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MAFĀTIḤ AL-ʿOLUM

MAFĀTIḤ AL-ʿOLUM (Keys to sciences), a book in which key terms used by various classes of scholars, artisans, state officials, etc. are explained. It was composed around 366/976 by Abu ʿAbd-Allāh Moḥammad b. Aḥmad b. Yusof Kāteb Ḵʷārazmi, who died about 380/990-91 (Esmāʿil Pasha, II, col. 1756) or in 387/998 (Ḥāji Ḵalifa, II, p. 51).

This book is an example of a rare genre in Arabic literature, despite the similarities that it shares with many others. Although it resembles the works of Ḵʷārazmi's contemporaries such as Abu Naṣr Fārābi's (d. 339/950) *Eḥṣāʾ al-ʿolum* and, to some extent, his *Ketāb al-ḥoruf*, Ebn Sinā's (d. 428/1037) *Aqsām al-ʿolum al-ʿaqliya,* and Ebn Ḥazm's (d. 456/1064) *Marāteb al-ʿolum*, and the slightly later and similarly titled works like Sakkāki's (d. 626/1229) *Meftāḥ al-ʿolum*, or Naṣir-al-Din Ṭusi's (d. 672/1274) *Aqsām al-ḥekma*, it is much different from those works. Not only does the work list types and interdependencies of the various epistemological categories of the intellectual disciplines known in the Islamic civilization around the 10th and 11th centuries, as the others do, but the author also goes much beyond that in analyzing the essential linguistic, epistemological, and conceptual features of those disciplines. He focuses not only on the jargon of the disciplines concerned, defining the fundamental concepts and demonstrating their developments and subdivisions, but goes further to include their utility for his colleagues, the secretaries of the administration (*kottāb*), and to cite as well the unusual expressions that were frequently used in those disciplines.

The utilitarian aspect of the book must have been immediately obvious to its

contemporary readers, to whom it was clearly addressed. It demonstrates the skill with which a government secretary must function and provides him with the mastery of the linguistic range of the disciplines that a well-educated secretary would come across in his administrative functions. It aims to prepare the secretary to perform his craft with impeccable efficiency, without any need for advisors, subsidiary assistants, or even consultants to help him carry out his tasks. As Ḵʷārazmi would put it: whoever mastered his book, he would become so fluent in the specialized languages of the various disciplines that he would move through them with extreme ease (*haḏḏahā haḏḏan*; ed. van Vloten, p. 5; tr., pp. 5-6).

The book itself, as stated in its introductory chapter (tr., pp. 3-4), was written to gain favor with the vizier Abu'l-Ḥasan ʿObayd-Allāh b. Aḥmad ʿOtbi, about whom not much is known, except that he served at the court of the Samanid Amir Nuḥ II b. Manṣur (r. 976-97), the same Samanid that patronized the likes of Ebn Sinā and Abu Rayḥān Biruni (d. 440/1048).

The period during which this book was composed had a special significance in the history of Arabic literature. At the time, the Arabic language that was used by the class of government secretaries had matured enough to become a subject of study by itself. The mastery of that language and the rush to achieve it created an environment of severe competition for government jobs, at a time when Arabic had not only become the standard government language, but had also already become the lingua franca of the intellectual life of the empire. People like Badiʿ-al-Zamān Hamadāni (d. 398/1008), the author of *al-Maqāmāt*, who was a slightly younger contemporary of Ḵʷārazmi, and Abu Moḥammad Ḥariri (d. 516/1122), who followed suit with his own *Maqāmāt* in the following century, are only two examples of people who were too eager to demonstrate their mastery of the Arabic language. Such people were of course hoping thereby to qualify for the most lucrative of government jobs, namely, the job of a secretary at the department of correspondence (*divān al-rasāʾel* or *divān al-enšāʾ*), where such talents were highly appreciated. This is also the age of such famous belletrists as Abu Ḥayyān Tawḥidi (d. 414/1023) and the encyclopedists known collectively as the Brethren of Purity (Eḵwān al-Ṣafāʾ), who were supposed to have flourished then or slightly earlier. This was also the period of the famous lexicographers, such as Abu Manṣur Moḥammad Azhari (d. 370/980), Abu Naṣr Esmāʿil Jawhari (d. 393/1002), and Abu Ebrāhim Esḥāq Fārābi (d. 350/961) the lexicographer, to be distinguished from the philosopher. It was also the age that produced shortly afterwards the very

