, and frequently around the debate of the createdness or eternity of the Qur'ān. The debate involved whether speech or logos (kalām) was an attribute (sifa) of God, which would mean that the Qur'ān qua God's speech (kalām allāh) would be uncreated and eternal – this position was embraced by more traditionally-minded

^{81.} Most famously Genesis 1-31, King James Bible.

^{82.} Confessions XI, 6.

scholars such as Aḥmad ibn Ḥanbal and the Ashʿarīs, whereas the rationally-inclined Muʿtazilites notoriously argued against the attributes of God and argued that God's speech can only be conceptualized as mental speech, and the Qur'ān is not an attribute of God but a created entity.⁸³

To sum up some of the positions, al-Māturīdī (d. 944) defended that "God spoke without the letters of the alphabet but Gabriel heard what was said as words and an alphabet so the book on earth [the Qur'ān] is what Gabriel heard. In other words, God gave His commands to Gabriel in *mental speech* and he passed them on to Muḥammad in Arabic," whereas to al-Ash'ārī (d. 925) "the speech of God is eternal consisting of words and pauses so it is not mental speech and *can be heard*." Al-Bāqillānī (d. 1013) was also on the same camp as al-Māturīdī in saying that the speech of God is mental, as well as al-Ghazālī (d. 1111) and al-Rāzī (d. 1210); whereas Ibn Taymiyya (d. 1328) declared that it was heresy to deny that God's speech involved sounds and words⁸⁴.

The theological debates around God's speech were not to be taken lightly. Caliph al-Ma'mūn (d. 833), being a supporter of Mu'tazilism, persecuted those who supported the createdness of the Qur'ān, since this was taken to be a matter of creed (*i'tiqād*). Although this chapter will not go deeper into this debate, what is important to see here is the perceived tension between the passing and corporeal nature of sound (its humanness), and the eternal and transcendent nature of God. Efforts to bridge this dichotomy brought about sophisticated ontological-cosmological theorizations that, at their core, sought to resolve anxieties of compromising God's utter transcendance.⁸⁵

83. A. S. Tritton, "The Speech of God," Studia Islamica, no. 36 (1972): 14-18.

^{84.} Tritton, "The Speech," 14-18.

^{85.} Contemporary anxieties around anthropomorphism are rooted in the same kind of concern. In the tenth century, accusations of anthropomorphism brought serious charge against an individual. There are certain verses in the Qur'ān that, if taken literally, may lead to an anthropomorphic imagination of God; such as "God's hand is over theirs" (yadu llāhu fawqa aydīhim, 48:10), or "God said: 'O Lucifer (Iblīs)! What prevented you from prostrating

An example of such theorization is al-Shahrastānī's (d. 1153) cosmology, at once inspired by Ash'arī and Ismā'īlī theologies. Al-Shahrastānī posits a pre-eternal realm of Command ('ālam al-amr') consisting of phonemes and graphemes, from which the created universe ('ālam al-khalq) comes into being. This realm is pre-eternal, because the God's Command ("be!", kun) takes place outside of time (lā fī zamān). The realm of Command is the first hypostasis (after the utterly transcendent Godhead) in al-Shahrastānī's theorization, and it "spills over to produce" the First Intellect and the rest of the Neoplatonic hypostases. Therefore, his placing of the phonemic-verbal realm of the Command over the First Intellect is an act of prioritizing the aural reality of God's Word upon the eternal hypostases preceding the created universe. 86

Furthermore, his placement of the pre-eternal realm of the Command directly below the godhead is a Plotinion move of reclaiming the utter transcendence of the latter. ⁸⁷ This is in response to the Ash'arī position that places Logos/Speech ($kal\bar{a}m$) – and therefore the engendering Command kun – on the same level with God by defining it as a divine attribute

to what I created with my own hands?" (*qāla yā iblīsu mā mana aka an tasjuda li-mā khalaqtu bi-yadayy*, 38:75) or "Everything is bound to perish except His face" (*kullu shay in hālikun illā wajhahū*, 28:88). To add to this, there is a well-reported Prophetic saying that "God created Adam in His image," (which Christopher Melchert writes about in "God Created Adam in His Image'," *Journal of Qur'anic Studies* 13, no. 1 (2011): 113–24. There were literal and figurative interpretations of these verses: authors with more rationalistic tendencies, such as the Mu'tazilites, favored figurative interpretations while more traditional-minded authors defended that these verses could be taken literally. A third way, a sort of middle, was the *bi-lā kayfa* position "according to which one has to accept the sacred text as it is without trying to interpret its modality (*kayfiyya*)," as Binyamin Abrahamov explains in "The 'Bi-Lā Kayfa' Doctrine and Its Foundations in Islamic Theology," *Arabica* 42, no. 3 (1995): 365–79, quote from page 365.

For a better sense of the interconnectedness of these debates around God's speech, anthropomorphism, and the eternity of the Qur'ān; cf. Livnat Holtzman, *Anthropomorphism in Islam: The Challenge of Traditionalism* (700-1350) (Edinburgh: Edinburgh University Press, 2018); Jon Hoover, "God Spatially Above and Spatially Extended: The Rationality of Ibn Taymiyya's Refutation of Faḥr al-Dīn al-Rāzī's As'ārī Incorporealism," *Arabica* 69 (6): 626-74; Aydogan Kars, *Unsaying God: Negative Theology in Medieval Islam*, (Oxford: Oxford University Press, 2019); Farid Suleiman, *Ibn Taymiyya and the Attributes of God* (Leiden: Brill, 2024); Wesley Williams, "Aspects of the Creed of Imām Aḥmad ibn Ḥanbal: A Study of Anthropomorphism in Early Islamic Discourse," *International Journal of Middle East Studies* 34 (3): 441-63; Umar Muhammad Noor and Usman Abur Hamdi, "Resisting Anthropomorphism: Evaluation of Abū Sulaymān al-Khaṭṭābī's (d. 388/998) Approach to Ṣifāt Traditions," *Journal of Religious & Theological Information* 21 (1-2): 12-33.

^{86.} Toby Mayer, "The Cosmogonic Word in Al-Shahrastānī's Exegesis of Sūrat al-Baqara," *Journal of Qur'anic Studies* 16, no. 2 (2014): 1-41.

^{87.} Mayer, "The Cosmogonic Word," 21. Ian Netton, however, says that "the doctrine of an intermediary between God and Intellect was certainly not of Plotinion or other Neoplatonic origin," and refers to Paul Walker's suggestion that it was possibly adapted from an Hermetic source. See Netton, *Allāh Transcendent*, 212.

(\$ifa) as pointed out above. As Toby Mayer explains, al-Shahrastānī's commitments to an Ismā'īlī "negative theology" did not allow him to compromise the godhead's status as "beyond all human prediction and ideation," however, it still elicited his view of the "Eternal Command (al-amr) or Word (al-kalima)... [as] the urgrund of being, the apex of the hierarchy of existents which it is responsible for bringing about." In other words, although the ontological hierarchy of al-Shahrastānī placed aural realities of the realm of the Command even above the Intellect; it still assigned a demiurgic, mercurian position for the former rather than an identity with transcendent God. In this imagination of existence, aural or phonemic entities mediate between the Transcendent and everything below it.

Al-Shahrastānī's hierarchization was just one of the ways in which Muslim philosophers or theologians attempted to resolve the tension created between notions of divine transcendence and divine speech. As mentioned above, the sounds' mercurian and demiurgic position in such hierarchies as al-Shahrastānī's, attest to their function of mediating through this imagined divide between the transcendent God and His creation. Accordingly, God's speech (whether aural or mental) occurs in the Qur'ān in a *relational* context – between Him and His creation – it serves a mediating and communicative function: to create the thing in the first place (with the command *kun!*), and then to inform (15:49), to implore (7:11), to guide (2:2) and to console (93:3); to warn (66:6) and to promise (6:160). All of these facts are accomplished by the mediation of sound, as the primary medium of Qur'ānic revelation and transmission.

Qur'anic cosmos and sound: sound as transmitter of knowledge

In 2016, Mohammad Ali Tabatabai and Saida Mirsadri published an article that sought to make a literal map of the cosmos described in the Qur'ān, "as its contemporary interlocutor

^{88.} Mayer, "The Cosmogonic Word," 14.

would understand it."⁸⁹ The article both explored the late ancient cosmological ideas present in the Qur'ān, while also differing from some previous authors in emphasizing Qur'ān's originality. Presenting a sort of Ur-cosmography of the Qur'ān, the study depicts the Qur'ānic cosmos as a structure with God on the highest end, and the waters below the Earth at the lowest. Below God's presence are seven layers of heaven (*al-samā*') the lowest of which makes up the Earth's atmosphere; there are invisible pillars that extend from the ground to the sky, and "heavenly ropes" by which some individuals can ascend to the heavens. ⁹⁰

The quite literal imagery notwithstanding, the article is helpful in bringing together most of the studied elements of Qur'ānic cosmology. An especially important concept for us to make sense of the hierarchical structure of the cosmos is the aforementioned "heavenly ropes," which Tabatabai and Mirsadri incorporated after Kevin van Bladel's "Heavenly Cords and Prophetic Authority" (2007) which aimed at a cosmographical analysis of the Qur'ānic concept of *asbāb* (sg. *sabab*). In van Bladel's summary:

The *asbāb* mentioned in five passages of the Qur'ān have been interpreted by medieval Muslims and modern scholars as referring generally to various "ways", "means", and "connections". However, the word meant something more specific as part of a biblical-quranic "cosmology of the domicile". The *asbāb* are *heavenly ropes running along or leading up to the top of the sky-roof.*..According to the Qur'ān, a righteous individual may ascend by means of these cords to heaven, above the dome of the sky, where God resides, only with God's authorization. The heavenly cords are a feature of quranic cosmology... by which true prophets ascend to heaven and return bearing signs. ⁹³

^{89.} Mohammad Ali Tabataba'i, Mehr Dad, and Saida Mirsadri, "The Qur'ānic Cosmology, as an Identity in Itself." *Arabica* 63, no. 3/4 (2016): 201.

^{90.} See Tabatabai et al. "Qur'ānic Cosmology," 217; for a simplified, literally conceived drawing of the "Qur'ānic cosmos."

^{91.} See for example, Damien Janos' study on the genealogy of some elements of Qur'ānic cosmology, "Qur'ānic Cosmography in Its Historical Perspective: Some Notes on the Formation of a Religious Worldview," *Religion* 42.2 (2012): 215–31; and Tommaso Tesei's study on the late antique context of a Qurānic concept of *sarab*, designating a "subterranean passage under the sea," and the Qur'ānic hapax legomenon of the joining place of the two seas (*majma 'al-baḥrayn*, 18:63) in "Some Cosmological Notions from Late Antiquity in Q 18:60–65: The Quran in Light of Its Cultural Context," *Journal of the American Oriental Society* 135, no. 1 (2015): 19–32.

^{92.} Kevin van Bladel, "Heavenly Cords and Prophetic Authority in the Quran and Its Late Antique Context," *Bulletin of the School of Oriental and African Studies, University of London* 70, no. 2 (2007): 223–46. http://www.jstor.org/stable/40379198.

^{93.} Van Bladel, "Heavenly Cords," 223. Italics mine.

The heavenly cords were physical conduits to heaven, and van Bladel even claims, to "God's presence." Access to them was predicated upon God's permission. "O Jinn and Humans, if you can penetrate through the outer regions of the heavens and the earth, then do so! You shall not penetrate [them] without authorization." When the Pharaoh wanted his son Hāmān to build a pyramid for him, he was intending to find a heavenly cord (*sabab*) to reach the heavens and see whether the God of Moses was there. But since the ascent by the heavenly cords cannot occur but by God's permission, "he was blocked from the way" (*wa-ṣudda ʿani l-sabīl*, 40:37). 95

Van Bladel pointed out that access to the $asb\bar{a}b$ was closely related to concepts of prophetic authority. To carry this argument further, I will say that access to the heavenly cords are closely related to *epistemic authority* as well, since the Qur'ān depicts God as the sole source and bestower of knowledge of any kind. ⁹⁶ Ascent narratives of the prophets are not only spiritually but also epistemologically significant. For example, in the well-known case of the Prophet's ascension to the heavens $(mi'r\bar{a}j)$, the Prophet was informed about the religious obligations of Muslims and how the ritual prayers $(sal\bar{a})$ should be performed. ⁹⁷ The motif of the heavenly journey, epitomized by the $mi'r\bar{a}j$, was also used to explain the epistemic authority

_

^{94.} yā ma'shara l-jinni wa-l-insi ini staṭa'tum an tanfudhū min aqṭāri l-samāwāti wa-l-arḍi fa-nfudhū lā tanfudhūna illā bi-sulṭānin, 55:34.

^{95.} Full verses (40:36-7): "Pharaoh said, 'O Haman, build for me a platform that I may reach the asbāb, the asbāb of the heavens so I can rise up to the God of Moses – though I suspect he is a liar! Thus to Pharaoh was commended his evil deed, but he was blocked from the way. Pharaoh's scheme was merely (his own) perdition." (wa-qāla Fir 'awnu yā Hāmanu bni lī ṣarḥan la 'allī ablughu l-asbāba l-samāwāti fa-aṭli 'a ilā ilāhi Mūsā wa-innī la-azunnuhū kādhiban wa-kadhālika zuyyina li-Fir 'awna sū'u 'amalihī wa-ṣudda 'ani l-sabīli wa-mā kaydu Fir 'awna illā fī tabāb). Van Bladel's translation and interpretation, "Heavenly Cords," 228.

^{96.} See 10:20, 11:123 ("To God belongs the knowledge of what is hidden in the heavens and earth," wa-li-llāhi ghaybu l-samāwāti wa-l-arḍ), 12:22 ("We gave [Joseph] wisdom and knowledge," ātaynahu ḥukman wa-'ilman), 12:37, 20:52, 20:98, 2:32 ([The angels said:] "We have no knowledge except what You have given us," lā 'ilma lanā illā mā 'allamtanā), 20:114 ("Say: 'O Lord, increase me in knowledge," wa-qul rabbi zidnī 'ilman), among others.

^{97.} For related literature, see Geo Widengren, *The Ascension of the Apostle and the Heavenly Book*, Uppsala and Wiesbaden, 1950; Widengren, *Muhammad, the Apostle of God, and his Ascension*, (Uppsala and Wiesbaden, 1955); Michael Sells, "Ascension," *Encyclopaedia of the Qur'ān*, I: 176-81; Bertram Schrieke, "Die Himmelsreise Muhammeds," *Der Islam* 6 (1916): 1-30; Mohammad Ali Amir-Moazzi (ed.), *Le voyage initiatique en terre d'Islam: ascensions célestes et itinéraires spirituels*, (Louvain and Paris, 1996).

of *imāms* for Shī'ites: according to whom the *imāms* ascended to the Throne of God (*al-'arsh*) every Friday night to gain new knowledge. 98 In short, in these kinds of narratives the attainment of higher knowledge was paired with an ascension to the higher realms.

We see, therefore, that the *Qur'ān portrays knowledge as trickling down a cosmic/ontic hierarchy*, in which proximity to God (by spiritual purity and divine favor) predicts the exclusivity of the knowledge that can be acquired. Human beings have the most flexible role in this hierarchy, because of their ability to assume a variety of cosmological ranks in accordance with their spiritual status.⁹⁹

^{98 .} Mohammad Ali Amir-Moezzi, "Meʿrāj," *Encyclopædia Iranica*, online edition, 2010, available at http://www.iranicaonline.org/articles/meraj-i (accessed on 30 April 2025).

^{99.} Like the Ikhwān al-Ṣafā' say: "Know, O brother, that your soul is potentially an angel, and can become one in actuality if you follow the path of the prophets and the masters of the divine laws and implement their counsels mentioned in their books and laid down in the usages of their laws. Your soul is also potentially a devil and will one day actually becoma a devil if you follow the path of the wicked and the hypocrites." Rasā'il IV, 122; also see III, 81. Quoted in Netton, Muslim Neoplatonists, 24. According to the Ikhwān there are, in total, fifteen ranks of the human soul (seven below and seven above), the highest of which is the angelic rank (al-martabat al-malakiyya) by the virtue of which humans can ascend to heavens. Netton, Muslim Neoplatonists, 36.

^{100.} I use "epistemic prerogative" and "epistemic advantage" to refer to access to more exclusive knowledge, and/or significantly *earlier* access to knowledge.

