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AN INTRODUCTION TO ISLAMIC COSMOLOGICAL DOCTRINES, Rev. Ed. By Seyyed Hossein Nasr. Albany: State University of New York Press, 1993. Pbk., xiii-xxv + 322 pp.

Reviewed by Mohammed Rustom

The first work in Islamic studies to deal with the question of classical Islamic cosmology was published in 1964 under the title 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. It would later be revised and reprinted in both 1978 and 1993. The book was based Seyyed Hossein Nasr's doctoral dissertation submitted to the department of the History of Science and Philosophy at Harvard University in 1958. The significance of this work cannot be overemphasized. It is a foundational text in Islamic philosophy, science, and even mysticism. As Nasr makes abundantly clear both here and in some of his other books, premodern cosmologies cannot be looked at as simply outdated mythical systems. Today the term "cosmology", that is, the study of the cosmos (from the Greek word meaning order), has a slightly different connotation. People commonly mistake this word to mean the science or study of the universe, while anthropology is understood to be the science or study of man. That cosmology and anthropology are not viewed as intimately related to one another is perhaps because most peoples' ideas today are coloured by the norms of empirical science and the positivistic scientistic reductions of the significance of the cosmos itself and hence man's role within it. But in classical civilizations, where man's place in the universe was intimately intertwined with his understanding of his own place in the cosmos, there existed the profoundest connection between cosmology and anthropology. For the premoderns, their science of the universe *a fortiori* assumed a science of the self.

In the contemporary world, at a time when a good portion of the intelligentsia have become disillusioned with scientific theories of the universe (thanks in part to postmodernism), one would expect that the cosmologies of the classical past would attract more scholarly attention. With respect to Islamic studies in particular, however, the amount of academic literature devoted to the way in which Muslims in classical and medieval Islam envisioned the cosmos is negligible. There are, however, some noteworthy exceptions. An Introduction to Islamic Cosmological Doctrines is one of them. What Nasr set out to do in this work was to show how it is that the Muslim understanding of the interconnectedness of all things- a logical outcome of the Islamic confession of Unity- comes to life in the cosmological doctrines of three foundational scientists and cosmologists in classical Islam: the Ikhwan al- Safa', al-Biruni, and Ibn Sina.

As Nasr states, his goal was to lay out the basic cosmological ideas as put forth by these three thinkers, for it is these very ideas that would influence, in some fashion, all the later cosmological sciences in Islam. Even with a thinker like al-Biruni, who is not particularly inclined towards mysticism and cannot be said to have had as integrated a worldview as the Ikhwan al- Safa' (witness his disdain for alchemy, which writers like

the Ikhwan were able to integrate into their vision of reality), his entire vision of the natural order was nonetheless based on the understanding that there was a Divine entelechy to the patterns he saw around him. The cosmos could not but prove God's unity. What Nasr brings out particularly well in this book is how it is that although these early Muslim scientists and astronomers did not integrate the same elements into their worldviews, and although they differed a great deal in their intellectual perspectives, their entire approach to knowledge and, ultimately, themselves, was based on a unified vision of reality. It is for this reason that someone like al-Biruni could write at once on the topology, climate, language, and religious practices of a totally foreign culture (i.e. India), while also remaining a committed Muslim. His holistic vision of reality allowed him to seek knowledge wherever it was to be found. Biruni's approach to the world was pragmatic and empirical. But the pragmatic and empirical spirit that characterizes his approach to the natural order is to be clearly distinguished from, say, a twenty-first century astronomer's empirical approach to the universe, for the latter often does not see a Principle behind the wonders that lie at the other end of the telescope.