original, new kind of lexicon—for instance, *Asās al-balāḡa* by Maḥmud Zamaḵšarī (d. 537/1143)—in which one did not only have the real semantic range of terms, but included, perhaps for the first time, figurative meanings as well. Those literary giants were also competing with contemporaries who included grammarians, belletrists, philosophers, jurists, theologians, and many others. In short, Ḵᵛārazmi's period was in many ways one of a very high literary culture that had already spread throughout the main lands of the Islamic empire. With the Samanids (ca. 279-389/892-999) and the Ghaznavids (ca. 366-582/976-1186) in the east and the Buyids (ca. 320-454/932-1062) in the west, all political potentates were competing for talented individuals to populate their administrative offices, and for superior intellects and philosophers to entertain and advise at their court gatherings. Ḵᵛārazmi's *Mafātiḥ al-ʿolum* was intended to become an excellent manual for the preparation of such job seekers.

Furthermore, Ḵᵛārazmi's motivation for composing the *Mafātiḥ* was not restricted to his wish to participate in this high literary culture, but was also partly propelled by his burning desire to distinguish himself as an innovator. The way he perceived it, his innovation rested upon the fact that he produced a work in an area that no one else had delved into before (ed. van Vloten, pp. 2-3). It was the area that went beyond the classificatory and encyclopedic attempts of the sciences that had preceded him. He did not follow, for example, in the footsteps of Fārābi, Ebn al-Nadīm, Ebn Sinā, and Ebn Ḥazm, whether their own visions of the interrelationships of the sciences, or their epistemological relevance to each other. Instead, he decided to go much deeper and take for granted the common knowledge that everyone knew about the various disciplines, and their elementary introductions, and then move further by introducing the reader to the fine points about the use of language in those disciplines, which in their turn had already reached their very sophisticated apex at the time.

From the very beginning, and in the very opening chapter of his book, just after paying tribute and praise to his patron ʿOtbi, Ḵᵛārazmi stops to draw the reader's attention to the intimate relationship between language in general and the disciplines in which the language is used. He starts by giving examples of linguistic expressions, seemingly picked up at random, whose meanings obviously change according to the disciplines in which they were deployed. In this fashion he could demonstrate how even the ordinary linguistic terms, which were circulating in common usage and everyone knew

what they meant, would gain new nuances when their disciplinary prisms were applied. He started with the term *rajʿa*, as his first example, of which he said that for linguists and belletrists (*aṣḥāb al-loḡa*) the term simply meant "return," once and no more; but for the jurists (*foqahāʾ*) *rajʿa* meant the reversal of a divorce decision, provided that the divorce had not yet become final. Here Ḵʷārazmi did not go into the very elaborate juridical details that made a divorce final or reversible (*bāʾen* or *rajʿi*). He apparently assumed his readers knew what a final divorce meant. Instead, he went on to say that according to the speculative theologians (*motakallemun*), and in particular for some of the Shiʿites from among them, the term *rajʿa* meant the return of the Imam after his death or occultation. For administrative officers (*kottāb*), presumably like him, the term *rajʿa* meant the account due to be paid in one installment to the payee. For astrologers/astronomers (*monajjemun*) the term *rajʿa* meant the motion of the wandering planets in the order that was contrary to that of the progression of the zodiacal signs (ed. van Vloten, p. 3; tr., p. 4).

