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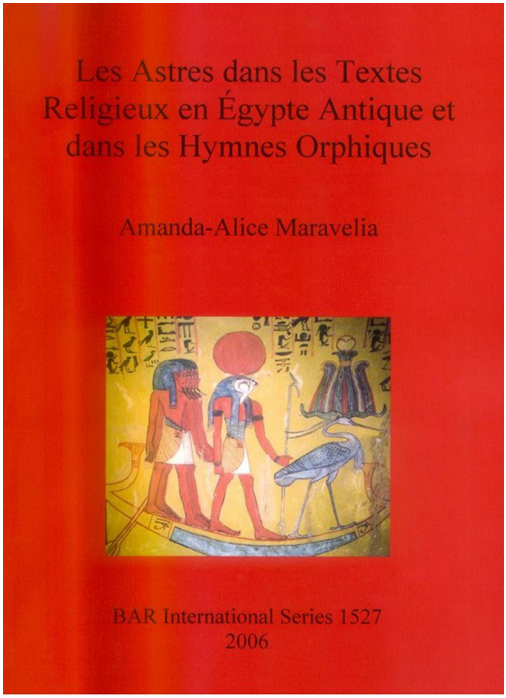
Рецензії

Maravelia, A.-A.: *Les astres dans les textes religieux en Égypte antique et dans les Hymnes Orphiques*, BAR International Series 1527, Oxford: Archaeopress, 2006, pp. 640 + xiv (ISBN 978-0-520266360)



In this remarkable PhD Thesis, published as a book by BAR [Maravelia 2006], as it was written by a Scholar who combines both astronomical and Egyptological studies, the evolution of astronomical thought, as well as various astronomical and cosmovisional ideas in pharaonic Egypt (*c.* 2800–1200 BC) were adequately examined, after the most important religious texts (primarily *Pyramid Texts* (*PT*)[1] and *Coffin Texts* (*CT*)[2], and secondarily *Book of the Dead* (*BD*)). More specifically, the author examined the astronomical conceptions of the ancient Egyptians concerning the stars, the Sun, the Moon and the planets, as they are revealed in these funerary texts. Maravelia compared them to similar astronomical notions found in

[1] See: [Faulkner 1998].
[2] See: [*CT*; Faulkner 1973–1978; van der Plas, Borghouts 1998].

the *Orphic Hymns*; and finally, she compared them (*mutatis mutandis*) with the necessary epistemological prudence to the modern scientific astronomical and cosmological conceptions. It is to be noted that the author's comparative study of the astronomical ideas of the Egyptians and the Orphics is complete, while her analysis of the Egyptian sources is not exhaustive, because other researchers had already worked on this domain with considerable success; nevertheless, a statistical analysis and a global comparative study of the *corpora* of *PT* and *CT* were presented in her book for the first time. The textual study of the *Orphic Hymns* and the funerary texts of the Egyptians was conducted within the interdisciplinary framework of both Egyptology and Archaeoastronomy. It showed that similar methods of textual analysis are very effective for dating ancient texts on the basis of their astronomical elements; it also offered much valuable information on the *forma mentis* and the astronomical ideas of the Egyptians of Antiquity.

The contents of this book, written by a very competent scholar in every aspect, are as follows. A short *Introductory Note* is followed by a *Preface* of acknowledgements. Then follows an *Introduction*, containing a preliminary account of the author's objectives.

In *Chapter I*, she presented the theme and the scope of her study, her methodology, and the tools she used to analyze the textual material in her comparative study; she also discussed various previous works and defined the terms *celestial body* and *astronomical*, both in the context of her research and in that of the ancient Egyptian thought and practices.

Chapter II is intended to be viewed as a concise introduction to the modern concepts of Astronomy, Astrophysics and Cosmology, in order to: (i) present the readers with a global overview of modern astronomical knowledge relevant to Egyptology (especially to the study of ancient Egyptian Astronomy); and (ii) offer a solid and useful basis for her (philosophical) comparisons between the Egyptian (and the Orphic) astronomical ideas and those of modern Astronomy and Cosmology. The principal celestial bodies are presented in this chapter under the prism of modern Science, as well as some important elements of Spherical Astronomy; a short introduction to the methods of Archaeoastronomy is also given; finally, a concise synopsis of the principal notions of modern Cosmology and Thermodynamics is presented. In various articles or monographs concerning the ancient Egyptian science there has been a number of brief mentions of purely astronomical

terms, without the slightest reference to the theoretical basis absolutely indispensable for their comprehension. This theoretical basis was given by Maravelia for the first time, and has been specially written for Egyptologists by the author who has studied both disciplines.

