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BOOK-REVIEW

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Meyssa Ben Saâd, Ordonner la diversité du vivant dans le Kitāb alhayawān d'al-Ğāḥiz (776-868). Zoologie et connaissance du vivant dans les sciences arabes médiévales, preface by Mehrnaz Katouzian-Safadi and Ahmed Aarab (Brussels: Éditions Safran, 2022), 302 pages.

This book is a revision of Meyssa Ben Saâd's doctoral thesis, which she defended at Paris-Diderot University in 2010. She endeavors to reconstruct al-Ğāḥiz's (d. 255 / 868-869) method of organizing the living world in his "Book of Animals" (*Kitāb al-ḥayawān*) from the perspective of a historian of zoology. Her team of scholars, including Mehrnaz Katouzian-Safadi and Ahmed Aarab, both of whom signed the preface (p. 11-13), is especially committed to considering the biological value of al-Ğāhiz's book.¹

Within her introduction about zoology, al-Ğāḥiz, and his "Book of Animals," Ben Saâd presents the general framework of her investigation (p. 17-38). She discards approaches that engage in different forms of anachronism – whether that means inserting modern scientific theories into discussions of the past or critiquing premodern forms of knowledge for their "incorrectness" – and instead promotes a perspective grounded in understanding their views. She expresses regret at the lack of studies on al-Ğāḥiz's work on animals and Arabic medieval zoology in general, which she relates to many reasons, among which are the difficulty of accessing texts that are often challenging to translate and the fact that al-Ğāḥiz's qualities as a *littérateur* and a theologian have tended to overshadow his naturalistic contributions.

The opening section, on wonder and rationality in al-Ğāḥiz's zoology, is divided into three chapters. In the first one, on how his discourse and

¹ To quote but one publication, see Ahmed Aarab and Philippe Lherminier, *Le Livre des animaux d'al-Jâhiz* (Paris, 2015).

methodology as a naturalist are embedded within adab culture (p. 40-58), she recalls that al-Ğāhiz benefited from the information that he found in Arabic lexicographical sources as well as Aristotle's zoological corpus, and yet was critical in how he used them. She argues that literary and scientific approaches harmoniously serve one another and demonstrates this with an excerpt on the food chain (p. 53-54). In the second chapter (p. 59-65), she builds on the work of Maaike van der Lugt and distinguishes between three types of wonderful creatures: animals with marvelous properties, fantastic or supernatural animals whose existence has been reported (such as the hydra), and para-natural monsters (such as two-headed snakes). I must confess that the difference between supernatural and para-natural creatures is not very clear to me based on the examples she gave, since al-Ğāhiz is skeptical about their existence in both cases. Finally, she comes to his conception of the living world and distinguishes a philosophical-theological approach, which includes djinns among animated beings, from a zoological approach, which only takes into account the sensible world (p. 66-70). Although she claims that the criterion for life is growth, I would follow Jeanne Miller in thinking that al-Ğāhiz is instead trying to avoid this contentious claim.² A passage from the "Book of Animals" is even probably at odds with Ben Saâd's position.³ In any case, animals (*hayawān*) arguably share growth with plants while being differentiated from them through sense perception.

The second section (p. 71-148) is an attempt to reconstruct al- $\check{G}a\dot{h}$ iz's grouping of animals, divided into those that walk (p. 77-109), fly (p. 110-126), swim (p. 127-143), and creep (p. 144-145). To do so, she spots elements that signal that al- $\check{G}a\dot{h}$ iz is trying to classify animals, e.g. by saying *mina l*- ("belongs to"), which theoretically leads to distinguishing between the terms that are useful to describe animals without being classes, on the one hand, and categories properly speaking, on the other hand (see p. 144, 146, 169, and 199). The system is then summarized in a concluding diagram (p. 147), which is in keeping with Manfred Ullmann's and Mohammed Hocine Benkheira's descriptions.⁴ As

² Jeanne Miller, "More Than the Sum of Its Parts: Animal Categories and Accretive Logic in Volume One of al-Jāḥiz's *Kitāb al-ḥayawān*," PhD dissertation (New York University, 2013), p. 116.

³ Al-Ğāḥiz, *Kitāb al-ḥayawān*, ed. ^cAbd al-Salām Muḥammad Hārūn (Cairo, 1965-1969), vol. IV, p. 82. Al-Ğāḥiz does not want to speculate on the degree of knowledge in animals, but he claims that the few indications that they provide are enough to differentiate the living (*al-ḥayy*) from the dead (*al-mayyit*) and the inanimate (*al-ǧamād*) from the animal (*al-hayawān*).

she goes on presenting the system, she provides tables featuring depictions or designations of the animals that are included in each category. She rightfully argues that the Baṣran polymath expounds on this general division at the beginning of his work and then constantly questions its classificatory pertinence. She concludes by examining the gradually diminishing importance of unstable categories like "those which swim," due to the difficult assessment of aquatic creatures that are not fish, and "those which creep," due to overlapping with a sub-category of those that walk, namely, the hašarāt, i. e. small land animals.