Once he illustrated the fecundity of the term *rajʿa*, as reflected in the various disciplinary mirrors, he followed with two other examples, namely the terms *fakk* and *watad*. Here too, Ḵʷārazmi used the disciplinary prisms to allow the full spectrum of meanings of those two terms to emerge. Once he had made his point and illustrated it with examples, he then concluded that introductory chapter by highlighting the importance of his books for his fellow secretaries: "The people most needy of knowing those technical terms (*moṣṭalaḥāt*) are the refined men of letters (*al-adib al-laṭif*), who have already come to realize that the science of language is only an instrument for studying the higher virtues, and that this science would not be useful by itself unless it was put in the service of acquiring those noble disciplines of which the secretaries (*kottāb*) could not afford to be ignorant." (ed. van Vloten, p. 4; tr., pp. 4-5)

This whole discussion of the variations in meaning of terms when subjected to disciplinary prisms startlingly echoes the discussions widely used in Abu Naṣr Fārābi's writings, particularly in his *Ketāb al-ḥoruf* (Book of letters), when he discussed, for example, the varied meanings of the term *jawhar* (essence) as applied to various disciplinary nuances. (Fārābi, 1990, p. 63) In this Ḵʷārazmi is not only participating in a longstanding tradition whose subject was the study of the very meaning of language, but was also participating in the hot philosophical issues of his time, particularly the issues that touched upon the status of logic versus grammar, which were debated by people like Fārābi and

his predecessors, as had taken place during the famous debate, in the year 320/932, between grammarian Abu Saʿid Sirāfi (d. 368/979) and Abu Bešr Mattā b. Yunos (d. 328/940), commentator on Aristotle (see Margoliouth).

Ḵʷārazmi's intention in his *Mafātiḥ* was not the same as that of his predecessors. He made no attempts, for example, at parsing the differences and subtleties separating logic from grammar, particularly Arabic grammar, although he may have framed his book within that discourse by dividing it into two main sections: one on language and its derivative sciences, and the other on foreign sciences (*ʿolum al-ʿajam*), including such disciplines as logic and philosophy. For himself, he only wanted to achieve a more mundane purpose, that is, giving the reader the necessary tools to decipher for himelf the true intentions of the various disciplines, so that the reader could delve into the specialized discourse of those disciplines. In order to do that, he supplied the reader with the keys (*mafātiḥ*) of these disciplines. After explaining the subject matter of the various disciplines he would draw attention to the key technical terms in each one of them.

To take but one example of his method of highlighting disciplinary technical terms, we note that, when he came to discuss the religious/legal subject of fasting (*ṣawm*), he chose only four terms to cover the subject: *qals*, the heaving of the stomach that almost fills the mouth but does not reach the state of vomit, *eʿtekāf*, the seclusion of one's self in the mosque and abstaining from earning (a living, *al-qoʿud ʿan al-makāseb*), the appearance of first dawn (*fajr*) defined by being thin and vertical light like a fox's tail, and second *fajr*, which is horizontal and usually designated the true dawn (ed. van Vloten, p. 11; tr., pp. 16-17). That is all he said in this chapter on fasting, barely five lines, when regular books on *feqh* would devote tens of pages, if not hundreds, to the same subject.

This kind of highlighting the specialized terms of each discipline definitely varied from one discipline to the next, depending on the nature of the discipline. But at all times, Ḵʷārazmi's discussion remained brief, to the point, limited to the essentials, and only aimed to make the knowledge of those disciplines accessible to the general educated people who were not necessarily specialists. In one little volume, of a few hundred pages, Ḵʷārazmi managed to achieve what took his much later competitor Tahanāwi (fl. 18th cent.) thousands of pages (more than two thousands in one edition) to achieve in his *Kaššāf eṣṭelāḥāt al-fonun* (comp. 1158/1745), which, although was composed for a completely different purpose, still achieved a similar aim with much

greater detail.

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