^{101.} In the Qur'ānic stories of the prophets, *al-mala*' refers to the elite members of a society – people who hold the largest social and political power after the monarch/king (*al-malik*) or the Pharaoh (*al-fir'awn*). They often appear as the ones opposing the prophetic message: the elites of the ancient tribes of 'Ād and Thamūd both denied to recognize the prophets sent to them (7:67, 76) because they were arrogant (*astakbarū*, 7:76); similar with the chiefs among Noah's tribe (11:28, 23:34), or the council of Pharaoh who planned to kill Moses (28:21). In an analogous fashion, the Qur'ān mentions a sort of "high council" (*al-mala*' *al-a'lā*) consisting of angels of higher rank, who are the first ones to be informed about divine decrees that pertain to the future (*al-ghayb*) by virtue of their proximity to God. In other verses, the angels of the highest ranks are referred to as *muqarrabūn* or the "ones that are brought closer," who are also tasked with the carrying of the Throne(40:7), although the precise relationship between the *muqarrabūn* and *al-mala*' *al-a'lā* is not specified. For further reading, see Khalid Yahya Blankinship, "Court," in *Encyclopaedia of the Qur'ān Online*, (Brill, 2018) doi: https://doi.org/10.1163/1875-3922_q3_EQSIM_00097; and Husain Kassim, "Nothing can be Known or Done without the Involvement of Angels: Angels and Angelology in Islam and Islamic Literature," in *Deuterocanonical and Cognate Literature Yearbook*, ed. Friedrich V. Reiterer, Tobias Nicklas, Karin Schöpflin (Berlin: De Gruyter, 2007): 646-7.

(al-ghayb) and other information amongst themselves, as much as God has permitted them to know.

Violations of this hierarchy of knowledge do take place. What happens when an unwanted being, much lower in rank, is listening to the High Council? The case is not only a hypothesis, but a fact, as the Qur'ān mentions demons *eavesdropping* (*yassamma* 'ūna, 37:8) on the conversations of the High Council to know about the future:

Indeed, We have adorned the lowest heaven with the stars for decoration and [as] protection from every rebellious devil

They cannot eavesdrop on the highest assembly of angels for they are pelted from every side

[fiercely] driven away. And they will suffer an everlasting torment

But whoever manages to snatch a word is 'instantly' pursued by a piercing flare. 102 (37:6-10)

Are demons ever successful in their attempt to snatch away angels' words? Fakhr al-Dīn al-Rāzī (d. 1209) starts to interpret this passage by reiterating the common scholarly opinion that the demons (*al-shayāṭīn*) are not allowed into the heavens, however, they sometimes ascend *close enough* to the lowest heaven as to be able to hear the angels. He inquires whether it is rational behaviour on a demon's part to approach the dwelling-place of angels, knowing all too well that he will be "pelted by shooting stars," and concludes that sometimes the demon gets away with it, although rarely. In a later exegesis, Ibn Kathīr (d. 1373)

^{102.} Shihāb, translated here as "piercing flame," was identified in the exegetical tradition with the "stars" (kawākib): the tendency was to identify them as shooting stars rather than the fixed stars. As Fakhr al-Dīn al-Rāzī points out, if these were the same stars as that with which God adorned the sky, using them for the purpose of repel demons would cause "a great decrease in the number of the stars of the heavens," (nuqsān kathīr min a 'dād al-kawākib al-samā') and decrease the adornment (zīna) of the sky, but the number of stars is constant (inna a 'dād al-kawākib ... bāqiya ... min ghayr taghayyur). Al-Rāzī concludes that these "lamps" (maṣābīḥ,) should be of a different kind than the fixed stars (hādhihī l-shuhub ghayr tilka al-thawābit al-bāqiya), they should rather be of a moving kind, for the specific purpose of repelling demons. Fakhr al-Dīn al-Rāzī, Mafātīḥ al-ghayb, 32 vols in 16, (Beirut: Dār al-Fikr, 1981) 26:120.

^{103.} al-Rāzī, Mafātīḥ, 120. inna maqarra l-malā'ikati huwa l-saṭḥ al-a'lā min al-falak, wa-l-shayāṭīn lā yumkinuhum al-wuṣūl illā ilā l-aqrab min al-saṭḥ al-asfal min al-falak, fa-yabqā jirm al-falak māni'an min wuṣūl al-shayāṭīn ilā l-qurb min al-malā'ika.

gives a more detailed account of how demons are sometimes able to snatch away words from angels:

And whoever from the demons snatches something, and that is the word that they hear from the heavens (wa-hiya l-kalimatu yasma $uh\bar{a}$ min al- $sam\bar{a}$), he promptly throws it down (fa- $yulq\bar{\imath}h\bar{a}$) unto the demon beneath him, and this other demon also throws it down to the one underneath. If, by the will of God, they manage to throw the word down before the shooting star (al- $shih\bar{a}b$) reaches them, the last demon seizes [the word] and takes it to the soothsayer (al- $k\bar{a}hin$). 104

This explained how the soothsayers acquired their knowledge of the future. ¹⁰⁵ Two principles stand out in this narrative: firstly, the Qur'ān (and subsequent exegeses) represents knowledge as trickling down a cosmic hierarchy starting from God and ending in the lowest levels of being – and this hierarchy is represented spatially, placing God's presence¹⁰⁶ at the top followed by the seven heavens, continuing with the Earth and lower spaces. ¹⁰⁷ Heavens are exclusive to beings that are higher in the hierarchy, such as the angels, and when allowed, prophets and other righteous individuals via ascension. Heavens are also the spaces endowed with an epistemic advantage, ascending to them one can "hear" the speech of angels, possibly bearing information on the things unknown to Earth-dwellers. ¹⁰⁸

^{104.} Ibn Kathīr, Ayy illā man ikhtaṭafa min al-shayāṭīn al-khutfati wa-hiya l-kalimatu yasma ʿuhā min al-samā ʾi fa-yulqīhā ilā lladhī taḥṭahū wa-yulqīhā l-ākhar ilā lladhī taḥṭahū fa rubbamā adrakahu l-shihābu qabla an yulqīhā wa-rubbamā alqāhā bi-qadari llāhi ta ʿālā qabla an ya ʾtīhi l-shihābu fa-yuḥriquhu fa yadhhabu bihā l-ākhar ilā l-kāhin.

^{105.} According to a hadīth report with consensual status (muttafaqun 'alayh), the Prophet was asked about soothsayers. He said: "They are unto nothing." Then they replied: "O Messenger of God! But sometimes what they say comes true." The Prophet said: "Those are the words snatched by the demons, and they whisper it into their friend's ear, and [in the end] the news is mixed with a hundred lies." (su'ila rasūlu llāhi ṣallā llāhu 'alayhi wa-sallam 'an al-kuhhāni fa-qāla rasūlu llāhi ... laysū bi-shay in qālū yā rasūlu llāhi fa-innahum yuḥaddithūna aḥyānan al-shay a yakūnu ḥaqqan qāla rasūlu llāh ... tilka l-kalimatu min al-jinni yakhṭafuhā l-jinnī fa-yaqurruhā fī udhuni waliyyihī qarra l-dajjājati fa-yakhliṭūna fīhā akthara min mī a kadhba, Ṣahīḥ al-Bukhārī 6213, Ṣaḥīḥ Muslim 2228)

^{106.} If we are to interpret the Qur'ān literally, like Tabatabai et al., God's presence is in the sky (*al-samā'*), and He has the Throne (*al-'arsh*) (7:54, 10:3, 13:2, 20:5, 25:59, 32:4, 57:4) and the Footstool (*al-kursī*) which "encompasses the skies and the earth" (2:255). Some angels, described as the *muqarrabūn*, carry the Throne (39:75, 40:7). See Tabatabai et al., "Qur'ānic Cosmology," 208.

^{107.} There is not a concept of Underworld in the Qur'ān, except for a brief reference to "what is beneath the Earth," (*mā taḥta l-tharā*, 20:6), so Tabatabai et al. posit that the lowest space in the hierarchy is the waters beneath the Earth. Tabatabai et al., "Quranic Cosmology," 212.

^{108.} As we shall see in the *Rasā'il Ikhwān al-Ṣafā'*, Pythagoras ascended to the heavens to hear the music of the spheres, and emulated it with his music theory on this earth.

Secondly, the Qur'ān describes knowledge as trickling down *through the medium of sound*: the angels *speak*, the demons *hear*, and they carry the *word* to the sooth-*sayer*. What is described here is a sort of cosmic word-of-mouth: through God's permission, sometimes exclusive knowledge is made more available, through an aural transfer that takes place within a defined hierarchy (remember here, relational ontology). The same verb used to refer to the devils' inspiration of their human associates ($y\bar{u}h\bar{u}na$ from wahy, 6:121) is also used for God's inspiration of His creation, implying a similarity between both kinds of knowledge transfer.

Revelation as sound

What about the cases where a human being, higher in spiritual rank than a demonsummoning soothsayer, is given knowledge by God? Specifically in the case of prophets and other righteous individuals, this process is called revelation (wahy) and inspiration ($ilh\bar{a}m$), and in cases where God gives His servant a book, the process is designated as a "descending" ($tanz\bar{\imath}l$). Revelation is the highest form of knowledge by its being the God's speech to humans, ¹¹⁰ and it is received aurally.

There was not only one way to receive the revelation (waḥy) for the Prophet – it could arrive in the form of speech or other sound phenomena, and it almost always included an aural component. Traditional sources (ḥadīth and sīra literature) agree that the first instance of the Qur'ānic revelation took place in the Cave of Hira, where the Prophet went into seclusion. The first verse to be revealed was the imperative iqra'! translated either as "read!" or "recite!" It is related that archangel Gabriel appeared to the Prophet and commanded him to "read!" (iqra')

^{109.} The soothsayer (*kāhin*) also delivered their oracle in the specific format of *saj* "short rhymed phrases with rhythmic cadences and with a vocabulary that is specific, archaizing, bizarre and cabbalistic." My translation from French, from Toufic Fahd, *La Divination Arabe: études réligieuses, sociologiques et folkloriques sur le milieu natif de l'Islam*, (Brill, 1966), 152.

^{110.} For various definitions see Arent Jan Wensinck and Andrew Rippin, "Waḥy," E.I.2, perhaps the most relevant is "the primary modality of God's speaking to His creatures." Vol. 11, 53.

while the Prophet repeatedly replied: "I cannot read." (*lastu bi-qāri 'in*)¹¹¹ Upon which, Gabriel revealed the first verses of the Qur'ān.

This first revelation, then, came in the form of Gabriel's speaking the verses to the Prophet. At other times, it came in the form of distinct, non-verbal sound phenomena. According to a tradition reported in *Sunan al-Nasā'ī* 934 on the authority of Muḥammad ibn Salama (d. 783), when the companion al-Ḥārith ibn Hishām (d. 634?) asked the Prophet how the revelation came to him, the Prophet replied: "Like the ringing of a bell (*mithl ṣalṣalati l-jaras*), and this is the hardest on me. When it departs I remember what he said. And sometimes the Angel appears to me in the form of a man and speaks to me (*yukallimunī*), and I remember what he said."

The second way the Prophet describes in this *ḥadīth* resembles the arrival of the first revelation (*iqra'*!). The other way in which the revelation arrived is not that straightforward: if the Qur'ānic message, which is essentially verbal, sometimes arrived in the form of non-verbal sounds, what should this say to us about the nature of sound and meaning in the revelation of God's word?

Not only the Prophet himself, but also those around him, experienced the auditory component of revelation. For example, according to a tradition reported on the authority of 'Abd al-Raḥmān ibn 'Abd al-Qāri' (d. 690); 'Umar ibn al-Khaṭṭāb (d. 644) and others around the Prophet also heard a prolonged sound while the Prophet received the revelation. "When the Revelation came down to the Messenger of God ($rasūl\ Allāh$), a humming sound ($daw\bar{\imath}$) could be heard near his face ('inda wajhihī) like the buzzing of bees (ka-dawī al-naḥl), and we waited

-

^{111.} The full account, as the Prophet related it, was reported by 'Ā'isha (Ṣahīḥ al-Bukhārī 3).

^{112.} Al-Ḥārith bin Hishām sa ala Rasūla llāhi şallā llāhu alayhi wa-sallam kayfa ya tīka l-waḥy fa qāla rasūlu llāhi şallā llāhu alayhi wa-sallam alayhi wa-sallam tahyānan ya tīnī fī mithli şalşalati l-jarasi wa-huwa ashadduhū alayya fa-yafṣimu annī wa-qad wa aytu mā qāla wa aḥyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa a tahyānan yatamaththalu liya l-malaku rajulan fa yukallimunī fa yuk

a while."¹¹³ This contemporary account suggests that the sound of the revelation went *beyond* the subjective experience of the Prophet; however, the meaning enclosed in it (expressible in the Arabic language) was only disclosed to him.

So, it seems that the Qur'ānic revelation almost always used sound as its medium, but the aurality of the revelation went beyond its verbality. The sound, whatever form it took, conveyed a meaning that was to be expressed in words, yet only to be understood by its direct recipient, the Prophet. A useful concept to understand this is to think of Augustine's formulation of external and internal hearing, in his discussion of the speech of God: "And these words of thine thus made to serve for the time, did the outward ear (*auris exterior*) give notice of unto the intelligent soul (*menti prudenti*), whose inward ear (*auris interior*) lay listening to thy eternal Word." Here is suggested that hearing has at once external and internal dimensions: when one hears a word, the ears hear the sound form in its physical aspects (its pitch, timbre, length, volume, etc.) and the soul hears the meaning or the eternal essence. 115 Al-Hujwīrī (d.

1

^{113.} Musnad Aḥmad 223, this was when the first ten verses of the sūra titled "The Believers" (al-Mu minūn) were revealed. For the English translation, I used Ḥāfiẓ Abū Ṭāhir al-Zubair 'Alī Zā'ir (ed.), English Translation of Sunan al-Nasā'ī, 6 vols, trans. Naṣīruddīn al-Khaṭṭāb (Darussalam, 2007): vol. 2, 53.

^{114.} St. Augustine's Confessions, in 2 vols, with an English translation by William Watts, (The Loeb Classical Library, London: William Heinemann, 1912): II, 222. et haec ad tempus facta verba tua nuntiavit auris exterior menti prudenti, cuius auris interior posita est ad aeternum verbum tuum). Not only did Augustine differentiate between internal and external hearing, but he also differentiated between an internal and an external voice. A question was, for example, how God "heard." Did He hear sounds in the same way as humans did? In interpreting the Psalm 76.2: "I cried to the Lord with my voice," Augustine opined that the voice that God heard was the voice of the heart: "That is, not with the bodily voice, which is produced with the sound of air that has been struck, but with the voice of the heart, which to men is silent, but to God sounds like a cry." See Elizabeth Sears, "The Iconography of Auditory Perception in the Early Middle Ages: On Psalm Illustration and Psalm Exegesis," in The Second Sense: Studies in Hearing and Musical Judgement from Antiquity to the Seventeenth Century, ed. Charles Burnett, Michael Fend, and Penelope Gouk, (Warburg Institute, 1991): 36.

^{115.} The Neoplatonic overtones of the internal-external hearing will be touched upon in the coming chapter on the Ikhwān al-Ṣafā''s theoretization. It is useful to add that references to an "internal ear" in medieval literature do not always denote a spiritual sort of hearing. Ambrose's *Hexaemeron*, for example, used "inner ear" in a non-metaphorical sense, to actually refer to the internal anatomical structures of the ear that provided space for the received sounds to be echoed and retained for longer. However, his explorations on hearing were not devoid of spiritual implications: he still associated the sense of hearing with the acquisition of divine wisdom, by citing Psalm 84.9: "I will hear what the Lord God will speak in me," (*Audiam quid loquetur in me Dominus Deus*). See Sears, "Iconography," 25.

1077) also testified to this distinction in a satisficant context: "Indeed, there are two kinds of listeners: some hear the spiritual meaning, and some only hear the sound." 116

The former kind of listening can be termed as *internal hearing*, as fitting with Augustine's *auris interior*. As we shall also see in the Ikhwān al-Ṣafā''s treatment, internal hearing concerns the perception of the meaning $(ma'n\bar{a})$ enclosed in the sound. It also refers to the kind of hearing that is independent of any bodily faculties – it is the very ability of souls to hear on their own, such as they supposedly did when God spoke to them in the $q\bar{a}l\bar{u}$ bal \bar{a} (as we will soon see). The Fāṭimid scholar Qāḍī al-Nu'mān (d. c. 974), in his interpretation $(ta'w\bar{\imath}l)$ of God's speech to angels (38:71-72) compares *internal hearing* to the hearing we experience in dreams:

The speech attributed to God here means that which occurs in the understanding (*afhām*) of the listeners. It is not like human speech such as that you are familiar with. [It does not] occur within physical bodies and exit through the mouth, [it is not] shaped by the tongue, palate, and lips... for instance, a person may see things in their dream that they never have seen with their own eyes, or hear words without anyone speaking, or hear sounds without there being anything that produces sounds. Indeed, God has the power to reach his servants in whatever way He desires. 117

Internal hearing, then, does not require the presence of any bodily faculties and is therefore a function of the soul, rather than the body. But if we are to go beyond this claim, there is a sort of "archetypal hearing" that is performed by all things, eternally – even before they come into existence. And this takes us to an *Ur-definition* of hearing in larger Islamicate

^{116.} Wa-jumlat al-mustami 'īna farīqayn: aḥaduhumā yasma 'u l-ma 'nā, wa-l-ākharu yasma 'u l-ṣawt. Abū al-Ḥasan 'Alī ibn 'Uthmān al-Jullābī al-Ḥujwīrī, Kashf al-Maḥjūb, ed. and trans. into Arabic by Is ʿād 'Abd al-Ḥādī Qindīl, (Beirut: Dār al-Naḥḍa al-ʿArabiyya, 1980) 650.