Chapter III is the nucleus of her Thesis, where the conceptions of ancient Egyptians concerning the celestial bodies – as they are revealed in their funerary texts – were examined. This chapter consists principally of a global (but non-exhaustive) study of the Egyptian ideas about the stars, the Sun, the Moon and the planets, as they appear mainly in the *PT* and the *CT*, while some analogues from the *BD* were only occasionally compared and discussed. It includes also a solid statistical analysis of the frequency with which these celestial objects, as well as various astronomical or cosmovisional phenomena, ideas and terms, appear in these funerary texts, along with a discussion on the evolution of the aforementioned astronomical notions over the centuries. In the same chapter, Maravelia studied the funerary texts as possible sources of information on the orientation of the Great Pyramids, as it has been already proposed: based on her Tables III.1–III.4, she unequivocally showed that no such information exists, with the exception of some fragmentary allusions, which have been erroneously interpreted by the advocates of tendentious theories. Her study went further, to examine such theories (mainly that proposed by Spence), showing their errors. On the other hand, she used certain characteristic literary (non-funerary) texts for comparison with the studied funerary texts: namely, the *corpus* of the ancient Egyptian *Love Poems* (*Ḥswt sḫmḫ-ib*), which contain some astronomical rudiments, as well as a clear allusion to an heliacal rising of Sirius that offers a possible method for their dating; the *Story of the Shipwrecked Sailor*, which has been characterized as an astronomical metaphor; the *Story of Sinuhe*, which not only comprises a "geographical narration", but also contains several allusions to Hathor/Nut, a cosmic goddess *par excellence*. The chapter ends with a comparative study of the astronomical knowledge of the Egyptians during the classical pharaonic period (i.e.: mainly the Old Kingdom and the Middle Kingdom, the New Kingdom being only occasionally dealt with, in accordance with her partial study of the *BD*).

Chapter IV is dedicated to the Greek *Orphic Hymns*, the textual archaeoastronomical dating of their astronomical and cosmovisional notions from *c.* 1300 BC (an era coinciding with the New Kingdom,

viz. the early Ramesside period), and the study of the astronomical conceptions that the Orphics had about the celestial bodies (stars, the Sun, the Moon and planets). Furthermore, she examined comparatively an Orphic hymn dedicated to Helios and a hymn to the solar god Ra, originating from the *BD*. In the same comparative context, she studied some analogous cosmovisional notions found in the *Orphic Hymns* as well as in the aforementioned Egyptian funerary texts (*cosmic egg*/*swḥt*, cosmic time, *Universal Law*/*Mꜣꜥt*, & c.). For the first time such a scholarly comparative study was presented by a person who combines both disciplines, Egyptology and Archaeoastronomy, and who is familiar with both the ancient Egyptian and the ancient Greek language. The chapter ends with a review of conclusions on the predominance of reason in the case of the Orphics, who were able to present proto-scientific notions; while the Egyptians (who never attained the status of pure Science *per se*), even if they were able to offer advanced cosmovisional ideas, were always basing themselves on the archetypal symbolism, and remained at the stage of pre-scientific ideas, although being always able to describe important astronomical phenomena as religious or cosmovisional allegories.

Chapter V is a brief but concise comparative study between the ancient Egyptian and the modern astronomical ideas on the celestial bodies. The conception of the sky-goddess Nut and her relation to the Milky Way is also studied here, showing that the expression *Msḳt*(*-Sḥdw*) must be referring to the Galaxy. It also gives a thorough philosophical comparative account (*mutatis mutandis*) between the ancient Egyptian cosmovisional and eschatological ideas and modern cosmological notions. The author discussed the "common points" between modern scientific theories (Big Bang, Anthropic Principle) and some ancient Egyptian ideas; she compared philosophically the inverse of the entropy to the conception of Maat (*Mꜣꜥt*), the millimetric background radiation (which fills the Universe) to the conception of god Heka (*Ḥkꜣ*), & c.

Chapter VI is the focal point of convergence of the main conclusions and ideas of the book, where Dr Maravelia also reviewed her final conclusions. It is a general synthesis of the conceptions that the Egyptians had of the celestial bodies, and of their cosmovisional ideas, as well as of a comparison with the astronomical ideas of the Orphics and with some modern astronomical notions. This short

chapter also presents a brief discussion on the future perspectives for research in the same interdisciplinary domain.

An *Epilogue* follows in which Maravelia presents some additional thoughts and remarks, in order to finalize her conclusions on the subject, the method, the scope and the results of her research. Next come the *Tables* and the *Indexes*, which present readers with a review of various modern and ancient astronomical conceptions, as well as with Egyptological notions dealt with in her study (classified and categorized in appropriate sections).