It is often overlooked how significant a role the Ikhwan al-Safa' played in the development of the Islamic cosmological sciences. This book presents ample proof, through analyzing key passages from the Ikhwan's *Rasa'il* (a number of which are translated here for the first time into English), that doctrinal Sufism and Islamic philosophy is largely indebted to their genius. The Ikhwan's writings bespeak a fascination and familiarity with the natural order and its relationship to man. They understood the Universal Soul to be the principle that animates the cosmos. From this perspective, the Universe was seen as a Big Man (*al-insan al-kabir*) or a Big Universe (*al-'alam al-kabir*), as compared to man himself, who was seen as a Little Man (*al-insan al-saghir*) or a Little Universe (*al-'alam al- saghir*). Readers familiar with Islamic thought are immediately reminded of similar references in the works of various Ismaili thinkers, Ibn Arabi and his school, as well as the writings of such figures as Mahmud Shabistari and Mulla Sadra.

The Ibn Sina we encounter in Nasr's book is not only an excellent natural scientist, mineralogist, and philosopher, but a serious gnostic who sought to expound in his more esoteric, symbolic writings (or his 'Visionary Recitals', as Henry Corbin so aptly termed them), the means by which man may escape the cosmic crypt within which his soul is imprisoned. Nasr, who shares Corbin's perspective on the esoteric strain in Ibn Sina's work, devotes a good deal of time to explicating Ibn Sina's oriental philosophy. Ibn Sina's symbolic tales internalize the verities that he discovered empirically through his studies of nature and the cosmos. In these tales he maps out a type of inner cosmology that corresponds directly to the outward cosmology with which he was so intimately familiar. His symbolic treatises would become an inversion of the process of knowing that can be obtained through empirical observation and the study of the natural order. Ibn Sina's case represents, perhaps more so than the Ikhwan al-Safa' and certainly more than al-Biruni, one of the earliest examples of a sacred scientist; that is, someone who plays an active role in gaining knowledge of his immediate surroundings only to transcend these surroundings for a world beyond the natural order. The inner cosmic voyage, or, in other words, the journey of the mystic within himself, within his own universe, and towards the Goal, is highlighted very well by Nasr in this section of the book. Ibn Sina's symbolic or visionary treatises would influence such thinkers as diverse as the Ismaili Hamid al-Din al-Kirmani, the Ghazali brothers, Ibn Tufayl and the founder of the school of Illumination, Shihab al-Din Suhrawardi.

It should be noted that at the root of the classical Islamic vision of this unified cosmos as elucidated in *An Introduction to Islamic Cosmological Doctrines* was the Ptolemaic conception of universe, which posited a geocentric notion of the universe as compared to the universally accepted and empirically 'proven' heliocentric theory. But as writers such as Titus Burckhardt, Henry Corbin, René Guénon, and Frithjof Schuon have argued, ancient cosmologies are not outdated simply because our modern empirical methods have verified otherwise. They are still very much relevant, and in fact necessary if man is to transcend himself. That the sun is at the center of our universe is, after all, pretty much a useless fact to our every-day experience of reality. We experience the world as if we are at the center of the universe, not as if we are somehow tucked away in the periphery of a galaxy without a *telos*. A truly sacred science in which man is able to transcend himself with the help of nature and his natural surroundings requires that his vision of the universe entail his being at its center. The Ptolemaic conception of the universe afforded man such a vision of the cosmos.

The book is replete with factual and empirical scientific discussions. A good number of pages read like a science textbook. We learn of such things as the Ikhwan al-Safa's meteorological observations, Biruni's discussions of planetary motion, and Ibn Sina's theory of the bodily humors. But these are not just naked facts presented to the reader, as is so often the case in textbooks of science. Rather, even the seemingly most mundane scientific fact is unmistakably related to the big picture.

In the closing lines of his study, Nasr ends with the same passage from Ibn 'Arabi's *al-Futuhat al-Makkiyyah* with which he began: "the world consists of the unity of the unified, whereas the Divine Independence resides in the unity of the Unique." That this very passage marks both the beginning and the end of Nasr's inquiry concerning the cosmological sciences in Islam- a science that presents a fully integrated vision of the universe that allows for man's becoming in the truest sense of the word- is fitting indeed. The point of our Origin is also the point of our Return. After the descent from our Origin into the cosmos we are reminded, by the cosmos itself, of our true home, and must therefore return to our Origin once again.