^{117. &}quot;anna l-qawla wa-l-kalāma al-muḍāf ilā llāh, anna mā quṣida bihī mā yaqa a bi afhāmi l-sāmi īn wa-laysa dhālika ka-mā tashāhadūna wa tasma ūna min qawli l-qā ʾilīna wa kalām al-mutakallimīna min al-aṣwāti allatī takūnu 'an al-ajrāmi wa-l-ajrāfì wa-takhruju min makhārijihā, wa-taqṭa uhā al-lahawātu wa-l-alsinu wa-l-shifāhu ... wa-qad yarā al-insānu fī manāmihī mā lam yarahū fī nazarihī wa-yasma u al-kalāma min ghayri mutakallim, wa-l-ṣawta min ghayri muṣawwit, wa fī qudrati llāhi ta ʿālā mā ya ʾtadī ʿanhā amruhū ilā l-ma ʾmūri bihī kamā yashā ʾ." Abū Ḥanīfa al-Nu mān ibn Ḥayyūn al-Tamīmī, Asās al-ta ʾwīl, ed. ʿĀrif Tāmir (Beirut: Dār al-thaqafa, 1996) 53.

and Arabic literature – what does it exactly mean to "hear," if it is not that much about vibrations of air reaching our ears?

All things "hear" before they exist?

Another instance that involves this type of hearing is the Qur'ānic eternal covenant that was made between God and human souls, before the latter's sending unto the world. The Qur'ān recounts that when all human souls were in their pre-existent state, God called to them collectively: "Am I not your Lord?" (alastu bi-rabbikum) to which all of them replied "Yes!" (balā) and thus testified the Creator as their Lord. This interaction again involved a sort of verbal/aural communication which presupposes the humans' ability to hear and speak in their pre-existent state. The specific significance of this instance, named either as $q\bar{a}l\bar{u}$ balā or bazme alast, is that firstly it implies that humans come to earth with an innate knowledge of God as their Lord, 119 and secondly, it points to the humans' pre-conscious acceptance of the responsibility conferred upon them. 120

^{118. &}quot;And when your Lord brought forth from the loins of the children of Adam their descendants and had them testify regarding themselves, [He asked] "Am I not your Lord?" They replied, "Yes, You are! We testify." [He cautioned,] "Now you have no right to say on Judgment Day, 'We were not aware of this." (Wa-idh akhadha rabbuka min banī ādama min zuhūrihim dhurriyyatahum wa-adhhadahum 'alā anfusihim a-lastu bi-rabbikum aālū balā shahidnā an taqūlū vawm al-qivāmati immā kunnā 'an hādhā ghāfilīn, 7:172)

^{119.} In combination with some *hadīth* and other verses, it is a strong position in the Islamic literature that humans are born with the innate knowledge of God and of right and wrong. The original state of humans when they are first born is called *fitra*, which I would be inclined to translate as "unadultered human nature," but other translations include "primordial nature" (Oliver Leaman), "natural disposition" (Camilla Adang), or "original normative disposition" (Carl El-Tobgui), or "innate inclination" (Andrew March). A saying of the Prophet recorded in Ṣaḥīḥ al-Bukhārī (2659a) goes: "Every human is born from their mother according to their true nature (fitra). Then their parents convert them into Judaism, Christianity or Zoroastrianism [or other religions]. If their parents are Muslims, then they remain as Muslims [literally: then he is a Muslim]." (kullu insānin tuliduhu ummuhu 'alā l-fiṭrati waabawāhu ba'du yuhawwidānihī wa-yunassirānihī wa-yumajjisānihī fa in kāna muslimīna fa muslimun) My initial translation as "they remain as Muslims" is quite debatable, as I have indicated the literal translation. Is fitra different from Muslim faith or are the two imagined as conjunct concepts? Although this hadīth certainly represents the religions except Islam as deviations from the fitra, the case of whether Islamic doctrinization constitutes a direct continuity with fitra or perhaps an elaboration or even an alteration thereof is not that clear. Overall, the concept of fitra is very much debated in medieval Islamic thought, especially by the rivalling theological schools of Mu'tazilism and Ash'arism; as well as by conservative scholars such as Ibn Taymiyya. See Syamsaddin Arif, "Rethinking the Concept of Fitra: Natural Disposition, Reason and Conscience," American Journal of Islam and Society 40 3-4 (2023): 77-103.

^{120.} An interesting question might be whether this "pre-conscious acceptance" involved any will on the humans' part – or is the $q\bar{a}l\bar{u}$ bal \bar{a} only a rhetorical enactment of the humans' inevitable destiny? We might gather some

How can things "hear" before they exist? The celebrated mystic and philosopher Ibn 'Arabī (d. 1244) posited that hearing (sam') was the first divine attribute given to all entities, even before they came into existence. Hearing was necessary for them to perceive the Command kun! which would then bring them into existence. It is true that saying "all things heard before they existed" sounds like a logical fallacy, but in the context of Ibn 'Arabī's cosmology it is possible. Since in his view, all entities in the universe had pre-existent status in the foreknowledge of God, which means that all entities are, by virtue of His foreknowledge, eternal. The attribute of Hearing given to pre-existent things, however, should not be understood as sensory perception, but rather a more abstract receptivity to God's Word (qawl), which might be called "archetypal hearing" (al-sam 'al-thubūtī). Actual hearing (al-sam 'al-wujūdī), on the other hand, is only possible for existent things. 121

_

clues from the Qur'ān's statement that religious responsibility was offered to other beings than humans as well, but humans were the only ones to undertake it (33:72): "We offered the Responsibility [al-amāna] to the heavens and the earth and the mountains, but they all declined to bear it, being fearful of it. But man undertook to bear it. For man is unfair [to himself] and he knows but little." (innā 'araḍnā l-amānata 'alā l-samāwāti wa-l-arḍi wa-l-jibāli fa-abayna an yaḥmilnahā wa-ashfaqna minhā wa-ḥamalahā l-insān innahū kāna zalūman jahūlan) Therefore, the Qur'ān presents the human ordeal as a chosen condition. At the same time, this choice of humans is attributed to their natural tendency to underestimate the gravity of the offered Responsibility (al-amāna) due to their unfair (zalūm) and ignorant (jahūl) disposition. The apparent choice, therefore, is rooted in a supposed human nature, which is God's creation. A possible implication of this is that a human free will that is outside of and independent from God's will is not possible, since all decisions spring from the pre-destined tendencies of the human mind. For a thorough discussion of this question, see the very recent volume Nasrin Bani Assadi (ed.), Freedom Revisited: A Comparative Theological Approach to the Question of Free Will in Islam, (Leiden: Brill, 2024); as well as Catarino Belo, Chance and Determinism in Avicenna and Averroes (Leiden: Brill, 2007); and Maria de Cillis, Free Will and Predestination in Islamic Thought: Theoretical Compromises in the Works of Avicenna, al-Ghazālī, and Ibn 'Arabī (Routledge, 2013), among others.

^{121.} Mohamad Haj Yousef, *Ibn 'Arabī – Time and Cosmology*, (Routledge, 2011), 143. In Ibn 'Arabī's cosmology, there are seven stages of creation, which are formulated as seven days starting from Sunday (al-aḥad). Each "day" comes with a specific attribute or "motion,": "(the motion of) the Day of Sunday was from the (divine) Attribute of Hearing,

^{...} and the motion of the Day of Monday was from the Attribute of Living,

^{...} and the motion of the Day of Tuesday was from the Attribute of Seeing,

^{...} and the motion of the Day of Wednesday was from the Attribute of Willing,

^{. . .} and the motion of the Day of Thursday was from the Attribute of Ability,

^{...} and the motion of the Day of Friday was from the Attribute of Knowledge,

^{...} and the motion of the Day of Saturday was from the Attribute of Speaking." [II.438.7] Yousef's translation.

When pre-existent things receive the Word through "hearing," they come to exist (as seen in 2:117), in other words, all things "hear" in order to exist. The specific sense of the word is important here, since the attribute of hearing (sam') also refers to a state of obedience and subservience. As the sūfī theoretician al-Hujwīrī (d. 1077) remarked, "speech (kalām) is a sort of pride and hearing (samā') is a sort of humility." A few times, the Qur'ān mentions the believers (al-mu'minūn) as pronouncing the words "we heard and we obey!" (sami'nā wa-aṭa'nā, 24:51, 2:285) in stark contrast to the Moses' nation that proclaimed in a twist of words, "we heard and we disobey!" (sami'nā wa-'aṣaynā, 2:93); and in most Sunni jurisprudence, hearing about a religious commandment necessitates the compliance (taklīf) of the hearer. 123

Eleventh-century linguist al-Rāghib al-Isfaḥānī (d. c. 1109) lists the metaphorical meanings of hearing (sam') as "understanding" (fahm) and "obedience" (tā 'a). 124 To illustrate these uses of the word "hearing," al-Isfaḥānī cites the verse "And His saying: Do not be like those who say 'we have heard!' while they do not hear." 125 In al-Isfaḥānī's interpretation, this either means that these people, while claiming to have heard God's message, did not understand it (lā yafhamūn), or that they did not act upon what was said (lā yaf 'alūna bi-mūjibihī). In other words, the "hearing" here does not refer to sense perception, but to a broader sense of receptiveness including genuine understanding and practical compliance.

Likewise, some other verses portray hearing almost synonymously with understanding: "You cannot make the dead hear" (*innaka lā tusmi u l-mawtā*, 27:80) sets up an analogy between the perceived obstinacy of the unbelievers and the incapacity of the dead to sense or respond, thereby suggesting a metaphor for *un-receptiveness* rather than literal deafness. This

^{122.} Al-Hujwīrī, *The Kashf al-Mahjub: The 'Revelation of the Veiled' of Ali b. 'Uthman al-Jullābi Hujwiri. An early Persian Treatise on Sufism*, trans. Reynold Nicholson, (Edinburgh University Press, 2014), 459.

^{123.} Al-Hujwīrī, The Kashf, 393.

^{124.} Al-Rāghib al-Isfaḥānī, al-Mufradāt fī gharīb al-Qur'ān.

^{125.} Wa-qawluhū: wa-lā takūnu ka-lladhīna taqūlu sami nā wa-hum lā yasma ūn, 8:21.

is also repeated in verses designating the unbelievers as "deaf, mute, and blind," (*ṣummun bukmun 'umyun*, 2:18) because "God has sealed their hearts and their hearing, and their vision is veiled." Conceived in this sense, hearing is represented as understanding: "He is the One who has made the night for you to rest in and the day bright. *Surely in this are signs for those who hear*." 127

In his twenty-volume Arabic dictionary *Lisān al-ʿarab*, Ibn al-Manẓūr (d. c. 1312) also points out that "to hear" (*sami ʿa*) can be synonymous with "to respond" (*ajāba*) and "to accept" (*taqābala*). This is why, he writes, Arabic-speaking people say "hear my supplication!" (*isma ʿdu ʿā ʾī*) to request God to respond to or accept their prayers. This is also why the Prophet was reported to say: "O God, I seek refuge in Thee from a supplication that is not heard," meaning that a supplication that is not *responded to* (*ayy lā yustajāb*). We see in these two dictionary entries from Rāghib al-Isfaḥānī and Ibn al-Manẓūr, therefore, the word hearing (*sam ʿ*) encompasses a variety of meanings ranging from response and acceptance to understanding and obedience. What connects them all, we could say, is that they refer to a state of *receptiveness* to define the relationship of the Created with respect to the Creator.

This way, the chapter has come full-circle to one of its first points that concepts of hearing and sound best come to light when examined in the context of the relational ontologies in which they are placed. The verb hearing described a specific modality of obedience and receptiveness in how the creation related to its Creator; God's speech was His modality of relating to the created universe. The universe came to be through hearing, and God created by

^{126.} khatama llāhu 'alā gulūbihim wa- 'alā sam 'ihim wa- 'alā absārihim ghishāwa, 2:7.

^{127.} huwa lladhī jaʻala lakum al-layl li-taskunū fīhi wa-l-nahāra mubṣiran inna fī dhālika la-āyātin li-qawmin yasmaʻūn, 10:67.

^{128.} *Allāhumma innī a ʿūdhu bika min du ʿā ʾi lā yusma* ʻ, quoted in Muḥammad ibn Mukarram ibn al-Manẓūr, *Lisān al-ʿarab* (Bulaq, Cairo: al-Maṭbaʿat al-kubrā al-mīriyya, 1883-90), v. 9-10: 28 in *ḥarf al-ʿayn*. The full report of the Prophetic saying can be found in *Sunan al-Nasā ʾī* 5470.

^{129.} wa-minhu al-ḥadīth Allāhumma innī a ʿūdhu bika min du ʿā ʾi lā yusma ʿ ayy lā yustajāb wa-lā yu ʿtaddu bihī ka annahū ghayru masmū ʿ. Ibn al-Manzūr, Lisān, same page as above.

speaking with His Command. This relational modalities of Being also defined those of Knowing; in which knowledge was conveyed *down* a cosmological hierarchy through the medium of sound. Revelation, heard and understood, came to be the basis of religious knowledge. The epistemological import of hearing in Islamicate literature, it is hoped, should by now be more clear for the reader.

The bigger picture: How is it useful for us to understand the Ikhwān al-Ṣafā'?

This chapter, as I stated in the beginning, was the larger picture of how sounds and knowledge related to each other in the context of the fundamental texts of Islam (the Qur'ān and sunna) and some later texts of Islamicate literature (broadly conceived, including philosophy, *kalām*, lexicography, etc.). I attempted to show in broad strokes how the Qur'ānic ontological hierarchies also define knowledge relationships, and how sound has the mercurian function of mediating knowledge within this hierarchy. I also aimed to show how some of the philosophical expositions of sound and hearing in Islamicate literature used a Neoplatonizing hierarchy to resolve the tension between a normative stance of God's utter transcendance (*tanzīh*) and the anthropomorphic suggestions of God's speech in the Qur'ān. ¹³⁰ It is useful to take these few observations with us on the next chapter, as we set off with the discussion of how Ikhwān al-Ṣafā''s formulation of sounds, music and knowledge developed from this broader *Begriffswelt*.

_

^{130.} Some philosophical works cited here belong to a later period than that in which the Ikhwān al-Ṣafā' were active. However, I argue that it might be useful to see the later elaborations of the Neoplatonic emanationist hierarchies, say by Ibn 'Arabī and Al-Shahrastānī, to better understand the *earlier* (ninth- and tenth-century) elaborations on this scheme. Sometimes diachronic studies can go in a reverse direction, and this kind of "hindsight" should not necessarily denote a teleological stance. In the later centuries, these "borrowings" from late antique pagan philosophy were more tactfully integrated, with less inconsistencies as we see in the Ikhwān al-Safā'.

Chapter 2

From the Sensible to the Intelligible: Musical perception and concept-formation in the *Rasā'il*

This chapter uses Feld's acoustemology and argues that, similar to the larger Islamicate literature, in the *Rasā'il*, sound features as a transmitter of knowledge within a highly hierarchical, relational ontology inspired by Neoplatonism. The Ikhwān combine an Aristotelian discussion of sense perception with a (Neo)Platonic narrative of the soul's ascension through knowledge; and music as "well-composed sound" (*alḥān mu'talifa*)¹³¹ is represented to have en epistemic import springing from its heavenly (cosmo-ontologically superior) origins. This reading of the Ikhwan's music philosophy takes into account the larger theoretical and philosophical frameworks that they used, in contrast to most of the previous studies that solely focused on the Epistle 5 to understand their music philosophy. The nature of the questions I pose to the text requires going beyond mere description of what the Ikhwan wrote on music, but it requires a reconstruction of the Ikhwan's larger *Weltanschauung* and the surprisingly integral place music and sound have in it. I had to synthesize and connect the narratives found in different epistles to get a picture of how knowing-through-sound features in the Ikhwānian amalgam of philosophical and esoteric ideas.

