

of the time, such as Hieronymus Fabricius d'Aquapendente (1537–1619) and his pupil William Harvey (1578–1657), conducted their studies on anatomy and physiology. A key distinction is drawn between an account of facts (*secundum quid*) and an account of causes (*secundum quia*). In the course of his discussion, Lo Presti makes several perceptive observations. He points out, for example, that in the commentaries by Ludovico Boccadiferno (1482–1545), Bernardino Crippa (fl. in mid 16th century) and Simone Simoni (1532–1602), the soul is no longer studied from both divine and natural points of view: it is considered only part of the study of animals. Furthermore, Lo Presti shows that Fabricius, in a genuine Aristotelian spirit, does not contrast natural philosophy with medicine, but rather considers the latter as being part of the former.

To conclude, the collection as a whole is a fine addition to literature on Aristotle's *Parva naturalia* and its reception. Since the collection is based on presentations at the 18th meeting of the Karl und Gertrud Abel-Stiftung in Mainz in 2015, the reader should not expect a more systematic and extensive coverage of the subject matter. The editorial quality of the collection is impeccable, and the collection contains useful indices.

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SILVIA BALATTI – HILMAR KLINKOTT – JOSEF WIESEHÖFER (eds.): *Paleopersepolis: Environment, Landscape and Society in Ancient Fars*. Orient et Occidens – Studien zu antiken Kulturkontakten und ihren Nachleben 33. Franz Steiner Verlag, Stuttgart 2021. ISBN 978-3-515-12622-9; ISBN (e-book) 978-3-515-12629-8. 313 pp. EUR 62.

Environmental questions and landscape studies have been in focus during the last decades in archaeological research and study of history. Our intention to understand human interaction with the environment and modification of natural landscapes have provided the means to review present situations from a long-term perspective in a world that is undergoing a significant climate change.

An international colloquium on Paleopersepolis was organised in July 2018 at Kiel University in Germany, for which the volume under review is the published proceedings. The colloquium was part of the Paleopersepolis project that consisted of researchers from the European countries of France and Germany, namely the universities of Aix-Marseille, Regensburg and Kiel. The project was funded in the years 2014–2020. The multidisciplinary project aimed to study the ancient human-climate-ecosystem and socio-environment in Fars in the Persepolis basin and the neighbouring areas in southwestern Iran. The idea of the project was to reconstruct the ancient

situations in the studied region. The pioneering work of Wolfgang Fauth (1979) and Pierre Briant (1982) in the field of Achaemenid kings as gardeners and their estates seems to have inspired this German-French collaboration. The general interest in the past environment of the region evolved in the 1970s, during the time of the Shah and before the Islamic revolution, exemplified by Gerhard Kortum's studies on water management. Such hydraulic studies are important fields of inquiry in the region, which since the 1960s Robert McCormick Adams pioneered in Iraq in the Diyala region in his studies on Ancient Mesopotamia.

The Paleopersepolis project concentrated on a time frame of over 1,000 years of imperial reign from the Neo-Elamite (c. 1000–640 BCE) to the Early Islamic periods, with a special focus on the Achaemenid and Sasanid rulers (550–330 BCE and 224–651 CE). However, the project acknowledged that the study of the environmental interaction is sometimes hard to pinpoint chronologically starting, for example, from the development of domestication for which there is regional early Epipalaeolithic and Neolithic evidence from the mountainous region of Zagros. The time scale of the project comprises, *inter alia*, the world when the Persians ruled the Near East and Aramean was *lingua franca*. The periods of Persian and Parthian rule have received somewhat minor attention in Western studies on the Ancient Near East written in English, and research interest often falls into the hegemony of the Assyrian, Babylonian, Hittite and Egyptian empires, not to mention the Greek and Roman rule in the East, which are constant goals of research. Hence, the studies and results of the European project on Paleopersepolis are more than welcome, especially when attention is paid to the regional development of the environment.

