## Epistles of the Brethren of Purity. On the Natural Sciences: An Arabic Critical Edition and English Translation of EPISTLES 15-21

Carmela Baffioni, ed. and trans. Oxford: Oxford University Press in association with the Institute of Ismaili Studies, 2013. 969 pages.

One does not need to repeat the off-stated observation that editing and translating the epistles of the Brethren of Purity (Ikhwan al-Safa') will greatly enhance our understanding of the pre-Avicennan period's intellectual history of the philosophical sciences. Carmela Baffioni, senior research fellow at the Institute of Ismaili Studies, which sponsors this project, is a leading specialist on the Brethren, having spent an illustrious career at Naples – twenty-five items in the bibliography constitute her major contributions, alongside the editions and translations she has contributed to this series. She has already edited and translated the epistles on logic in an earlier volume of this series – those epistles come immediately before the seven that are published here (out of the seventeen epistles that comprise the second section on the natural sciences) and are the culmination of the first section on the mathematical sciences. The volume immediately after on epistle 22 on animals has been published many times and is arguably one of the most famous of the Epistles: The Case of the Animals versus Man before the King of the Jinns (published in this series in the translation of Lenn Goodman and Richard MacGregor).

With this highly useful and impressive volume, she has made a major contribution. This large volume (around 1,000 pages of English and Arabic) comprises a foreword by Nader el-Bizri (the project's general editor); an in-

troduction that does an excellent job of contextualizing the work; a technical introduction that discusses the manuscripts, especially that of the oldest existing one: Atif Efendi 1681; followed by the translation of the five epistles along with three appendices that include material added from some manuscripts on epistles 15, 20, and 16. The Arabic editions come at the end, even though it would clearly be better to have them face the English translations. Alongside some of the early *kalām* works, these epistles constitute some of the earliest Arabic investigations into natural philosophy taken up not just themes in Aristotelianism, but also elements of their more Ismaili angelology and cosmology.

The introduction, as if to compensate for the absence of any discussion of Greek antecedents in her volume on logic, engages the Hellenic background extensively: the influence of Aristotle's *De Caelo*, doctrines on matter and form, the four causes, the spherical nature of Earth, motion, the Platonic notion of the human as microcosm as well as philosophy as the imitation of God (*theosis*), and Hippocrates. She also introduces the elements that are taken from scripture. The real question is, of course, what constitutes the Brethren's own conceptualization of natural philosophy, starting with the important Ismaili elements in the text. She stresses creationism, the idea that God created the cosmos in space and time, eschatology (which tends toward the spiritual), a belief in cosmic sympathy as an expression for the divine plan, and the importance of astrology.

Given the privileging of the spiritual over the material, the study of natural phenomena is supposed to reveal the spiritual realities that lie beyond them. Baffioni notes that elements of the Brethren's cosmology seem to prefigure the later Ismaili philosopher Hamid al-Din Kirmani (d. 1021), and that their notion of humanity's evolution anticipates the idea of substantial motion and transformation (harakah jawharīvah) in the thought of Safavid thinker Mulla Sadra Shirazi (d. 1635). The latter would not be surprising, not least because Carlos Steel's study of the late Neoplatonism of Simplicius, Syrianus, and Damascius, among others, presents a picture of a soul in transformation that seems to be similar to Mulla Sadra some centuries before the Brethren. There are strong parallels in the forms of Pythagorean Neoplatonism found in the Brethren's work and those under the Safavids, including Mulla Sadra. This discursive introduction is followed by the technical introduction, which presents the codicological details of the manuscripts used, especially the base Atif Efendi. In addition, it outlines Baffioni's editing method with an extensive list of corrected readings in order of the epistles. She also notes orthographic mistakes, ellipses, and particularities. The critical apparatus on readings and variants in the footnotes to the Arabic edition supplement and clarify this method.