The historiography of music and sound is fortunately moving into a direction where texts on music are not anymore examined in isolation, or solely in comparison to other texts on music. ¹³³ This latter approach has characterized the scholarly writings on "music and Islam," whereby most of the literature has focused on a comparative examination of the eminent music

^{131.} My translation from "inna l-mūsīqī huwa al-ghinā'... wa l-ghinā' huwa alḥān mu'talifa." See Wright's critical edition, On Music, '' [page 21 on the Arabic text].

^{132.} See the framework chapter.

^{133.} Fadlou Shehadi's Music Philosophies in Medieval Islam is an example of this new tendency in the scholarship.

treatises of al-Fārābī, al-Kindī, Avicenna, Ikhwān al-Ṣafāʾ, and others. While these comparisons were helpful in distinguishing different trends within medieval Islamicate writings on music, they were generally restricted within the disciplinary boundaries of historical musicology, given the scholarly specializations of Shiloah, Farmer, Perkuhn, Wright, Neubauer; to name a few. 134

My argument starts from the simple realization that ancient and medieval philosophy saw in music something greater than a mere cultural form. Greek authors in antiquity posited "a cosmos regulated by sound," furthermore, "by sound in its most internally coherent form – music." In a musical universe, sounds were omnipresent, and epistemologically significant. Writing on the Neoplatonic concept formation, Christoph Helmig notes that "from a (Neo)Platonic viewpoint the four main sciences of geometry, arithmetic, music and astronomy (the so-called *quadrivium*) are not considered ends in themselves. They are rather means to lead the soul upwards to a knowledge both of the *logoi* and of its true self." My question in this chapter is *how* music leads to such knowledge in the Neoplatonizing work of Ikhwān al-Ṣafā'. I will explore this question in light of their broader theoretization of the soul – with its sensory, intellective, and assimilative capacities. In connection with the previous chapter's broad

^{134.} All of these authors share a background in historical musicology, and their studies accordingly tend to concentrate on musical sources - treatises on music theory, descriptions of musical instruments, musicians' biographies, polemics on music, etc. Although this resulted in a neglect of how sound and music feature in the intellectual history of the Islamicate world, these authors have nevertheless contributed an impressive and highly valuable body of literature to the scholarship on music in medieval Islam. Amnon Shiloah (1928-2014) worked extensively on the music history of medieval Islamic and Jewish communities. Some of his most cherished contributions includes the bibliography The Theory of Music in Arabic Writings (c. 900-1900): descriptive catalogue of manuscripts in libraries of Europe and the U.S.A, (G. Henle Verlag, 1979); and his articles such as "The Arabic Concept of Mode." Journal of the American Musicological Society 34, no. 1 (1981): 19-42; "Music and Religion in Islam," Acta Musicologica 69, no. 2 (1997): 143-55; as well as his 1964 annotated translation of the Epistle on Music in L'Epitre sur la musique des Ikhwān al-Ṣafā': traduction annotée, (P. Geuther, 1964). One of the pioneers of the field, Henry George Farmer (1882-1965), was a British musicologist with a special interest in medieval Arabic music and how it influenced Renaissance Europe. His well-known works include The Arabic Musical Manuscripts in the Bodleian Library: A Descriptive Catalogue With Illustrations of Musical Instruments (Reeves, 1925); The Arabian Influence on Musical Theory, (Reeves, 1925); A History of Arabian Music to the XIIIth Century, (Luzac and Co., 1929); for others see Eckhard Neubauer and Henry Farmer, Studies in Oriental Music, in 2 vol., (Institute for the History of Arabic-Islamic Science at the Johann Wolfgang Goethe University, 1977); Eva Ruth Perkuhn, Die Theorien zum arabischen Einfluss auf die europäische Musik des Mittelalters, (Waldorf-Hessen, 1976); among others.

^{135.} Shane Butler and Sarah Nooter, "Introduction," in Sound and the Ancient Senses, 4.

^{136.} Helmig, Forms, 298.

argument, the sounds feature in the *Rasā'il* as a mediative agency conveying knowledge in a Neoplatonizing relational ontology—they feature as carriers of meaning which lead to the knowledge of intelligible realities.

Ikhwān's main influences in Graeco-Arabic transmissions

The transmission of Neoplatonist texts into Arabic literature largely took place in the ninth century. ¹³⁷ Ian Netton mentions three main centres of Greek learning in late ancient Near East: Alexandria in Egypt, Ḥarrān in Southeastern Asia Minor and Jundashapur near Baghdād. These three, he says, constituted a triangle around the nascent major learning center, Baghdād, which eventually converged all of their sciences in 830 CE. ¹³⁸ The former three already had "university-like" institutions of learning, which were followed then by the House of Wisdom (*Bayt al-Ḥikma*) in Baghdād, established by Caliph al-Ma'mūn (r. 813-33). ¹³⁹ Importantly, the city of Alexandria, where myriad late ancient philosophical and religious doctrines mingled to create what Evelyn Waugh called an "ancient asparagus bed of theological absurdity," ¹⁴⁰ was taken over by the Arabs in the year 642 CE, with all its historical implications for intellectual production in Arabic.

^{137.} On the "translation movement," see Dimitri Gutas, *Greek Thought, Arabic Culture: the Graeco-Arabic Translation Movement in Baghdad and Early Abbasid Society*, (Routledge, 1998).

^{138.} Netton, Allāh Transcendent, 97-8.

^{139.} There are various speculations about why and how such an institution was established. For a summary of the history of *Bayt al-Ḥikma* and the related people, see Marie-Genevieve Balty-Guesdon, "Le *Bayt Al-Ḥikma* de Baghdad," *Arabica* 39, no. 2 (1992): 131–50, More recent scholarship for reference includes Kevin van Bladel and Dimitri Gutas, "Bayt al-Ḥikma," *Encyclopedai of Islam Three* (Brill, 2009) and Dominique Sourdel, "Bayt al-Ḥikma," in *Encyclopaedia of Islam New Edition Online (EI-2 English)*, ed. Peri Bearman (Brill, 2012). Medieval historiographies of the institution include Ibn Abī Uṣaybi 'a's '*Uyūn al-anbā* 'fī ṭabaqāt al-aṭibbā', Ibn al-Nadīm's *Kitāb al-Fihrist*, 2 vols., ed. Gustav Flügel, (F. C. W. Vogel, 1872); Ibn Juljul's *Ṭabaqāt al-aṭibbā* 'wa-l-ḥukamā' ed. Sayyid, (Cairo: 1955), 65; Ibn al-Qifṭī's *Ṭārīkh al-Ḥukamā*, ed. and trans. Emilie Savage-Smith, Simon Swain, and Geert van den Gelder, (Brill, 2019); and Ṣaʿīd al-Andalusī's *Ṭabaqāt al-umam*, ed. Louis Cheikho, (Maṭbaʿat al-Kāthūlīkiyya li-l-ābāʾ al-yasūʿiyyīn, 1912).

^{140.} Quoted in Netton, *Allāh Transcendent*, 98. From: Evelyn Waugh, *Officers and Gentlemen*, (Penguin Books, 1955), 122.

Neoplatonic philosophy was transmitted into Arabic by a number of translations, the most notable of which were the following: a summary of Plotinus's *Enneads* IV-VI came to be translated ¹⁴¹ into Arabic under the name of *Theology of Aristotle*, ¹⁴² and some content of Proclus's *Elements of Theology* were circulated as the *Book of the Pure Good (Kitāb fī īḍāḥ al-khayr al-maḥḍ)*, later known in the Latin world as *Liber de causis*, ¹⁴³ but the *Elements* itself was also translated in fuller form. In addition to these two very influential texts, Porphyry's *Eisagoge* functioned as a "life jacket for Aristotelian thought," and was one of enduring importance in the whole Islamicate intellectual tradition in the understanding of Aristotle's *Categories*. ¹⁴⁴ This process of "transmission," however, was hardly a direct and straightforward one, as the recent scholarship emphasizes its complex unfolding. ¹⁴⁵

^{141.} Peter Adamson rightly remarks that this "translation" should rather be understood as "free paraphrase," in "Theology of Aristotle," *Stanford Encyclopedia of Philosophy [archived]*, (5 June 2008), accessed 12 May 2025, https://plato.stanford.edu/archIves/spr2010/entries/theology-aristotle/. Translations from Greek into Arabic exhibited a spectrum of accuracy, ranging from "free paraphrases" to "painfully literal" translations, the first for Arabic Plotinus and the second for Aristotle's *Metaphysics*, for example. In the case where the original Greek text was altered, Dimitri Gutas explains that "[t]he changes and additions that we frequently see in the translated text vis-à-vis the Greek original were either amplificatory and explanatory, or systematic and tendentious. This means that some of the translations were deliberately not literal because they were made for a specific purpose and to serve certain theoretical positions already held." Gutas, *Greek Thought*, 146: Quoted in Peter Adamson, "Arabic Plotinus," PhD dissertation, University of Notre Dame, footnote on page 5.

The term "translation" is drawing increasing attention in the historiography of medieval Islam, as scholars become increasingly aware of the nuanced and varied, and even strategic, nature of the medieval practices of textual adaptation. Hayrettin Yücesoy's "Translation as Self-Consciousness: Ancient Sciences, Antediluvian Wisdom, and the 'Abbāsid Translation Movement," *Journal of World History* 20, no. 4 (2009): 523–57 provides a reflection on the Abbāsid translation practices in light of modern theories of George Steiner and Lawrence Venuti, arguing that translation practices were part of a larger politics of self-fashioning for the 'Abbāsid society. Medieval European theories and practices of translation were explored recently in Jeanette Beer (ed.), *A Companion to Medieval Translation* (Leeds: Arc Humanities Press, 2019).

^{142.} Cristina D'Ancona, "Pseudo-"Theology of Aristotle", Chapter I: Structure and Composition." *Oriens* 36 (2001): 78–112, Walker, Paul E. "Platonisms in Islamic Philosophy." *Studia Islamica*, no. 79 (1994): 5–25, Chase, Michael. "Porphyry and the Theology of Aristotle," in *Reading Proclus and the* Book of Causes, *Volume 2: Translations and Acculturations*, ed. Dragos Calma, 57–81, Brill, 2021; Peter Adamson, "Plotinus Arabus and Proclus Arabus in the Harmony of the Two Philosophers Ascribed to Al-Fārābī." In *Reading Proclus and the Book of Causes, Volume 2: Translations and Acculturations*, edited by Dragos Calma, 182–97, (Brill, 2021).

^{143.} On this, see Elvira Wakelnig, "Proclus, Arabic." A list of works known to Arabic readers is in al-Nadīm's Fihrist, 252; and al-Qiftī, Ta'rīkh, 89. Also see Gerhard Endress, Proclus Arabus: zwanzig Abschnitte aus der Institutio Theologica in arabischer Übersetzung, (Orient-Institut der Deutsches Morgenlaendischen Gesellschaft, 1973).

^{144.} Netton, Allāh Transcendent, 9.

^{145.} The "translation movement" should not be understood as a wholesale transfer of Greek learning into Arabic, nor should it be understood as the "Golden Age" of a supposed "Islamic civilization," conceived as a monolithic entity. In a recent piece written for a popular audience, Kevin van Bladel rightly pointed out the romantic and apologist nature of such conceptions and pointed out that the task of reconstructing a holistic history of the Arabic reception of Greek learning is still an ongoing effort: "There are thousands of texts surviving from the period of

As a side note, the degree to which the Ikhwān were aware of the doctrinal differences between Aristotle and Plato's philosophies is debatable. De Callataÿ reminds us that "[i]n contrast to Aristotle, whose works – with the notable exception of the Politics – were faithfully transmitted to the Muslim-Arab world, it is well known that Plato was received in a much more scattered and garbled form." ¹⁴⁶ Daniel De Smet expressed this scattered yet ubiquitous reception of Plato in Arabic philosophy as a *voie diffuse*, whereby the works of Plato were translated in a much more fragmented fashion than their Aristotelian counterparts. ¹⁴⁷ Zimmermann had argued that the ninth-century translation movement was inclined to view the Greek philosophical tradition as a whole, and attempted to partially close the distance between Plato and Aristotle's doctrines. ¹⁴⁸

_

the translation movement and its aftermath still unpublished and virtually forgotten today in neglected manuscript copies. The work of publishing and studying early Arabic texts goes on, and will continue for generations, in cooperation with curators and librarians, and with the benefit of the generosity of patrons and institutions." Kevin van Bladel, "The Translation Movement in Abbasid Baghdad," in *Baghdad: Eye's Delight. Exhibition at the Museum of Islamic Art*, (Doha: Qatar Museums, 2022): 163. Recent scholarship will therefore benefit more from micro-studies of various instances of textual transmission, rather than sweeping generalizations about an Abbasid translation movement.

^{146.} Godefroid de Callataÿ, "Introduction," in *On Magic: An Arabic Critical Edition and English Translation of EPISTLE 52a* (Oxford University Press, 2012): 21.

^{147.} On the reception of Plato in Islam, see Geoffrey Moseley, "Plato Arabus: On the Arabic Transmission of Plato's Dialogues. Texts and Studies," PhD dissertation at Yale University (2017); and Franz Rosenthal, 'On the Knowledge of Plato's Philosophy in the Islamic World', *Islamic Culture* 14 (1940): 387–422; F. Klein-Franke, 'Zur überlieferung der platonischen Schriften im Islam', *Israel Oriental Studies* 3 (1973): 120–139; D. K. Hasse, 'Plato arabico-latinus: Philosophy–Wisdom Literature–Occult Sciences', in *The Platonic Tradition in the Middle Ages: A Doxographic Approach*, ed. S. Gersh and M. Hoenen (Berlin–New York, 2002): 31–66. Daniel De Smet designated the ideas of Plato to have constituted a "voie diffuse" in medieval Islamicate literature, see De Smet, "Le Platon arabe et les Sabéens de Harrān. La « voie diffuse » de la transmission du platonisme en terre d'Islam," *Res Antiquae* 7 (2010): 73–86; and 'L'héritage de Platon et de Pythagore: la «voie diffuse» de sa transmission en terre d'Islam', in *Entre Orient et Occident : la philosophie et la science gréco-romaines dans le monde arabe*, ed. R. Goulet and U. Rudolph, 57e Entretiens sur l'Antiquité classique de la Fondation Hardt (Geneva-Vandoeuvres, 2011).

^{148.} Peter Adamson, "Theology of Aristotle," *Stanford Encyclopedia of Philosophy [archived]*, (5 June 2008), accessed 12 May 2025, https://plato.stanford.edu/archIves/spr2010/entries/theology-aristotle/.

The Ikhwānian scheme of Neoplatonic emanation: numbers and hypostases

Since the Ikhwān's epistemology is closely linked to their ontology, their treatment of the emanationist scheme of being is relevant here. As was explained previously, works of Neoplatonist philosophy came into wide circulation in the Islamicate intellectual circles especially from the ninth century onwards, with the emergence of doxographical and pseudepigraphical literature derived from the works of authors such as Plotinus and Proclus. This brought about new intellectual challenges for Muslim authors, who now had to find ways to converge the cosmogonic ideas they encountered in late ancient pagan philosophy with Qur'ānic creation narratives.

Like in most contemporary Muslim authors, the Ikhwān al-Ṣafā' also had to find ways to theoretically converge the Neoplatonic emanationist schemes with Qur'ānic accounts of creation. Their theory of emanation is distinct in at least a few aspects: 1) they incorporate what we may call a Pythagorean emphasis on numbers; 2) they propose nine hypostases instead of the Plotinian three or the Proclean four, happily integrating Matter and the beings of the sublunary world; 3) they define emanation as a constant, uninterrupted spiritual outflow; 4) they hierarchize individual human souls according to the model of this hierarchy of being. 149

^{149.} Further on the Ikhwān's Neoplatonism, see Cristina D'Ancona, "Platonic and Neoplatonic Terminology for Being in Arabic Translation," *Studia graeco-arabica* 1 (2011): 23-46. Cristina D'Ancona, "Greek into Arabic: Neoplatonism in translation," in The Cambridge Companion to Arabic Philosophy, 10-31. Cristina D'Ancona (ed.), *The Libraries of the Neoplatonists*, (Leiden, The Netherlands: Brill, 2007). For comparsion with al-Kindī see Richard J. McCarthy, "Al-Kindī's Treatise on the Intellect: Text and Tentative Translation," *Islamic Studies* 3, no. 2 (1964): 126. For a detailed examination of the vocabulary of emanation and creation in the *Rasā'il*, see Carmela Baffioni, "The Terms *Ibdā'*, *al-Mudba' al-Awwal*, and *Mubda'āt* in the Rasā'il Ikhwān al-Ṣafā': The Origin of the World and Ibdā'," in *More Modoque: Die Wurzeln der europaeischen Kultur und deren Rezeption im Orient und Okzident. Festschrift für Miklos Maroth zum siebzigsten Geburtstag, ed. Pal Fodor, Gyula Mayer, Martina Monostori, Kornel Szovak and Laszlo Takacs, (Forschungszentrum für Humanwissenschaften der Ungarischen Akademie der Wissenschaften, 2013), 293-312.*

The Ikhwān incorporated a Pythagorean sort of number symbolism into Neoplatonic emanation in their association of each step of the emanationist hierarchy with a number: "The relation of God to all Being is like that of the number One to all other numbers, and the relation of the Intellect is like that of the number Two, and the relation of the Soul to other beings is like that of the number Three, and the relation of the Matter to other beings is like that of the number Four." The formulation here can be described as an attempt to converge the Neoplatonic hypostases with an Islamic notion of Creator God (replacing the One) and with a Pythagorean number mysticism.