The book consists of twelve chapters from various viewpoints of the study area. All the articles form well-researched and expert-based chapters that provide approaches both on the macro- and microscale, from the environment and landscape to specific geologies of minerals in colours and plant species as well as linguistics and historical sources. There is an appendix of illustrations and a handy index. It would, however, have been helpful for a reader to have the map of Iran and the region of the project marked in it in the introduction of the book. The map belonging to the first articles on Pl. 1 of Parsa/Persepolis is unclear and lacks the scale as the numbers of coordinates are so small they are not visible. The grid, however, apparently provides directions as there is no north arrow.

The first chapter in the book after Silvia Balatti's introduction is Jan Tavernier's article "The Linguistic Landscape in South-western Iran from the Neo-Elamite to the (Early) Islamic Period". This is a good study and provides a useful background to understand the human ethno/linguistic tapestry in the Fars region in historical times. Its time scale starts from the Mesopotamian texts and the Sumerian Ur III period of the 3rd millennium BCE, providing a historical chronology of the study area. From an overall view and approach of the book derived from its title environment, landscape and society, the prehistoric, geological and palynological

studies presented could have served more the book's aims from the outset in order to reach the perspective of the *longue durée*.

The three main chapters that deal with the area of Fars from the perspective of the title in macroscale are the second, the fifth and the seventh chapter, and their arrangement could have been rethought. The seventh chapter "An Update on the History of Arboriculture in Ancient Iran" by Morteza Djamali, Sara Saedi Ghavi Andam and Peter Poschold, which deals with geology, prehistory and palynology of the region, could well have served as the opening chapter of the book in its scale of approach and its chronological overview that stretches back to geological and prehistorical periods. For Pl. 11 the authors provide pollen curves of dominant cultivated trees from Iran, giving clear calibrated radiocarbon datings covering a period of approximately 4,000 years.

The second chapter, "New Data for an Updated Archaeological Sequence of Pārsa/Persepolis" by Alireza Askari Chaverdi, provides a macroscale view, focusing on the region of Persepolis, and especially Persepolis West. The chapter concentrates on the settlement history of the region, briefly dealing with the Persepolis Terrace and its use for gardens and other areas of cultivation. The past survey by W.M. Sumner in the Persepolis plain, including its mounds and the identification of Achaemenid settlements, serves as a basis. The updated study of the settlement history seems to concentrate on an area from Firuzi to Takht-e Gohar along the eastern bank of the River Sivand. More detailed analyses of the environmental and landscape context of the settlements and monuments in the Persepolis plain are hopefully forthcoming in other publications.

In the fifth chapter, "Approaching Past Landscape Management in the Field: Pluridisciplinary and Multiscalar Studies in the Pasargadae Region (Fars Province, Iran)" by Sébastien Gondet, Khouroush Mohammadkhani, Marie-Laure Chambrade, Morteza Djamali, Mahdokht Farjamirad, Nabil Iboerrida and Jean-Baptiste Rigot, the landscape aspect is taken up in the archaeological study of field management. Water, represented by rivers and irrigation canals, are vital fields of research (p. 103) that create environmental possibilities for gardens and parks. Water as an essential element of life in the Near East is central to studying its environment. This study has been commended for using both remote sensing with satellite imagery (CORONA, SPOT, Pléiades) and aerial photographs as well as an empirical pedestrian survey on the ground. The CORONA declassified satellite photographs that were used date from the 1960s and are originally films that have been digitized and can thus be called images. However, calling them pictures (p. 109) is inaccurate and possibly the result of a mistranslation. The radiocarbon datings should be officially marked as Carbon-14, C-14 or ¹⁴C but are incorrectly presented as C14 (p. 112, 114), again possibly an error caused by the editorial process. It is also unclear whether the radiocarbon datings of the Shahidabad dam that provided the dates 4000 BP and 2500 BP are calibrated, as no cal BP is given. It is good to know, however, that the optical datings of the sediments were also applied. Ultimately, the analyses of the settlement development and studies

of canals, channels and dams are vital for the research targets and make an important contribution to the study of the project. There are good maps of satellite image data, such as ASTER-DEM and Bing/DigitalGlobe, but on Pl. 9, an explanation is not given to the black lines that appear in Fig. 5, which seem to be structures. The pie charts on main pollen types on Pl. 10 are elucidating, but for a non-expert the translation of the list of the Latin names of plants would have been helpful.