Finally follows the *Bibliography* (which in 2006 was as complete and up-to-date as possible), assembling the most important references on books, monographs and articles related to: (i) the astronomical conceptions of the Egyptians; (ii) various Egyptological themes concerned with the astronomical and cosmovisional notions of the Egyptians, as well as with their religious ideas, their funerary texts, & c.; (iii) works related to the Orphics, their cult and the *Orphic Hymns*, a domain that is not yet fully studied; (iv) writings on the Greeks of Antiquity and their scientific (viz. astronomical) developments and discoveries; (v) general and special works on Archaeoastronomy and its interdisciplinary methods; (vi) general and introductory works on the history of Astronomy since Antiquity; (vii) introductory and also specialized works on modern Astrophysics, Astronomy and Cosmology; (viii) introductory studies on modern Archaeology and its disciplines; and (ix) some general works on religion, and on the Philosophy and the Psychology of Archetypes of Karl Jung. This bibliography is followed by a *Table of Abbreviations*, containing useful Egyptological and Archaeoastronomical abbreviations, symbols, *sigla*, & c. The Thesis ends with extensive *Summaries* in French, English, Greek and German.

Since 2014 I am privileged to work together with Dr Alicia Maravelia, especially in our common Research project DCAEAT (Documentation of the Corpus of Ancient Egyptian Astronomical Texts), which will complete and correct Neugebauer's and Parker's work, including all recent astronomical texts and sources and will also digitize them; therefore, I felt as my obligation and also as a debt to the universal *Maat*, to write this review of her Thesis, deservedly published as a book by BAR/Archaeopress in 2006. On the other hand, this is a well-deserved answer to the negative critique of Dr Anthony Spalinger against Maravelia's book [Spalinger 2008, *108–111*].

I believe that Dr Spalinger should avoid calling the book as "lengthy", as this is not a criterion of quality. Being neither Astronomer nor Hellenist Dr Spalinger has been convinced that the *Orphic Hymns* belong to a "later date", although Maravelia, based on a critical approach of Chasapis' work, is proving unequivocally the much older conception of the astronomical ideas of the Orphic corpus, using undoubtedly precise archaeoastronomical software.

In his 2nd paragraph Dr Spalinger mistakenly states that Chapter 2 of Maravelia's book "covers the ancient Egyptian sources", because this Chapter is only an introduction to Astronomy and Archaeoastronomy, with emphasis in Egypt-related issues. It is in Chapter 3 where Maravelia examines methodically the Egyptian sources, mainly the *PT* and the *CT*. Having said that, Spalinger erroneously thinks that because Maravelia used older (Faulkner's, & c.) translations of the *PT* and the *CT* [Faulkner 1973–1978; Faulkner 1998] and not the more modern Allen's translation, she is to be criticized. This is not the best case to say that because: 1. Maravelia used the original texts, wherefrom she herself transliterated them in order to obtain the very important Tables of her Chapter 3; 2. if sometimes she uses Faulkner's translation, this does not mean that she accepts it or that she always translated according to Faulkner, as she has deep knowledge of the Ancient and Middle Egyptian Grammar; 3. the mention of Mercer's (outdated) book in her references does not mean anything: she only would like to present a full bibliography at the end of her book, that is why she included Mercer, as many other older references; 4. on the other hand, why Dr Spalinger does not refer to de Buck's work, broadly used by Maravelia for her concomitant Tables, where she has done the same, transliterating from the original?

Now we come to Spalinger's 3rd paragraph. Tables III.1 and III.3 are the useful and informative lists of all the transliterated references to astronomical and cosmographic terms in the *PT* and the *CT*. From them the most useful and important Tables III.2 and III.4 were derived, wherefrom the statistics, classification in special groups and basics for her study are very well and ingeniously given. It is only from the combined study of both groups of the aforementioned Tables that any term can be *comparatively studied in context* and also interrelated to other similar terms for both textual *corpora*. So the answer is definitely *yes*: these Tables are the core and the explicit sources of

Maravelia's study. Following Spalinger's line of ideas, one could easily ask whether the joint work of van der Plas and Borghouts, cataloguing the word index of the *CT* was useful, to which I answer of course yes! Besides, based on these very Tables Maravelia was capable of giving for the first time a statistically complete comparative analysis, studying and concluding on the various aspects of the astronomical ideas of the ancient Nile dwellers.

What Spalinger states in his 4th paragraph is not correct. Maravelia is capable of criticizing and questioning many theories in her book; however, she had not as target to talk or analyze Son-mout's astronomical ceiling, already examined by Leitz!