The Ikhwān did not only adopt the Plotinion scheme of emanation, but they expanded and elaborated on it. They suggested nine steps of emanation, which Netton summarizes as follows: "the Creator (al- $B\bar{a}r\bar{\imath}$), the Intellect (al-'Aql), the Soul (al-Nafs), Prime Matter (al- $Hay\bar{u}l\bar{a}$ al- $Ul\bar{a}$), Nature (al- $Tab\bar{\imath}$ 'a), the Absolute Body (al-Jism al-Mutlaq), the Sphere (al-Falak), the Four Elements (al- $Ark\bar{a}n$), and the Beings which live in this world (al- $Muwallad\bar{a}t$), divided among the mineral, plant and animal kingdoms." They describe the process both as origination ($ibd\bar{a}$ ') and emanation (favd).

Empiricist Neoplatonisms? A preliminary anatomy of the Ikhwān's epistemology

Knowledge is one of the central concerns of Platonic thought. Defining Platonism as "the summit of an intellectual approach to the universe," Pauliina Remes reminds us that "in Platonism, knowledge of eternal Forms is understood as the goal of the philosopher's life and

^{150.} Rasā'il I, 53. Wa-'lam yā akhī, 'ayyadaka llāhu wa-'iyyānan bi-rūḥin minhu, bi-'anna nisbata l-Bārī, jalla thanā'uhu, min al-mawjūdāt, ka-nisbat al-wāḥid min al-'adad, wa-nisbat al-'Aql minhā, ka-nisbat al-'ithnayn min al-'adad, wa-nisbat al-Nafs min al-mawjūdāt, ka-nisbat al-thalātha min al-'adad, wa-nisbat al-Hayūlā al-'Ūlā ka-nisbat al-'arba'a.

^{151.} Netton, Muslim Neoplatonists, 35.

the ultimate source of happiness and goodness."¹⁵² Despite such an emphasis on knowledge in the Platonic tradition, Christoph Helmig notes that studies on Neoplatonism have exhibited "a certain negligence when it comes to epistemological questions."¹⁵³

Any discussion of knowledge, especially in a Neoplatonic framework, hinges on a discussion of being. The theories of knowledge in the Neoplatonist corpus center on ontological relationships: the soul occupies the middle position between the intellect and the sensible world; interacting with the former through contemplation and intellection, and with the latter through sense perception. There are myriads of questions that emerge from the perceived disjunctures between the soul's imagined divine nature and its compulsory interaction with a much-disdained sensible world. An oft-pondered question, for instance, was how something could perceive something unlike it – since like can only perceive like. The ontological status of a thing, therefore, decided what it could perceive (and know). 154 Carmela Baffioni observes the same paradigm for the Ikhwān's epistemology:

The ... process of knowledge is ontologically legitimated by the fact that the individual souls are considered as faculties of the Universal Soul. If knowledge marks the passage from potentiality to actuality, such a passage depends on the ever-existing Celestial Universal Soul, which is knowledgeable in actuality. The more each individual soul increases its knowledge, the more it is close to the Universal Soul. Consequently, epistemology finds itself strictly linked to ontology as the Iḥwān seem to ground science in the fourth "Neo-platonizing" hypostasis of their cosmology. 155

^{152.} Remes, Neoplatonism, 156.

^{153.} Helmig, Forms, 6.

^{154.} Plotinus's view, the whole universe was one living being whose parts were held together by sympathy (συμπάθεια), and it as this sympathy between things that allowed one to perceive another – since "like perceived like." (*Enneads* IV.5.) Another notion, supported both by Alexander and Aphrodisias and Plotinus, was that the act of perception entailed an instance of identification with the thing perceived – at the moment of the soul's intellection of pure forms, the soul becomes the intellect Alexander of Aphrodisias, *On the Soul* 87,29-88,10; Plotinus, *Enn.* V.3.5.28 - 31; 42 - 44), Paulina Reemes, *Neoplatonism*, (Routledge, 2008), 148. The act of perception, therefore, entailed questions related to *being* – identity versus difference, union versus separation.

^{155.} Carmela Baffioni, "From Sense Perception to the Vision of God: a Path towards Knowledge according to the Iḥwān al-Safā," *Arabic Sciences and Philosophy* 8 (1998): 213-31.

The transition from "potentiality to actuality" in knowledge, however, is only possible through sensory input, and here the Ikhwān part ways with the Platonic paradigm. Although some previous scholars such as Nasr and Tibawi had interpreted the Ikhwān's epistemology as based on Platonic recollection, 156 this does not seem plausible in light of *Rasā'il* III, 424, where the Ikhwān refute the Platonic dictum of "knowledge is recollection." Is Ian Netton is also aware of this in saying that "there is hardly any Platonism in the *Rasā'il*," and he chooses to describe the Ikhwān's epistemology as one which modifies Aristotelian precepts into a Neoplatonizing framework, especially in how they incorporate the Stagirite's *Metaphysics*. In general, we need to remind ourselves that the *Rasā'il* is more of a compendium than an exposition of systematic philosophy. The epistemology it displays, likewise, is rather like an amalgam that combines Neoplatonic concept-formation with some elements of Aristotelian metaphysics, such as substance, matter, and form.

The Ikhwān's epistemology is based on sensory perception, in accordance with Aristotle and later Stoics. The Ikhwān posit that the soul is a *tabula rasa* before receiving instruction, (*De Anima*, 430a1) "a blank sheet of paper" (*waraq abyaḍ naqī*). ¹⁵⁹ To them, the soul acquires

156. Seyyed Hossein Nasr, *Cosmological Doctrines*, 102-3; Abdul Latif Tibawi, "Some Educational Terms in Rasā'il Ikhwān al-Ṣafā'," *Islamic Quarterly* 5:1-2 (1959) 60.

^{157.} Rasā il III, 424. "Then [you should] know that many of the wise (al-'uqalā) suppose that the things that are known by the primary faculties of the mind (awā il al-'uqūl) are innate, and in relation to their attachment to the body, they need to be recalled, and they say that to know is to remember, and [to support this] they have recourse to the saying of Plato: "knowledge is recollection." The matter is not as they assume; rather, what Plato intended by this saying it that the soul requires teaching until it becomes actually knowledgeable ('allāma bi'l-fi'l), which is then called "recollection." My translation from "thumma a lam inna kathīran min al-fuḍalā yazunnūna anna 'lashyā allatī tu 'lamu bi-'awā il al-'uqūl markūza, fa-nisbatuhā li-mā ... fa-hiya taḥtāju ilā al-tidhkār, wa yasmūna al-'ilma tadhakkuran. wa yaḥtajūna bi-qawli 'Aflāṭūn: al-'ilmu tadhakkur. Wa laysa al-'amru ka-mā zannū wa innamā 'arāda 'Aflāṭun bi-qawlihī: al-'ilmu tadhakkur, 'anna al-nafsu 'allāma bi'l-quwwa, fa-taḥṭāju ilā al-ta 'līm ḥattā yaṣīra 'allāma bi'l-fi'l ... thumma inna awwalu ṭarīq ta 'līm hiya al-ḥawāss, thumma al-'aql, thumma al-burhān, fa-lam lam yakun al-insān al-ḥawāss, lamā amkanahu an ya 'lama shay'an, lā al-mubṣarāt, wa-lā al-ma 'qūlāt, wa-lā al-maḥsūsāt al-battah. Wa al-dalīl 'alā ṣiḥhati mā qulna inna kulla mā lā tudrikuhu al-ḥawāss bi-wajhin min al-wujūd lā tatakhayyaluhu al-awhām, wa-mā lā tatakhayyaluhu al-awhām, lā tataṣawwaruhū al-'uqūl."

^{158.} Netton, Muslim Neoplatonists, 18 for the quote. Also see pages 17 and 114.

^{159.} Rasā'il IV, 51. Wa a'lam anna mathala afkāri al-nufūs qabla an yaḥṣula fīhā 'ilmun min al-'ulūmi wa i'tiqādın min al-'ārā'i ka-mathali waraq abyaḍ naqī lam yuktabu fīhi shay'.

knowledge first by sensory perception ($haw\bar{a}ss$), then by reasoning ('aql), and then by logical proof ($burh\bar{a}n$). They posit an imaginative faculty (al-mutakhayyila, corresponding to Greek $\phi\alpha\nu\tau\alpha\sigma(\alpha)$ which mediates between sensory data and the thinking faculty – in other words, an interface that collects sense impressions which are later to be abstracted into forms devoid of matter.

Inner senses: from sense perception to concept-formation

We have already pointed out that according to the Ikhwān, acquisition of knowledge starts with the senses. However, as long as the senses lead the individual to know only about material realities, they are not truly useful, since the Ikhwān contend that "the knowledge of sensible, corporeal things is the poverty of the soul and a state of dire necessity." Sensory perception, therefore, is only useful insofar as it leads the soul *beyond* the knowledge of corporeal realities (*al-umūr al-jismāniyya*), towards that of intelligible realities (*al-umūr al-'aqliyya*): "Know, my brother, that the Creator (*al-Bārī*) ... has made the pathways of the senses (*turuq al-ḥawāss*) as a gradual ascent towards the knowledge of intelligible realities (*ma 'rifat al-umūr al-'aqliyya*), which is the ultimate purpose of the soul."

Then, how do the Ikhwān describe the process whereby sensory perception can lead to the knowledge of intelligible realities? The explanation mostly lies in their discussion of the five internal senses (*al-quwā al-rūḥāniyya*), ¹⁶³ which denote the post-sensory faculties that process sensory data into actual knowledge. Their detailed explanation of the internal senses is

^{160.} *Rasā 'il* III, 424.

^{161.} Rasāʾil III, 247: thumma aʿlam anna maʿrifa al-ʾumūr al-jismāniyya al-maḥsūsa hiya faqr al-nafs wa-shiddat al-hāia.

^{162.} Rasā'il III, 246: i'lam yā akhī anna l-bārī, jalla jalāluhu ... ja'ala ṭuruqa l-ḥawāssi darajan wa-marāqiya yartaqī bihā ilā ma'rifati l-'umūri l-'aqliyyati llatī hiya l-gharadu l-'aqsā fī bulūgh al-nafs ilayhā.

^{163.} Literally, "spiritual senses." This is contrasted with the *al-ḥawāss al-jismāniyya*, which literally translates to "bodily senses." I choose to translate these as internal and external senses, respectively.

found in the Epistle 24: On Senses and Sensibilia, and builds mostly on the Aristotelian postsensory faculties delineated in the De Anima. However, there are differences: in contrast to Aristotle's three post-sensory faculties, they propose five.

Out of the five, the first three inner senses correspond to the Aristotelian post-sensory faculties, namely imagination (φαντασία/mutakhayyila), reflection (διάνοια/mufakkira), and memory (ἀνάμνησις/hāfiza). The Ikhwān explain that the function of the imaginative faculty (al-mutakhayyila) is to receive the impressions of sensory data, just as how the wax receives the imprint of the signet (naqsh al-faṣṣ). Then, the imaginative faculty conveys these impressions to the thinking faculty (al-mufakkira), so that the impressions are retained in the soul:

For it is among [the imaginative faculty's] properties ($min\ sha'nih\bar{a}$) that it at once conveys all of these [traces] to the thinking faculty (al-mufakkira); so when the sensed objects disappear from the view of the senses, those impressions ($rus\bar{u}m$) remain imagined as spiritual forms ($s\bar{u}ra\ r\bar{u}h\bar{a}niyya$) within [the soul's] essence – just as the imprint of the signet remains in the sealed wax, [these impressions remain in the soul] as spiritual forms devoid of matter ($hay\bar{u}l\bar{a}$). Thus, at that point, it [the soul] becomes like matter ($hay\bar{u}l\bar{a}$) to them, and they are within it like forms (suwar). 165

This process of separating the forms from their matter makes the object of knowledge intelligible to the intellect, and is very similar to the Aristotelian concept of abstraction (ἀφαίρεσις), which literally translates to a "stripping away" of *matter*, leaving only the Form of a thing. ¹⁶⁶ As Alexander of Aphrodisias explains, only pure forms are actually intelligible to the intellect, whereas composite entities (consisting of form and matter) are potentially

^{164.} Harry Austryn Wolfson, "The Internal Senses in Latin, Arabic, and Hebrew Philosophic Texts," *The Harvard Theological Review* 28, no. 2 (1935): 69–133.

^{165.} My translation from Rasā'il III, 248. fa-inna min sha'nihā anna tanāwalahā kullahā ilā quwwat almutafakkira min sā'atihā, fa-idhā ghābat al-mahṣūsāt 'an mushāhadat al-ḥawāss lahā, baqiyat tilka l-rusūm muṣawwara ṣūrat al-rūḥāniyya fī dhātihā, kamā yabqā naqsh al-faṣṣ fī l-sham' al-makhtūm muṣawwaran bi-ṣuwar rūḥāniyya mujarrada 'an hayūlāhā, fa-yakūnu 'inda dhālika lahā ka-l-hayūlā, wa-hiya fīhā ka-ṣuwar.

^{166.} Helmig, Forms, 29.

intelligible – a separation of form and matter is required. (Alexander of Aphrodisias, *De Anima*, 87,24 - 88,3)¹⁶⁷

After this, the thinking faculty deliberates on these impressions and decides what to preserve and what to discard. It conveys the spiritual forms that will be preserved to the retentive faculty (al-ḥāfiza), also referred to as memory. The fourth faculty is the speaking or expressive faculty (al-ṇāṭiqa) and the fifth and final one is the productive faculty (al-ṣāni a) which turns the ideas stored in the memory into material form. The chief instance involving the employment of this faculty is the craft of writing:

Since sounds [produced by speech] do not remain in the air except for the duration within which the ears receive their allotment, after which they fade, the Divine Wisdom devised the solution that the meanings of those pronouncements ($alf\bar{a}z$) be recorded through the craft of writing ($sin\bar{a}$ 'at al-kitāba).

Then it became the role of the constructive faculty $(al-s\bar{a}ni'a)$ to fashion shapes from lines using pens, and to record them on the surfaces of tablets $(wuj\bar{u}h\ al-alw\bar{a}h)$ and in the insides of scrolls, so that knowledge might remain as a benefit passed from the past to the future, as a vestige (athar) from the first generations to the last, and as a message from those in the present to those who are not yet present. 168

Herewith, the Ikhwān explain the scheme whereby the soul acquires knowledge of the intelligible realities. Sensory perception is the initial step towards acquiring knowledge, which supplies traces (*rusūm*, sg. *rasm*) of corporeal realities to the imagination (*al-mutakhayyila*). Once the imagination receives the *forms* of the perceived things, it sends these forms to be

^{167.} For an overview of Arabic Alexander, see Charles Genequand, "Alexander of Aphrodisias and Arabic Aristotelianism," in *Encyclopedia of Medieval Philosophy: Philosophy between 500 and 1500*, ed. Henrik Lagerlund, (Springer, 2011), 60-2. Alexander's *On the Intellect* was translated into Arabic and was influential in how the Aristotelian active intellect (*De Anima*) was interpreted by later philosophers. Genequand remarks that al-Fārābī's (d.) *Epistle on the Intellect* and Ibn Rushd's *Great Commentary on On the Soul*, as well as Avicenna's overall interpretation of the Aristotelian intellect, were drawn from this translation of Alexander's commentary. However, the translation itself had errors and posited an "acquired intellect" which did not in fact exist in the original – these were taken up by the Arabic readership as Aristotel's own ideas.