In the third and last section, she deals with al-Gāhiz's conceptions of systematics (p. 149-193). Because she provides elements in this section that are crucial to understanding her reconstruction of his way of grouping animals, I would strongly advise reading it before the second section. In the first chapter of this section (p. 152-167), she is interested in how al-Ğāhiz conceives of zoological groupings. She deduces that he had two criteria in mind, namely, morphological resemblance and ability to procreate, when determining whether two animals can be said to belong to the same group, although he did not necessarily give a name to the delineated categories. In the second chapter (p. 168-174), she explains the abovementioned distinction between terms that are useful to describe animals without being classes and categories properly speaking. In the final chapter of this section (p. 175-193), she studies the position of the human being within this system and attempts to qualify al-Gahiz's enterprise. In her opinion, he tried to look for forms of kinship in nature, based on hierarchized criteria: first, diet; next, anatomy along with behaviors; and finally, the mode of reproduction.

After the conclusion (p. 195-205), which proposes general reflections on al-Ğāḥiz's book while pleading for the recognition of the contribution of Arabic authors to the history of science, she provides three appendixes. The first one schematizes the systems of classification of animals established by Aristotle, Ibn Qutayba, Ḥamdallāh Mustawfī l-Qazwīnī, Zakariyyā l-Qazwīnī, medieval European authors, John Ray, Linné, and Cuvier (p. 208-212). Then, she reproduces relevant excerpts from al-Ğāḥiz's book together with French translations. The selected passages are about the classification of existents, animated beings, birds, cloven-hoofed animals, hašarāt, the avoidance of water by turtles and frogs, the difference between the human being and other

⁴ Manfred Ullmann, *Die Natur- und Geheimwissenschaften im Islam* (Leiden, 1972), p. 51; Mohammed Hocine Benkheira, Catherine Mayeur-Jaouen, and Jacqueline Sublet, *L'animal en islam* (Paris, 2005), p. 28.

animals, the tricks of a snake at hunting, and the strength of serpents (p. 213-229). Finally, she offers elements for the identification of 151 alphabetically ordered zoonyms, based on dictionaries and other sources (p. 230-249). Although this lexicon is not exhaustive and contains occasional mistakes in transliteration, it will certainly prove useful to many of us.

Ben Saâd's contribution to our knowledge of Arabic zoology will undoubtedly be appreciated. I would, however, like to express a few reservations. First, she refrains from speaking of "classification" as far as al-Ğāhiz is concerned (p. 190) and yet identifies classes de facto. A similar paradox has been recognized in Aristotle's zoological corpus; Pierre Pellegrin convincingly argued that Aristotle avoided settling on a single taxonomy or system of classification that would have an intrinsic theoretical value.⁵ The same could be said of al-Šāḥiz, who constantly revises systems of classification – to such an extent that one may legitimately wonder to what extent he is simply playing with them. The first extant taxonomy in the history of Arabic zoology was arguably Ibn Abī l-Ašcat's (d. shortly after 360/970) system of classification of wild animals according to their temperaments in his "Book of Animals" (*Kitāb al-hayawān*), because his system theoretically allots a position to each creature, and indeed he exhorted his reader to classify newly discovered beings within his system. There was no such thing for al-Ğāhiz.

Second, she could have been more explicit about whether al-Ğāḥiz or some other speaker in his text was identified as the source for each piece of information that she cited, although I acknowledge that it is not always simple to decide. In much of his book, al-Ğāḥiz gives voice to a few debaters who defend their favorite animals in turn. Therefore, when she claims that the superiority of certain animals plays a negligible role in his system (p. 173 and 186), that is disputable, because one of the motivations for establishing the characteristics of animals was precisely to highlight how some animals are superior to others, even though the arguments plausibly cancel each other out in the end. Furthermore, if the superiority of the human being over nonhuman animals is diminished, as she claims (p. 176), then one may wonder why al-Ğāḥiz planned to dedicate a section of great importance to it.⁶

Finally, she calls for questioning the Eurocentrism of the history of

⁵ Pierre Pellegrin, *Aristotle's Classification of Animals. Biology and the Conceptual Unity of the Aristotelian Corpus*, tr. Anthony Preus (Univ. of California Press, 1986).

 $^{^6}$ Al-Ğāḥiz, Kitāb al-ḥayawān, vol. VI, p. 14 (al-qawl fī fadīlat al-insān c alā ǧamī c al-ḥayawān).

science, which I agree is commendable. However, one could certainly go further than that and avoid any reference to later European zoologists. If our theoretical framework is 3rd / 9th-century Islamicate zoography, then it is advisable not to relate it to modern taxonomy at all, but rather to figure out al-Ğāḥiz's contribution without recourse to a conceptual framework that would have been alien to him. The caveats that Ben Saâd put forward about Eurocentrism should be taken seriously, perhaps even more seriously than Ben Saâd takes them.