Concerning what Spalinger claims in his 5th paragraph, I point that Maravelia corrected Lexa's work and overthrew Spence's theory. Besides, Isler's work she considered as an important one, which is her right to do. As the book of Maravelia is also concerned with the orientations of monuments in Egypt, this is clear why Spence's theory should be included. This is more than evident! And it was Maravelia, who possesses two qualified PhDs in BOTH Astronomy and Egyptology, who wrote the book, not Spalinger, so she used her own way of thinking and debating, her mind being at the same time both Science- and Egyptology-oriented, and of course always open.

In his 6th paragraph, Spalinger continues to advertise his own views about several scholars, including again Dr Kate Spence, *et al*. Maravelia has proven the erroneous nature of Spence's theory, however she always respects Dr Spence and, as she has written, she believes that an observation of the simultaneous transit of two stars on the local Meridian of Giza, if proven, could be a very good method of orientation. Kurt Locher, MSc, is a very intelligent Astronomer, whose papers have been gladly published in several Egyptological and archaeoastronomical journals. Neugebauer's & Parker's *EAT*, on the other hand, were a milestone, however outdated, even when Maravelia was writing her 2nd Thesis. And not all Egyptologists believe that Neugebauer (an excellent Scholar, however Historian of Science) and Parker (a very good Egyptologist) were infallible or could evaluate all the material in a sophisticated way. This is only the personal opinion of Spalinger, who seems to forget the numerous and unceasing objections of the famous sir Alan H. Gardiner against Parker's theories[3], losing perhaps

[3] Cf. e.g.: [Gardiner 1955, *9–31*].

the forest for the trees. In his 7th paragraph, Spalinger wrongly believes that the ancient Egyptian constellations could never be identified with certainty. The work of Shaltout, Belmonte and other modern colleagues[4], who happen to be very knowledgeable Astronomers and who published their good work in significant journals, upon which Maravelia was based to present a first but not certain identification of the ancient Egyptian asterisms seems to be ignored by Spalinger. Modern Astronomy, as is well explained and proven by Maravelia in her book, has given us a precious and extremely precise archaeoastronomical software, that can be not only trusted, but accepted as an excellent tool for such studies. It would suffice to read some papers and references concerning the excellent precision and compatibility of Redshift… The equations, on which Maravelia is based, are given in both Chapters 2 and 4 of her study, while Redshift has been based on these and other equations. As for the precession, nutation and other parameters, Spalinger may consult the accuracy of Redshift and related articles[5].

In his last but one paragraph Spalinger missed the points that Maravelia used to present the *Orphic Hymns*, their astronomical elements and their comparisons to ancient Egyptian similars. He should have read carefully Chapter 1 of Maravelia's book, in order to understand why! Furthermore, Maravelia correctly states that not all Egyptian asterisms were decans. There were only 36 decans and the other asterisms should be called constellations: e.g. *Msḫtyw*/*Ḫpš* (= UMa) was not a decan, but a northern imperishable asterism, and so on. The fact that Dr Spalinger has published works on calendars and dating does not necessarily mean that he is always right or that all Egyptologists accept his theories[6]. And at the end of the day, nobody can fully agree with anybody else; the point is to write reasonably from a neutral, not from an attacking, standpoint.

Finally, concerning the last paragraph of this critique, at least two other reviewers of Maravelia's book were positive and neutral in their

[4] See: [Belmonte, Shaltout 2009], and references therein.

[5] E.g.: [Bretagnon, Francou 1988, *309–315*], on the VSOP87 solution used.

[6] *Contra* Spalinger, see e.g.: [Baud 2006, *149*, *151* & *n. 36* (it is to be noted that Dr Rolf Krauss in the same book, in his paper agrees with Maravelia on her rejection of Spence's theory; cf. p. 379, n. 79); Rainey 1987, *89ff*; Lange, Vervaet 2014, *Abstract, passim*]; see too the URL: https://vbn.aau.dk/en/publications/the-roman-republican-triumph-beyond-the-spectacle.

approaches that were written by two scholars who had knowledge of the ancient Greek and the ancient Egyptian Astronomy and language[7]. Besides, until now, Maravelia's book has more than 50 known references by other scholars in their papers and books. Although Dr Spalinger offered a few good remarks concerning the bibliography of the book, however he didn't paid much attention and efforts to analyze the main parts and original conclusions of her Thesis; he failed to perceive what Maravelia offered to both Egyptology and Archaeoastronomy with her unique research, published as a book: a scholarly and comparative insight into the Astronomy and the methodical analysis of the astronomical/cosmovisional notions of both the ancient Egyptians and the Orphics.

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[7] See: [Levet 2007, *296–297*; Musacchio 2008, *239–242*].

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