^{168.} Rasā'il III, 249. Ma'lūmātihā, alqat lahā 'alfāzan min ḥurūf al-mu'jam, wa-ja'alathā ka-l-sammāti li-tilka l-ma'ānī llatī fī dhātihā, wa-'abbarat 'anhā li-l-quwwat al-sāmi'a min al-ḥāḍirīn. Wa-li-mā kānat al-'aṣwāt lā tamakkathu fī l-hawā' illā raythamā ta'khudhu l-masāmi' ḥazzahā, thumma taḍmaḥilu, iḥtālat al-ḥikmat al-'ilāhiyya bi-anna quyyidat ma'ānī tilka l-'alfāz bi-ṣinā'at al-kitāba. Thumma inna min sha'n al-quwwat al-ṣāni'a an taṣūgha lahā min al-khuṭūṭi l-'ashkāl bi l-aqlām, wa-tūdi'uhā /tūda'uhā wujūh al-alwāḥ wa-butūn al-ṭawāmīr, li-yabqā l-'ilmu mufīdan fā'ida min al-māḍīna li-l-ghābirīn, wa-'atharan min al-awwalīna li-l-ākharīn, wa-khitāban min al-hādirīna li-l-ghā'ibīn.

processed by the thinking faculty (al-mufakkira). The thinking faculty is considered the most superior of all, since it is tasked with deliberating on these forms (suwar, sg. suvar) and their meanings ($ma \ \bar{a}n\bar{t}$, sg. $ma \ \bar{n}a$); ultimately deriving conclusions from the information supplied by the senses and the imagination. It retains some forms by sending them to the memory (al- $h\bar{a}fiza$), and discards others. In the end, the forms that are retained are imprinted on the soul, as the "wax is imprinted with the seal's mark." This is the stage where knowledge is achieved, since in the Ikhwān's definition, knowledge is the "form (suvar) of the thing known ($ma \ lum$) imprinted on the soul of the knower."

It is not clear, though, at which stage the form and matter of things get separated according to the Ikhwān. If they also followed Aristotle on this, the separation of form and matter (abstraction, ἀφαίρεσις) would take place at the sense organs: "A sense is what has the power of receiving into itself the sensible forms of things without the matter, in the way in which a piece of wax takes on the impress of a signet-ring without the iron or gold." (*De Anima*, 424a18-20) It is plausible that they might have adopted this scheme of *sense perception as simultaneous with abstraction* along with their adoption of the analogy of wax and signet, which they used generously throughout the Epistle 24.

The picture that emerges from here is that the Ikhwān posit sensory perception as a way of achieving knowledge, as opposed to the Platonic model. Their sense theories are largely inspired from Aristotle's: their descriptions of sound and its perception in the Epistle 5 and Epistle 24 are largely consonant with those in *De Anima* II-8 as well as their descriptions of the internal senses. They also employ the Aristotelian dichotomy of potential versus actual knowledge, by writing that the soul is only potentially (*bi l-quwwa*) knowledgeable until it

^{169.} Previous uses of the analogy of the wax-seal include Plato's *Theaetetus* 181-5 and Aristotle's *De Anima* 412b7, and 424a.

^{170.} inna l-'ilm huwa ṣūrat al-ma'lūm fī nafs al-'ālim. Rasā'il IV, 65.

acquires knowledge through sense perception. They also seem to be inspired by doxographies of Stoic philosophers in their epistemological positions, as was demonstrated above.

Here is a difficulty: the epistemologies of Aristotle and other Greek authors from whom the Ikhwān adopted their sense theories seem to work especially well with how visual perception relates to knowledge (thanks to the dominance of visual metaphors in Greek philosophical tradition in general), whereas the question of how *sound* fits into this perceptual model is less straightforward. How does music fit into such a framework—what kind of forms do musical tones and melodies convey?

Sound and cosmic hierarchies

In his piece on sound and religion, Charles Hirschkind makes the general observation that Muslim and Christian religious imaginations used sounds to "define and identify" locations in their hierarchies of the cosmos:

Distinct kinds of sound often define and identify distinct locations within religious topographies. Depictions of heaven and hell in eschatological writings of Christianity and Islam, for example, have often been acoustically configured. Demonic laughter, pain-riddled screams, horrifying shrieks and roars... have announced the descent into the underworld for Muslims and Christians across the centuries.¹⁷¹

In such imaginations, the lower levels of existence are identified with less pleasant sounds – one immediately recalls the soundscape of Dante's *Inferno*, with all its thunderclaps, cries, and sounds of tambourine.¹⁷² The Qur'ān also tells us about the soundscape¹⁷³ of hell: "When they are cast therein, they will hear its inhalation as it blazes forth. It almost bursts up

^{171.} Charles Hirschkind, "Religion," in *Keywords in Sound*, ed. David Novak and Matt Sakakeeny, (Duke University Press, 2015), 169.

^{172.} Francisco Ramirez Santacruz, "Sounds of Inferno," *Epos Revista de filologia* 27 (2011): 235-48. A musical reference to the work is Franz Liszt's *Après une lecture de Danté*, from his *Années de pèlerinage*, *Ilème année: Italie*, no. 7 (1827) to which the reader is highly recommended to listen. Liszt interprets the sounds of Dante's Heaven, Hell, and Purgatory much better than any article could achieve.

^{173.} The term soundscape was coined by Richard Murray Schafer, in his *The Soundscape: the tuning of the world,* (New York: Knopf, 1977).

with fury." (*idhā ulqū fīhā sami ʿū lahā shahīqan wa-hiya tafūru takādu tamayyazu min alghayz*, 67:7-8) On the other hand, the higher levels of existence are identified with harmonious and pleasant sounds, most famously captured by the Pythagorean idea of the music of the spheres. ¹⁷⁴ Music, therefore, belongs to a higher realm of existence by virtue of its definition as well-composed sound.

The epistemological import of music is connected to its celestial origins – therefore, its superior place in a cosmo-ontological hierarchy. In their usual obsession with hierarchization, the Ikhwān hierarchize different kinds of sounds in accordance with their imagined locations in the cosmos. A sound's placement within this hierarchy depends, as we have said, on the extent to which it is "well-proportioned" and "harmonious." For example, the sound of the Greek organ, used in warfare, ¹⁷⁵ is placed low in the hierarchy, since its sound disturbs the equilibrium of the soul. ¹⁷⁶ At the top is the music of the spheres, which is described as well-proportioned (*mutanāsib*) and harmonious. It is through its celestial origins that music acquires a Platonic function of *reminding* the souls of their previous dwelling-place.

_

^{174.} Ibn al-Qayyim's (d. 1350) work describing the blessings of Paradise, Ḥādi al-arwāḥ ilā bilād al-afrāḥ, has a section on the music and sounds of Paradise.

^{175.} Wright, On Music, 97. The eighth- and ninth-century Baghdad also saw the translation of some works dealing with the uses and construction of Greek organs. A pseudepigraphical Book of Governance (Kitāb al-siyāsa), claimed to be written by Aristotle for his pupil Alexander the Great, advised the use of hydraulic organs in warfare to scare the enemy. Treatises on the construction of hydraulic organs were also translated and circulated: one extant treatise as such was attributed to a certain Mūristis. The first folio of Mūristis's treatise in the Ayasofya MS (no. 202443) reads very similarly to a passage from Kitāb al-siyāsa, saying that the hydraulic organ was used in the army to make long-distance summons, and it is followed by mechanical instructions and drawings. On Mūrisţis see Ibn al-Qiftī, Tārīkh al-Ḥukamā' [History of Philosophers], ed. Julius Lippert (Dieterichsche Verlagsbuchhandlung, 1903) 322. But the organ was not solely perceived as a military instrument: its musical capabilities were also recognized. It is known that Banū Mūsā, two Persian brothers employed in Caliph al-Ma'mūn's court, composed a treatise on how to construct an automatic hydraulic organ, cf. Amnon Shiloah, Theory of Music in Arabic Writings, 70. What is worth noting here is that the absence of historical testimonies from the period on the organ's actual musical usage in daily life suggest that the organ was rather seen as a mechanical curiosity, a merveille d'ingénierie, and possibly only a tiny minority of the Baghdādī elite at best actually owned one. For further discussion, see Henry George Farmer, The Organ of the Ancients from Eastern Sources, (Reeves, 1931).

^{176.} Similar to Aristotle, the Ikhwān also define sense organs as being consituted of a certain proportion. Being exposed to certain unpleasant sensory stimuli can disrupt this proportional constitution. See Wright, *On Music*, 97; and *De Anima* II.12, 424a26-9.

The Ikhwān are following the Platonic tradition *en large* here, which lauded music for its capability to remind souls of their celestial origins. A passage from Plutarch, for example, does well to summarize this idea in a very similar fashion to the Ikhwān.

[Music] creates in [souls] a passionate love for the heavenly and divine, and forgetfulness of mortality; it possesses them and enchants them with its spell, so that in joyfulness they follow the Sirens and join them in their circuits. Here on Earth a kind of faint echo of that music reaches us, and appealing to our souls through the medium of words, reminds (ἀναμμνήσκει) them of what they experienced in an earlier existence. The ears of most souls, however, are plastered over and blocked up, not with wax, but with carnal obstructions and affections. But any soul that through innate gifts is aware of this echo, and remembers that other world, suffers what falls in no way short of the very maddest passions of *love*, *longing and yearning* to break the tie with the body, but unable to do so." (Plutarch, *Quaestiones conviviales* IX 14.6.745D-F trans. Sandbach, emphasis mine.)

The Ikhwān also use a similar narrative of music creating a feeling of yearning in souls to return to their earlier, blissful existence in the heavens: "The tones produced by the movements of the musician remind the individual souls ... of the world of the celestial spheres, just as the tones produced by the movements of the celestial spheres and the heavenly bodies remind the souls that are there of the joy of the world of the spirits," and when the individual souls remember their earlier existence, "they then yearn to ascend there and join their fellow souls, saved long ago from amongst the people of yore." As a further Platonic element, the feeling of yearning has a mimetic import for the Ikhwān, since they later explain that human soul's yearning for becoming like celestial spirits is similar to children's yearning to become like adults, or pupil's yearning to become like their teacher. The celestial music has a parental and causal relationship to the music on earth. 179

177. Wright, On Music, 120.

^{178.} Wright, On Music, 118.

^{179.} For an overview of *mimesis* in Plato's philosophy of the arts, see Edith Watson Schipper, "Mimesis in the Arts in Plato's Laws," *The Journal of Aesthetics and Art Criticism* 22, no. 2 (1963): 199–202. The Ikhwān were aware of this notion, as they paraphrase *Republic* X.596-598 in the last pages of their Epistle on Music, see Wright, *On Music*, 171.

Spiritual-cosmological ranks and sound perception

In the Ikhwān's discussion of the music of the spheres, two figures, Pythagoras¹⁸⁰ and Hermes Trismegistus, stand out as sages who ascended to the heavens to hear the music of the spheres. ¹⁸¹ As mentioned in the first chapter, the ascension motif here is important in its placement of these two figures in a spiritual and cosmic hierarchy – imagined to be at the same rank as angels (inhabitants of the heavens), they get to hear and know about celestial sounds. Thanks to their education in the quadrivium and their spiritual purification, they can hear celestial sounds and contemplate them. ¹⁸² Al-Jildakī (d. 1342) testifies to the direct correlation between a person's degree of spiritual purity and their ability to perceive the meanings

^{180.} The Ikhwān quote from Pythagoras' Golden Verses, and some of their favorites seem to be the verses 70-71 that relate to apotheosis (ta'alluh in Arabic), quoted four times at different occasions: "If you do what I told you, O Diogenes, indeed you will separate from this body and start flying in the air like a bee, and then you will become a spiritual traveler. You will not return to your human condition, and will be delivered from death." My translation from "wa-qāla Fīthāghūras fī l-Waṣiyya al-Dhahabiyya: idhā fa alta mā qultu laka yā Dīyūjānus, wa-fāraqta hādha l-badan ḥattā taṣīru naḥlan fī l-jaww, fa-takūnu ḥīna-idhin sā'iḥan ghayr 'ā'idin ilā l-insāniyya wa-ghayr qābilin ilā l-mawt." Rasā 'il I, 138. For a full list of occurrences of this quote see Carmela Baffioni, "The 'Brethren of Purity' and the Pythagorean Tradition," in Brill's Companion to the Reception of Pythagoras and Pythagoreanism in the Middle Ages and the Renaissance, (Leiden, The Netherlands: Brill, 2021): 310. Baffioni takes this quote to be corresponding to The Golden Verses v. 70-71. The original can be found in the J. C. Thom's edition (Brill: 1995), 98-9: "ην δ' ἀπολείψας σωμα ές αἰθέρα ἐλεύθερον ἔλθης, ἔσσεαι ἀθάνατος, θεὸς ἄμβροτος, οὐκέτι θνητός," which Thom translates as "Then, if you leave the body behind and go to the free aither, you will be immortal, an undying god, no longer mortal." The Rasā'il portrays the apotheosis of the soul as the ultimate purpose of life. With regards to the sources of Pythagorean ideas, Ibn al-Nadīm and Ibn al-Qiftī both list the Pythagorean Golden Verses as one of the works of Proclus, that was partly translated by Thābit ibn Qurrā (d. 901) before his passing away. See Fihrist I, 252; and Ta'rīkh, 89; Cf. Anna Izdebska's studies on Arabic Pythagoras, such as "The Pythagorean Metaphysics of Numbers in the Works of the Ikhwān al-Safā' and al-Shahrastāni," in Pythagorean Knowledge from the Ancient to the Modern World: Askesis, Religion, Science, ed. Renger and Stavru, (Wiesbaden: Harrassowitz Verlag, 2016); Anna Izdebska, "Man, God and the Apotheosis of Man in Greek and Arabic Commentaries to the Pythagorean Golden Verses," The International Journal of the Platonic Tradition 10, 1 (2016): 40-64, "The Attitudes of Medieval Arabic Intellectuals towards Pythagorean Philosophy: Different Approaches and Ways of Influence," in Cultures in Motion: Studies in the Medieval and Early Modern Periods, ed. Daniel T. Rodgers, Bhavani Raman, and Helmut Reimitz (Princeton: Princeton University Press, 2014); "Popular Pythagoreanism in the Arabic Tradition: Between Biography and Gnomology," in Brill's Companion to the Reception of Pythagoras and Pythagoreanism in the Middle Ages and the Renaissance, ed. Irene Caiazzo, Constantinos Macris, and Aurélien Robert, (Leiden: Brill, 2021): 193-228. Andrew Hicks, "Music and the Pythagorean Tradition from Late Antiquity to the Early Middle Ages," In Brill's Companion to the Reception of Pythagoras and Pythagoreanism in the Middle Ages and the Renaissance, (Leiden, The Netherlands: Brill, 2021): 82-110.

^{181. &}quot;[T]heir souls yearn to ascend [to the world above] in order to listen to these [harmonies] and to gaze upon these [movements], just as the soul of Hermes Trismegistus ascended and saw - he who is Idris the prophet, peace be upon him, and just as the soul of the sage Pythagoras heard, after it had been purified of its base physical desires and refined by spiritual thought and arithmetical, geometrical, and musical mathematics." Wright, *On Music*, 148. 182. Wright, *On Music*, 148.

embedded in sounds. Regardless of the kind of sound involved, (whether it is speech, wind, birdsong, or music) a purified person could hear its meaning:

What we described earlier in this book anticipated [what we say here about] the perception of sounds and phonemes. That is, if the essence $(dh\bar{a}t)$ of people is purified, their hearing is strengthened and increases to the degree that they hear sounds from a [great] distance and perceive many meanings in the whisperings of the air, even in a ripple of water or in the tinkling of pots and pans. They may even hear the voices of spiritual beings $(al-arw\bar{a}h \ al-r\bar{u}h\bar{a}niyya)$ and understand the language of the birds that sing in the trees. Likewise, they understand the language of all the other animals. Understand this, people! We have demonstrated this [elsewhere] in The Proof on the Secrets of the Science of Balances and in the chapter on special properties $(khaw\bar{a}ss)$ in The Treasure of Special Attribution. 183

Not only was the purified person more able to discern the meanings in sound, but they could also hear more sounds than the average person: they could hear the sounds of angels and celestial beings—just as Pythagoras heard the music of the spheres. Therefore, here is the connection between one's higher spiritual status, which places them higher on a cosmological hierarchy, and their epistemic prerogative—as we have seen in the case of the Qur'ānic cosmologies. We can say that the "epistemic prerogative" here is both quantitative (ability to hear *more* sounds), and qualitative (ability to *better* perceive the meanings of sounds heard).

How music acts on the soul

It should be clearer, by now, that the Ikhwān supposed a relationship between cosmoontological localities of sound and its epistemic value. But to answer the question of how music leads to the knowledge of intelligible realities, we should also probe the interaction between music and soul, as the Ikhwān described it. First thing to note is the Aristotelian formulations of form ($s\bar{u}ra$), matter ($hay\bar{u}l\bar{a}$), and substance (jawhar) that they use in relating the two. They

^{183.} Christian Lange, "Al-Jildakī (fl. 8th/14th c.) on the alchemy of the senses," *Islamic Sensory History*, vol. 2: 600-1500, ed. Christian Lange and Adam Bursi (Leiden-Boston: Brill, 2024) 301.

equate the substance of music and human soul, ¹⁸⁴ and posit that music takes the human soul as its object – to be shaped, redefined, and informed:

In every manual craft the matter $(hay\bar{u}l\bar{a})$ dealt with consists of naturally occurring material, and all its products are physical forms. The exception is music, for the matter it deals with consists entirely of spiritual substances $(jaw\bar{a}hir)$, namely, souls of those who listen to it. The effects it has on them are also entirely spiritual. ¹⁸⁵

Hereby, the Ikhwān designate music as dealing not with physical matter ($hay\bar{u}l\bar{a}$), but with spiritual substance (jawhar), and thence, souls. In the following paragraphs, they justify this by enumerating the psychological effects of different kinds of music by their virtue of inspiring a variety of moods in the souls.

