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Ibn Ṭufayl: Abū Bakr Muḥammad ibn ‘Abd al-Malik ibn Muḥammad ibn Muḥammad ibn Ṭufayl al-Qaysī

Miquel Forcada

Alternate name

Abubacer

Born Guadix, Purchena, or Tíjola (Spain), beginning of the 12th century

Died Marrakech (Morocco), 1185/1186

Ibn Ṭufayl was one of the Spanish philosophers who objected to major parts of the Ptolemaic system. We have little information about Ibn Ṭufayl's formative period and early days. He seems to have worked for local rulers till he became secretary to the governor of Ceuta and Tangier, thus entering the service of the Almohads, the North African dynasty that ruled Muslim Spain (al-Andalus) and North Africa from the middle of the 12th century onward. He then became court physician and counselor to the caliph Abū Ya‘qūb Yūsuf, a sovereign who loved and supported science and thought. In this post, Ibn Ṭufayl seems to have promoted most of the scientific and philosophical enterprises that characterize this period, encouraging his disciples to develop his suggestions. We know that he inspired **Ibn Rushd**'s systematic commentary of **Aristotle** and, perhaps, his writing of a medical manual. As for astronomy, **Biṭrūjī** informs us in his *Kitāb al-Hay‘a* that Ibn Ṭufayl conceived a cosmological system (*hay‘a*) that described planetary motion without having recourse to Ptolemaic eccentrics and epicycles, which violated the Aristotelian principles of uniform and circular motions centered on the Earth. Biṭrūjī goes on to say that Ibn Ṭufayl promised to write a book about his system, but, as far as we know, he never did so. This information is the only evidence of Ibn Ṭufayl's concern with this question, and, in spite of its brevity, is consistent with our knowledge of the “Andalusian revolt against **Ptolemy**.” On the one hand, Ibn Ṭufayl was aware of the works of the philosopher who paved the way for this “revolt,” **Ibn Bājjā**; on the other hand, his closest disciple, Ibn Rushd, devoted much time and effort to studying the problem. Nonetheless, whatever intuitions Ibn Ṭufayl may have had, he must have kept his alternative system to himself because Ibn Rushd does not mention a single idea of Ibn Ṭufayl on the matter, and Biṭrūjī states that his *Kitāb al-Hay‘a*, the only cosmological proposal deriving from this “revolt,” was the result of his own efforts and research.

Ibn Ṭufayl's most important work, the philosophical romance *Risālat Ḥayy ibn Yaqzān*, has several

references to astronomy. As is well known, the book describes the process of self-education by a child Ḥayy, either the son of a princess or born by spontaneous generation, who grows up abandoned on a desert island. By means of his own understanding, he is able to discover all kinds of truth and knowledge: technical, physical, philosophical, and spiritual. The study of the heavens plays an essential role in Ḥayy's inquiries; he is able to ascertain the mechanics of celestial bodies without the help of others. The paragraphs devoted to this question mainly deal with the philosophical sides of cosmology (the souls of celestial bodies, their influence on the sublunary world, *etc.*) to the extent that it is difficult to deduce anything really useful from them about Ibn Ṭufayl's astronomical thought. Nevertheless, a passage in which he mentions that the celestial bodies can move either around their own center or around another center suggests that, in spite of what Biṭrūjī says, the author may have accepted eccentrics at some stage, thus sharing the opinion of Ibn Bāja.

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