The translations are clear and supplemented with scholarly footnotes that identify passages in Aristotle, for example, from which the Brethren are drawing as well as commenting further on the material in the text. Epistle 15, on matter and form (al-havūla wa al-sūra), comprises fourteen chapters on issues of hylomorphism and the constituents of natural bodies. It also discusses the nature of place, motion, and time and ends with a section that explains the subject matter of the epistles that follow (since this is the first part of the section on the natural sciences). One of the epistle's overarching themes is the idea of alchemy as a process of transforming bodies, both natural and celestial, and especially souls, as well as the notion of spiritual and cosmological hierarchy that places prophets and successors above the generality of those in the world of generation and corruption, as more perfect manifestations of the universal soul. Epistle 16 moves onto their De Caelo and includes the Brethren's argument for creationism against the eternity of the cosmos. Comprising twenty-nine chapters, the volume's longest epistle, it introduces the theme of the homology of the human and the cosmos - the latter as a "macroanthropos" and the former as a microcosmos. The celestial bodies are spheres in rotation, types of motion are discussed as well as heliocentrism.

Two chapters are of particular theological significance: chapter 19 on the analogy of the circumambulation  $(taw\bar{a}f)$  of the Ka'bah during pilgrimage that is applied to the rotation of the spheres, and the (symbolically important) final chapter on resurrection of souls at death that are linked to the higher celestial souls. Epistle 17, on generation and corruption (al-kawn wa al-fasād), features of this world and includes fourteen short chapters. The final chapter here again is theologically poignant, as it deals with the nature of the human body as one of those things that undergo generation and corruption: They repeat their refrain to "arise from the slumber of ignorance" and recognize one's innate spiritual nature that transcends the body. Epistle 18, comprising seventeen chapters, is on meteorology and includes some of their presentation of astrology, broadly following Books I-III of Aristotle's Meteorology. It ends with a chapter that recalls the Our'anic notion of spheres and celestial bodies as signs on which to ponder. Beginning with an affirmation of the Our'anic account of creation ex nihilo, they move onto discussing the horizontal hierarchy in the world.

A key chapter 12 returns to the theme of eschatology that runs throughout and the spiritual nature of those perfected in the afterlife. Epistle 19, on minerals, includes thirteen chapters and follows Book IV of the *Meteorology*. Epistle 20 moves onto a discussion on nature, but not in the Aristotelian sense of  $tab\bar{t}$  'a/ph $\bar{u}sis$ , and is relatively short: thirteen chapters. In fact, it discusses angelology and prophetology. Much of this epistle is taken up with affirming astrological principles of how the higher bodies and souls affect the lower ones and how the angels associated with the spheres have a spiritual power. A central chapter 7 returns to the motif of the symbolism of the pilgrimage and the circumambulation of the Ka'bah. Epistle 21 discusses plants in three chapters, on which no work of Aristotle's has survived. It includes descriptions and uses of various plants, among them palms, figs and almonds. The appendices deal with additional material: appendix A deals with some issues on motion and place that supplements Epistle 15 and includes the Arabic edition and translation with a brief commentary; appendix B supplements Epistle 20 by discussing the nature of physicians and how they are similar to and different from prophets; and, finally, appendix C, supplementing Epistle 16, demonstrates the Brethren's Ismaili cosmology.

Baffioni has produced a serious, academic and worthwhile contribution that is a pleasure to read and use and testifies to the value of the series. Once read alongside the early translations of Aristotle, Galen, and other Hellenic authors, as well as the production of the Kindi circle and the Baghdad Peripatetics, it will allow us to understand the different trajectories of thinking on the natural sciences that were inherited by the classical period (starting with Ibn Sina) and moving onto the medieval period. It demonstrates to us that one finds a holistic approach to the sciences from an early period. Thus we should not be surprised when we encounter the occult in the medieval period as a science, for the juxtaposition of astrology, alchemy, and magic with physics, logic, and mathematics has a long pedigree. This volume is a major achievement worthy of the highest praise.

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