As Fadlou Shehadi pointed out, the Ikhwān's treatment of music is also unique in the sense that they come up with a theory of how music interacts with the human soul, using the Aristotelian dialectic of form ($s\bar{u}ra$) and matter ($hay\bar{u}l\bar{a}$). This interaction can be summed up in two stages. To begin with, music itself is the product of form and matter: the sounds are the unshaped matter ($hay\bar{u}l\bar{a}$), and the mathematical rules by which they are composed make up the form ($s\bar{u}ra$). To represent this in another way, we could think about one of the Ikhwān's favorite analogies—the analogy of the shirt (al- $qam\bar{t}s$). The shirt's matter is the cloth, and the way the cloth is cut and sewed makes up its form. 187

The second stage involves the interaction between music and human soul: here, music is depicted as composed of an inner meaning (ma ' $n\bar{a}$) and external sound-form. The internal meaning is conveyed through the container of sounds: "The ideas contained in these notes and measured melodies have the status of the spirits lodged in bodies." While the bodily ear perceives the sound-form, the soul's ear perceives the inner meaning contained in the sound.

^{184.} Wright, On Music, 146.

^{185.} Wright, On Music, 76.

^{186.} Shehadi, Philosophies, 46.

^{187.} Netton, Muslim Neoplatonists, 24.

^{188.} Wright, On Music, 117.

This is akin to Augustine's formulation of external and internal hearing as discussed in the previous chapter. The goal of listening to music, according to the Ikhwān, is to perceive this inner meaning. In this interaction, musical meaning acts as the form (\bar{sura}) in relation to the soul as matter $(hay\bar{u}l\bar{a})$, transforming the latter and reminding/informing it of its previous existence.

In conclusion, this chapter explored how "knowing through sound" is described in the *Rasā'il*. With a particular focus on the Epistle on Senses and Sensibilia, and Epistle on Music, I asked how music leads to knowledge of intelligible realities in the thought of the Ikhwān. The answer is multilayered, and should be understood in considering the theories of perception and knowledge and a wider cosmo-ontological framework. The Ikhwān make use of a number of ancient and late ancient notions relating to ontological relationships and processes of knowing, which eventually make up their narrative around how music leads to the knowledge of intelligible realities.

Conclusion

The Ikhwan al-Ṣafa''s Epistle on Music is important in its portrayal of sounds (and music as well-composed sound) as having epistemic significance. This thesis used Steven Feld's concept of acoustemology (knowing through hearing) to analyze the ontological and epistemological relationalities of sound in medieval Islamicate literature en large and in the Rasā'il Ikhwān al-Safā' in particular. As far as the scope of this thesis allowed, I demonstrated that sounds feature in Islamicate literature as a modality of God's relating to His creation revelation narratives used sound as their primary medium, testifying to the epistemic import of sound as a mediator between the human and the divine. Neoplatonizing authors of medieval Islam placed words and phonemes on a higher level of existence than the Intellect, since the agency of sounds was imagined to mediate between the transcendent godhead and everything else. Qur'anic cosmologies depicted a vivid picture of knowledge descending through cosmoontological hierarchies, with the medium of sound. I took up the Epistle of Music in this context, and looked at how their largely Aristotelian narratives of sense perception leads to the knowledge of intelligible realities in the context of the perception of sounds and music. In the Ikhwān, the perception of music is not a fact in and of itself, but it is almost always connected to the teleological notion of coming to know the intelligible realities and thereby ascending to the heavenly sphere. In this, the Ikhwan both echo the (Neo)Platonic tradition and the late ancient cosmology of the Qur'ān. Overall, the picture that emerges is one where, as Feld argued, relational ontologies (such as cosmic hierarchies and correspondences) determine the knowledge relationships construed around sounds and hearing.

Bibliography

Primary Sources

- al-Andalusī, Ṣaʿīd. *Ṭabaqāt al-umam*. Edited by Louis Cheikho. Maṭbaʿat al-Kāthūlīkiyya li-lābāʾ al-yasūʿiyyīn, 1912.
- al-Ḥamdānī, Ḥusayn. "Rasā'il Ikhwān al-Ṣafā' in the Literature of the Ismā'īlī Ṭaiyibī da'wat." Der Islam 20 (1932): 281-300.
- al-Hujwīrī, Abū al-Ḥasan ʿAlī ibn ʿUthmān al-Jullābī. *Kashf al-Mahjūb*. Edited and translated into Arabic by Isʿād ʿAbd al-Ḥādī Qindīl. Beirut: Dār al-Naḥḍa al-ʿArabiyya, 1980.
- al-Isfaḥānī, al-Rāghib. Al-Mufradāt fī gharīb al-Qur'ān.
- al-Jawziyya, Ibn Qayyim. *Ḥādi al-arwāḥ ilā bilād al-afrāḥ*. Edited by Zā'id ibn Aḥmad al-Nashrī. Dār 'ālam al-fawā'id, 2007 [1428 AH].
- al-Rāzī, Fakhr al-Dīn. Mafātīh al-ghayb, 32 vols in 16. Beirut: Dār al-Fikr, 1981
- Aristotle, *Aristotle in 23 Volumes*. Translated by Hugh Tredennick, Cambridge, MA: Harvard University Press; London, William Heinemann Ltd. 1933, 1989.
- Augustine. St. Augustine's Confessions, in 2 vols. With an English translation by William Watts. The Loeb Classical Library, 1912..
- Ibn al-Manzūr, Muḥammad ibn Mukarram. *Lisān al-ʿarab*, in 20 vols. Bulaq, Cairo: al-Maṭbaʿat al-kubrā al-mīriyya, 1883-90.
- Ibn al-Nadīm. Kitāb al-Fihrist, in 2 vols. Edited by Gustav Flügel. F. C. W. Vogel, 1872.
- Ibn al-Qifti. *Tārīkh al-Ḥukamā* '. Edited by Julius Lippert. Dieterichsche Verlagsbuchhandlung, 1903.
- Ibn Juljul. *Ṭabaqāt al-aṭibbāʾ wa-l-ḥukamāʾ*. Edited by Fuʾād Sayyid. Maṭbaʿat al-Maʿhad al-ʿilmī al-furansī, 1955.
- Ikhwān al-Ṣafā', *Rasā'il al-Ikhwān al-Ṣafā wa khullān al-wafā* (4 vols.), edited by Buṭrūs al-Bustānī. Beirut: Dār Ṣādir, 1957.
- Ḥāfiẓ Abū Ṭāhir al-Zubair ʿAlī Zāʾir, ed. *English Translation of Sunan al-Nasāʾī*, in 6 vols. Translated by Naṣīruddīn al-Khaṭṭāb. Darussalam, 2007.
- Khattab, Mustafa. *The Clear Qur'ān: a thematic English translation of the message of the Final Revelation*. Book of Signs Foundation, 2016.
- al-Tamīmī, Abū Ḥanīfa al-Nuʿmān ibn Ḥayyūn [Qāḍī Nuʿmān]. *Asās al-taʾwīl*. Edited by ʿĀrif Tāmir. Beirut: Dār al-thaqafa, 1996.

- Thom, Johan C. *The Pythagorean* Golden Verses: with introduction and commentary. Brill: 1995.
- Wright, Owen, ed. *On Music: an Arabic Critical Edition and Translation of the Epistle 5.*Oxford University Press in collaboration with the Institute of Ismaili Studies, 2011.

Secondary Sources

- Ab Arnim [von Arnim], Ioannes [Hans]. *Stoicorum veterum fragmenta*, vols. 1-3, (Lipsiae [Leipzig]: B. G. Teubneri, 1921): vol. 2, 83 (= Ps. Plutarch, *Plac*. IV 11).
- Abrahamov, Binyamin. "The 'Bi-Lā Kayfa' Doctrine and Its Foundations in Islamic Theology." *Arabica* 42, no. 3 (1995): 365–79.
- Adamson, Peter. "A Study of the 'Theology of Aristotle' and Related Texts." PhD Dissertation, University of Notre Dame, 2000.
- "Plotinus Arabus and Proclus Arabus in the Harmony of the Two Philosophers Ascribed to Al-Fārābī." In *Reading Proclus and the Book of Causes, Volume 2: Translations and Acculturations*, edited by Dragos Calma. Brill, 2021.
- Amir-Moazzi, Mohammad Ali, ed. Le voyage initiatique en terre d'Islam: ascensions célestes et itinéraires spirituels. Peeters, 1996.
- Ansari, Mohammad Sadegh. "Learning and Patronizing the Science of Music among the Elite of Medieval Baghdad." *Journal of Abbasid Studies* 6 (2019): 123-46.
- "Learning the Science of Music in Medieval Baghdad." In *The Science of Music:*Knowledge Production in Medieval Baghdad and Beyond. Cambridge University Press, 2025.
- Arif, Syamsaddin. "Rethinking the Concept of *Fitra*: Natural Disposition, Reason and Conscience." *American Journal of Islam and Society* 40 3-4 (2023): 77-103.
- Assadi, Nasrin Bani, ed. Freedom Revisited: A Comparative Theological Approach to the Ouestion of Free Will in Islam. Brill, 2024.
- Baffioni, Carmela. "Ikhwān al-Ṣafā'," in Stanford Encyclopedia of Philosophy, https://plato.stanford.edu/entries/ikhwan-al-safa/.
- "From Sense Perception to the Vision of God: a Path towards Knowledge according to the Iḥwān al-Safā," *Arabic Sciences and Philosophy* 8 (1998): 213-31.
- "Prophecy, Imamate, and Political Rule among the Ikhwan al-Safa'." In *Islam, the State and Political Authority* (2011): 75-92.
- Balty-Guesdon, Marie-Genevieve. "Le *Bayt Al-Ḥikma* de Baghdad," *Arabica* 39, no. 2 (1992): 131–50.

- Belo, Catarino. Chance and Determinism in Avicenna and Averroes. Brill, 2007.
 Blumenberg, Hans. "Licht als Metapher der Wahrheit: Im der philosophischen Begriffsbildung," Studium Generale 10, no. 7 (1957): 432–447; from Hans Blumenberg, Ästhetische und meta phorologische Schriften, ed. Anselm Haverkamp (Frankfurt am Main: Suhrkamp, 2001), 139–171.
 ——— "Light as a Metaphor for Truth: At the Preliminary Stage of Philosophical Concept Formation." Translated by Joel Andersen. In Modernity and the Hegemony of Vision, edited by David Michael Levin. University of California Press, 1993.
- Bohlman, Philip V. "The European Discovery of Music in the Islamic World and the 'Non-Western' in 19th-Century Music History." *The Journal of Musicology* 5, no. 2 (1987): 147–63.
- Böwering, Gerhard. *The Mystical Vision of Existence in Classical Islam*. Berlin, New York: De Gruyter, 1979.
- Butler, Shane, and Sarah Nooter, eds. Sound and the Ancient Senses. Routledge, 2019.
- Chase, Michael. "Porphyry and the Theology of Aristotle." In *Reading Proclus and the* Book of Causes, *Volume 2: Translations and Acculturations*, edited by Dragos Calma. Brill, 2021;
- D'Ancona, Cristina, ed. The Libraries of the Neoplatonists. Brill, 2007.
- "Greek into Arabic: Neoplatonism in translation." In *The Cambridge Companion to Arabic Philosophy*, edited by Peter Adamson and Richard C. Taylor. Cambridge University Press, 2006.
- _____ "Platonic and Neoplatonic Terminology for Being in Arabic Translation." *Studia graeco-arabica* 1 (2011): 23-46.
- "Pseudo-"Theology of Aristotle", Chapter I: Structure and Composition." *Oriens* 36 (2001): 78–112.
- Daiber, Hans. Aetius Arabus: die Vorsokratiker in arabischer Überlieferung. Wiesbaden: Franz Steiner, 1980.
- De Callataÿ, Godefroid, ed. On Magic: An Arabic Critical Edition and Translation of the Epistle 52a. Oxford University Press in association with the Institute of Ismaili Studies, 2011.
- "Encyclopaedism on the Fringe of Islamic Orthodoxy: The Rasā'il Ikhwān al-Ṣafā', the Rutbat al-ḥakīm and the Ghāyat al-Ḥakīm on the Division of Science." *Asiatische Studien* 71(3) (2018): 857-77.
- _____ Ikhwân al-Safa': A Brotherhood of Idealists on the Fringe of Orthodox Islam. Oneworld, 2005.

- and Sébastien Moureau. "Again on Maslama ibn Qāsim al-Qurṭubī, Ikhwān al-Ṣafā'... and Ibn Khaldūn: New Evidence from Two Manuscripts of the Rutbat al-Ḥakīm." *Al-Qanṭara*, 37 no. 2 (2016): 329-72.
- De Cillis, Maria. Free Will and Predestination in Islamic Thought: Theoretical Compromises in the Works of Avicenna, al-Ghazālī, and Ibn ʿArabī. Routledge, 2013.
- De Smet, Daniel. "L'héritage de Platon et de Pythagore: la «voie diffuse» de sa transmission en terre d'Islam." In *Entre Orient et Occident : la philosophie et la science gréco-romaines dans le monde arabe*, edited by Richard Goulet and Ulrich Rudolph. Geneva-Vandoeuvres, 2011.
- "Le Platon arabe et les Sabéens de Harrān. La « voie diffuse » de la transmission du platonisme en terre d'Islam." *Res Antiquae* 7 (2010) : 73–86.
- De Vaulx d'Arcy, Guillaume. "Aḥmad b. Al-Ṭayyib al-Saraḥsī, réviseur de l'Introduction Arithmétique de Nicomaque Gérase et rédacteur des Rasā'il Iḥwān al-Ṣafā'." *Arabic Sciences and Philosophy* 29 (2019): 261-83.
- Diwald, Susanne. Arabische Philosophie und Wissenschaft in der Enzyklopädie Kitāb Iḥwān aṣ-Ṣafā; die Lehre von Seele und Intellekt. Wiesbaden: Harrassowitz, 1975.
- During, Jean, Max Peter Baumann, Marianne Bröcker, and Linda Fujie. "Hearing and Understanding in the Islamic Gnosis." *The World of Music* 39, no. 2 (1997): 127–37.
- Eisenlohr, Patrick. Sounding Islam: Voice, Media, and Sonic Atmospheres in an Indian Ocean World. 1st ed. University of California Press, 2018.
- el-Bizri, Nader. "Foreword." In *On Music: An Arabic Critical Edition and English Translation of Epistle 5*, edited by Owen Wright. New York: Oxford University Press, 2012.
- "Prologue." In Epistles of the Brethren of Purity: The Ikhwān al-Ṣafā' and their Rasā'il: An Introduction, edited by Nader El-Bizri. Oxford University Press, 2008.
- Endress, Gerhard. *Proclus Arabus: zwanzig Abschnitte aus der Institutio Theologica in arabischer Übersetzung*, Orient-Institut der Deutsches Morgenlaendischen Gesellschaft, 1973.
- Farmer, Henry George. A History of Arabian Music to the XIIIth Century. Luzac and Co., 1929.
- The Arabian Influence on Musical Theory. Reeves, 1925.
- _____The Arabic Musical Manuscripts in the Bodleian Library: A Descriptive Catalogue With Illustrations of Musical Instruments. Reeves, 1925.
- The Organ of the Ancients from Eastern Sources. Reeves, 1931.
- Feld, Steven. "Acoustemology." In *Keywords in Sound*, edited by David Novak and Matt Sakakeeny. Duke University Press, 2015.

- "Waterfalls of Song: An Acoustemology of Place Resounding in Bosavi, Papua New Guinea." In *Senses of Place*, edited by Steven Feld and Keith Basso. SAR Press, 1996.
- _____ Sound and Sentiment: Birds, Weeping, Poetics, and Song in Kaluli Expression. Duke University Press, 1982.
- Fierro, Maribel. "Bāṭinism in Al-Andalus: Maslama b. Qāsim al-Qurṭubī (d. 353/964), Author of the 'Rutbat al-Ḥakīm' and the 'Ghāyat al-Ḥakīm (Picatrix)." *Studia Islamica*, no. 84 (1996): 87-112.
- Friedman, Yaron. "Ibn Taymiyya's Fatāwā against the Nuṣayri-Alawi Sect." *Der Islam* 82 (2005): 349–63.
- Gardet, Louis. "Ilm al-Kalām." in *Encyclopedia of Islam 2nd edition*, ed. Bernard Lewis, Victor Louis Ménage, Charles Pellat, and Joseph Schacht (Leiden: E. J. Brill; London: Luzac & Co, 1986) vol. 3, 1141-50.
- Genequand, Charles. "Alexander of Aphrodisias and Arabic Aristotelianism." In *Encyclopedia* of Medieval Philosophy: Philosophy between 500 and 1500, edited by Henrik Lagerlund. Springer, 2011.
- Gibb, Hamilton Alexander Roskeen. *Arabic Literature: an introduction*. Clarendon Press, 1963.
- Gutas, Dimitri. Greek Thought, Arabic Culture: the Graeco-Arabic Translation Movement in Baghdad and Early Abbasid Society. Routledge, 1998.
- Guyard, Stanislas. Fragments relatifs a la doctrine des Ismailis. Paris: Imprimerie Nationale, 1874.
- Halm, Heinz. Kosmologie und Heilslehre der frühen Ismā ʿīlīya: eine Studie zur islamischen Gnosis. Wiesbaden: Deutsche Morgenländische Gesellschaft, 1978.
- Hamdani, Abbas. "Abū Ḥayyan Al-Tawhīdī and the Brethren of Purity." *International Journal of Middle East Studies* 9, no. 3 (1978): 345–53.
- "An Early Fāṭimid Source on the Time and Authorship of the 'Rasā'il Iḥwān al-Ṣafā'."

 Arabica 26, no. 1 (1979): 62–75.
- Hasse, Dag Nikolaus. "Plato arabico-latinus: Philosophy–Wisdom Literature–Occult Sciences." In *The Platonic Tradition in the Middle Ages: A Doxographic Approach*. Edited by Stephen Gersh and Maarten Hoenen, (Berlin–New York, 2002): 31–66.
- Helmig, Christoph. Forms and Concepts: Concept Formation in the Platonic Tradition. De Gruyter, 2012.
- Hicks, Andrew J. Composing the World: Harmony in the Medieval Platonic Cosmos. Oxford University Press, 2017.
- "Music and the Pythagorean Tradition from Late Antiquity to the Early Middle Ages." In *Brill's Companion to the Reception of Pythagoras and Pythagoreanism in the Middle*

- Ages and the Renaissance, edited by Irene Caiazzo, Constantinos Macris, and Aurélien Robert. Brill, 2021.
- Holtzman, Livnat. *Anthropomorphism in Islam: The Challenge of Traditionalism* (700-1350). Edinburgh University Press, 2018.
- Hoover, Jon. "God Spatially Above and Spatially Extended: The Rationality of Ibn Taymiyya's Refutation of Faḥr al-Dīn al-Rāzī's As'ārī Incorporealism." *Arabica* 69 (6): 626-74.
- Irwin, Joyce, ed. Sacred Sound: Music in Religious Thought and Practice. Oxford: Oxford University Press, 1984.
- Iwanow, Wladimir. Studies in Early Persian Ismailism. Brill, 1948.
- Izdebska, Anna. "Man, God and the Apotheosis of Man in Greek and Arabic Commentaries to the Pythagorean Golden Verses." *The International Journal of the Platonic Tradition* 10, 1 (2016): 40-64.
- "Popular Pythagoreanism in the Arabic Tradition: Between Biography and Gnomology." In *Brill's Companion to the Reception of Pythagoras and Pythagoreanism in the Middle Ages and the Renaissance*, edited by Irene Caiazzo, Constantinos Macris, and Aurélien Robert. Brill, 2021.
- "The Attitudes of Medieval Arabic Intellectuals towards Pythagorean Philosophy: Different Approaches and Ways of Influence." In *Cultures in Motion: Studies in the Medieval and Early Modern Periods*, edited by Daniel T. Rodgers, Bhavani Raman, and Helmut Reimitz. Princeton University Press, 2014.
- "The Pythagorean Metaphysics of Numbers in the Works of the Ikhwān al-Ṣafā ' and al-Shahrastāni." In *Pythagorean Knowledge from the Ancient to the Modern World: Askesis, Religion, Science*, edited by Almut-Barbara Renger and Alessandro Stavru. Harrassowitz Verlag, 2016.
- McCarthy, Richard. "Al-Kindī's Treatise on the Intellect: Text and Tentative Translation." *Islamic Studies* 3, no. 2 (1964): 119–49.
- Janos, Damien. "Qur'ānic Cosmography in Its Historical Perspective: Some Notes on the Formation of a Religious Worldview." *Religion* 42.2 (2012): 215–31.
- Jonas, Hans. "The Nobility of Sight. A Study in the Phenomenology of the Senses." *Philosophy and Phenomenological Research* 14 (1954): 507–519.
- Jouili, Jeanette, and Annelies Moors. "Introduction: Islamic Sounds and the Politics of Listening." *Anthropological Quarterly* 87, no. 4 (2014): 977–88.
- Jousse, Marcel. "Études de Psychologie Linguistique: Le Style Oral Rythmique et Mnémotechnique Chez Les Verbo-Moteurs." *Archives de Philosophie* 2, no. 4 (1925): 1–240.

- Kacimi, Mourad. "Los *Ijwân al-safâ*" contra el estado abasí. Acción política en relación con los diversos estados de su época." *Al-Qantara: Revista de Estudios Árabes*, 40(2) (2019): 355–384.
- Kania, Andrew. "Philosophy of Music," *Stanford Encyclopedia of Philosophy*. Published in 2007, substantially revised in 2003. https://plato.stanford.edu/entries/music/ Accessed 5 May 2025.
- Kapchan, Deborah. "Learning to Listen: The Sound of Sufism in France." *The World of Music* 51, no. 2 (2009): 65–89.
- "The Aesthetics of the Invisible: Sacred Music in Secular (French) Places." *TDR* 57-3 (2013): 132–47.
- Kars, Aydogan. *Unsaying God: Negative Theology in Medieval Islam*. Oxford University Press, 2019.
- Klein-Franke, Felix. "Zur überlieferung der platonischen Schriften im Islam." *Israel Oriental Studies* 3 (1973): 120–139.
- Laack, Isabel. "Sound, Music and Religion: A Preliminary Cartography of a Transdisciplinary Research Field." *Method & Theory in the Study of Religion* 27, no. 3 (2015): 220-46.
- Lane, Edward William. An Account of the Manners and Customs of Modern Egyptians. London, 1836.
- Lange, Christian. "The Ikhwān al-Ṣafā' (Fourth/Tenth Century) on Sense and Sensibilia". In *Islamic Sensory History*, edited by Christian Lange and Adam Bursi. Brill, 2024.
- "Al-Jildakī (fl. 8th/14th c.) on the alchemy of the senses." *Islamic Sensory History*, vol. 2: 600-1500, edited by Christian Lange and Adam Bursi. Brill, 2024.
- _____ "The Ikhwān al-Ṣafā' (Fourth/Tenth Century) on Sense and Sensibilia," In *Islamic Sensory History*. Brill, 2024.
- "Introduction: The sensory history of the Islamic world." *The Senses and Society* 17:1 (2022): 1-7.
- and Adam Bursi, eds. *Islamic Sensory History*. Brill, 2024.
- Loureiro, João Diogo R. P. G. "Listening to the Voice of Reason: Sound-Related Metaphors for the Philosophical Experience in Aristotle and Augustine." In *Sonus in metaphora: La rhétorique sonore et musicale dans l'Antiquité*, edited by Francesco Bué and Angelo Vannini. Persée, 2021.
- Lucas, Ann E. "Caught between Heaven and Hell: The Morality of Music and Cosmologies of the Past in Persian Writings on Listening, c. 1040-c. 1800." *Asian Music* 43, no. 1 (2012): 91–130.
- Marquet, Yves. "Ihwān Al-Ṣafā', Ismaïliens et Qarmaṭes." Arabica 24, no. 3 (1977): 233–57.

- _____"Ikhwān al-Ṣafā'," in *The Encyclopedia of Islam* (2nd ed.), vol. 3 (1971), 1071–1076.
- "Les Cycles de La Souveraineté Selon Les Épîtres Des Iḫwān Al-Ṣafā'," *Studia Islamica*, no. 36 (1972): 47-69.
- _____"Les Epîtres Des Ikhwân As-Safâ', Œuvre Ismaïlienne." *Studia Islamica*, no. 61 (1985): 57–79.
- Melchert, Christopher. "God Created Adam in His Image'." *Journal of Qur'anic Studies* 13, no. 1 (2011): 113–24.
- Moseley, Geoffrey. "Plato Arabus: On the Arabic Transmission of Plato's Dialogues. Texts and Studies." PhD dissertation at Yale University, 2017.
- Nasr, Seyyed Hossein. An Introduction to Islamic Cosmological Doctrines: Conceptions of Nature and Methods Used for Its Study by the Ikhwan al-Safa, al-Biruni, and Ibn Sina. Harvard University Press, 1964.
- Natij, Salah. "La Nuit Inaugurale de Kitāb Al-Imtā' Wa-l-Mu'ānasa d'Abū Ḥayyān al-Tawḥīdī: Une Leçon Magistrale d'adab." *Arabica* 55, no. 2 (2008): 227-75.
- Netton, Ian Richard. *Allāh Transcendent: Studies in the Structure and Semiotics of Islamic Philosophy, Theology, and Philosophy.* Routledge, 1994.
- _____Muslim Neoplatonists: an introduction to the thought of the Brethren of Purity (Ikhwān al-Ṣafā'). Routledge, 2002.
- Neubauer, Eckhard, and Henry Farmer. *Studies in Oriental Music*, in 2 vol. Institute for the History of Arabic-Islamic Science at the Johann Wolfgang Goethe University, 1977.
- Nielson, Lisa. *Music and Musicians in the Medieval Islamicate World: a Social History*. London: I. B. Tauris, 2021.
- Noor, Umar Muhammad, and Usman Abur Hamdi. "Resisting Anthropomorphism: Evaluation of Abū Sulaymān al-Khaṭṭābī's (d. 388/998) Approach to Ṣifāt Traditions." *Journal of Religious & Theological Information* 21 (1-2): 12-33.
- Ong, Walter J. Orality and Literacy: the Technologizing of the World. Routledge, 2002.
- Osborne, Lauren E. "Sound-History of the Quran." *MIDÉO* [Online], 37 (2022).
- Perkuhn, Eva Ruth. Die Theorien zum arabischen Einfluss auf die europäische Musik des Mittelalters. Waldorf-Hessen, 1976.
- Pingree, David. "Between the Ghāya and Picatrix. I: The Spanish Version." *Journal of the Warburg and Courtauld Institutes* 44 (1981): 27–56.
- Reemes, Paulina. Neoplatonism. Routledge, 2008.
- Robichaud, Denis. "Ficino on Force, Magic, and Prayers: Neoplatonic and Hermetic Influences in Ficino's *Three Books on Life*." *Renaissance Quarterly* 70, no. 1 (2017): 44-87.

- Rosenthal, Franz. "From Arabic Books and Manuscripts VII: Some Graeco-Arabica in Istanbul." *Journal of the American Oriental Society* 81, no. 1 (1961): 7-12.
- "On the Knowledge of Plato's Philosophy in the Islamic World." *Islamic Culture* 14 (1940): 387–422.
- Rowson, Everett K. "The Philosopher as Litterateur: Al-Tawḥīdī and his Predecessors." *Zeitschrift für Geschichte der arabisch-islamischen Wissenschaften* 6 (1990): 50–92.
- Saif, Liana. "Ikhwān al-Ṣafā"s religious reform and magic: beyond the Isma'ili hypothesis." *Journal of Islamic Studies*, 30(1) (2019): 34–68.
- Santacruz, Francisco Ramirez. "Sounds of Inferno." *Epos Revista de filologia* 27 (2011): 235-48.
- Savage-Smith, Elisabeth, Simon Swain, and Geert Jan van Gelder (eds.) *A Literary History of Medicine: The* 'Uyūn al-anbā' fī ṭabaqāt al-aṭibbā' *of Ibn Abī Uṣaybi'a*. Brill, 2019.
- Sawa, George Dimitri. *Music Performance Practice in the Early 'Abbāsid Era*. Toronto: Pontifical Institute of Mediaeval Studies, 1989.
- _____ Musical and Socio-Cultural Anecdotes from Kitāb al-Aghānī al-Kabīr: Annotated Translations and Commentaries. (Islamic History and Civilisation) XV. Leiden: Brill, 2019.
- Schafer, Richard Murray. The Soundscape: the tuning of the world. Knopf, 1977.
- Schipper, Edith Watson. "Mimesis in the Arts in Plato's Laws." *The Journal of Aesthetics and Art Criticism* 22, no. 2 (1963): 199–202.
- Schrieke, Bertram. "Die Himmelsreise Muhammeds." Der Islam 6 (1916): 1-30.
- Sears, Elizabeth. "The Iconography of Auditory Perception in the Early Middle Ages: On Psalm Illustration and Psalm Exegesis." In *The Second Sense: Studies in Hearing and Musical Judgement from Antiquity to the Seventeenth Century*, edited by Charles Burnett, Michael Fend, and Penelope Gouk. Warburg Institute, 1991.
- Sells, Michael. "Ascension." Encyclopaedia of the Qur'ān, I: 176-81.
- "Sound and Meaning in 'Sūrat al-Qāri'a." *Arabica* 40, no. 3 (1993): 403–30.
- "Sound, Spirit, and Gender in Sūrat Al-Qadr." *Journal of the American Oriental Society* 111, no. 2 (1991): 239–59.
- Shiloah, Amnon. "The Arabic Concept of Mode." *Journal of the American Musicological Society* 34, no. 1 (1981): 19–42.
- "Music and Religion in Islam." *Acta Musicologica* 69, no. 2 (1997): 143–55.

- L'Epitre sur la musique des Ikhwān al-Ṣafā': traduction annotée. P. Geuther, 1964.

 The Theory of Music in Arabic Writings (c. 900-1900): descriptive catalogue of manuscripts in libraries of Europe and the U.S.A. G. Henle Verlag, 1979.
- Sourdel, Dominique. "Bayt al-Ḥikma." In *Encyclopaedia of Islam New Edition Online (EI-2 English)*, edited by Peri Bearman. Brill, 2012.
- Stern, Samuel Miklos. "The Authorship of the Epistles of the Ikhwān al-Ṣafā'." Islamic Culture 20 (1946): 367-72.
- Suleiman, Farid. Ibn Taymiyya and the Attributes of God. Brill, 2024.
- Sullivan, Lawrence, ed. *Enchanting Powers: Music in the World's Religions*. Cambridge MA: Harvard University Press, 1997.
- Tabataba'i, Mohammad Ali, Mehr Dad, and Saida Mirsadri. "The Qur'ānic Cosmology, as an Identity in Itself." *Arabica* 63, no. 3/4 (2016): 201-234.
- Tesei, Tommaso. "Some Cosmological Notions from Late Antiquity in Q 18:60–65: The Quran in Light of Its Cultural Context." *Journal of the American Oriental Society* 135, no. 1 (2015): 19–32.
- Tibawi, Abdul Latif. "Some Educational Terms in Rasā'il Ikhwān al-Ṣafā'," *Islamic Quarterly* 5:1-2 (1959): 30-46.
- Tritton, Arthur Stanley. "The Speech of God," Studia Islamica, no. 36 (1972): 5-22.
- van Bladel, Kevin. "Heavenly Cords and Prophetic Authority in the Quran and Its Late Antique Context." *Bulletin of the School of Oriental and African Studies, University of London* 70, no. 2 (2007): 223–46.
- "The Translation Movement in Abbasid Baghdad." In *Baghdad: Eye's Delight.*Exhibition at the Museum of Islamic Art. Doha: Qatar Museums, 2022.
- and Dimitri Gutas. "Bayt al-hikma." In Encyclopaedia of Islam Three. Brill, 2009.
- Wakelnig, Elvira. "Proclus, Arabic." In *Encyclopedia of Medieval Philosophy: Philosophy between 500 and 1500*, edited by Henrik Lagerlund. Springer, 2011.
- Walker, Paul E. "Platonisms in Islamic Philosophy." Studia Islamica, no. 79 (1994): 5–25.
- Widengren, Geo. Muhammad, the Apostle of God, and his Ascension. Lundequistska Bokhandeln, 1955.
- Williams, Wesley. "Aspects of the Creed of Imām Aḥmad ibn Ḥanbal: A Study of Anthropomorphism in Early Islamic Discourse." *International Journal of Middle East Studies* 34 (3): 441-63.

Wolfson, Harry Austryn. "The Internal Senses in Latin, Arabic, and Hebrew Philosophic Texts." *The Harvard Theological Review* 28, no. 2 (1935): 69–133.