Jan Tavernier's article on the linguistic landscape could have been placed after the archaeological surveys followed by the minerals presented by Alexander Nagel. Nagel concentrates on materials and colours in Persian courts and the surrounding mineral world of nature in the palaces. *Lapis lazuli* was a highly sought material, often being combined with gold both in Fars and in the other royal courts of the Near East. It was usually attained from the area of modern Afghanistan. Archaeometric analyses of paints and other decorative surfaces in stone monuments can bring to light to the substances and layers used. Nagel provides an overview of earlier studies and their results. Josef Wisenhöfer's chapter on the definition of Paradise, Persian *paradeisoi*, fenced areas full of trees and wild animals, is enchanting. Wisenhöfer's article focuses well on the subject of the project and also pays significant attention to the role of water. As an overall view of gardens it could well have been followed by Wouter F.M. Henkelman's study on fruit species and by Silvia Balatti's on wine consumption. They are all fine studies.

In Henkelman's article the Persepolis Fortification archives serve as an important source for studying the fruit species grown in the kings' gardens, and pollen analyses provide additional information. Arboriculture reached a high level in Achaemenid times. Nuts, peaches and grapes were commonly grown. In the archival information quince, mulberry, apple, pear, probably fig, pomegranates and olive also occur. The cultivation of vines and wine production appears to have been a long undertaking, starting already in the neighbouring Caucasus areas in the Neolithic period. When reading about *rhyta* drinking vessels and the storing of wine I expected to have some information about *amphorae*, which are major vessels for wine storage and transport. The order of geology and then plants would have been hierarchically suitable in scale and chronology.

The Greek conquest by Alexander the Great and the studies on the Sasanian period are well placed at the end of the book. Hilmar Klinkott pays attention to Alexander's campaign and the topography of Persis in the classical sources, such as Diodorus, Pompeius Trogus, Strabo, Arrian, Plutarch and especially Curtius Rufus. There seems to be historical evidence to reconstruct the landscape of the region, although in some cases uncertainty about the Middle Persian information, the sporadic nature of the descriptions and the artificial literary constructions cause problems. Pierfrancesco Callieri takes a useful approach to study the connectivity of the region to the coastal areas (the Persian Gulf) in the Sasanian period. The archaeological evidence supports the expansion of settlements to the coastal region through water management during the Sasanian period.

Khodadad Rezakhani's chapter on the nobility and the land is a fine study of the urban planning and construction tied to the elite and their power in the Sasanian Empire. The question of imposing the material features of power on the environment is very well presented and introduces a societal aspect to land use. The final chapter by Georg Leube is intellectually stimulating, being devoted to an Islamic palimpsest, the application of the process of Islamization on the artefacts and ruins of Tachara and the Palace of Dareios the Great at Persepolis by reusing them and responding to their inscriptions. The practice started early on and continued through several rulers up until the Islamic Age. This can be seen as a societal development that included polemics that appeared in the inscriptions of the target area in its architectural space.

Although some maps, chronological tables and a reorganization of subjects from the environmental macroscale to small-scale subjects, and chronologically from prehistory to history, might have provided a better flow, overall this is an interesting publication that serves the need for a better understanding of the environment of ancient Fars.

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GIULIA BARATTA – ALFREDO BUONOPANE – JAVIER VELAZA (a cura di): *Cultura epigráfica y cultura literaria: Estudios en homenaje a Marc Mayer i Olivé*. Epigrafia e antichità 44. ISBN 978-88-7594-143-7. Fratelli Lega Editori, Faenza 2019. 444 pp. EUR 80.

This collection of studies in honour of the prominent scholar Marc Mayer contains, in addition to an introduction by the editors appropriately titled "Totus in litteris" (surely reflecting *sum quidem prope totus in praediis* in Pliny the Younger, *epist.* 3.19.8), 26 papers, fifteen in Italian, six in Spanish, two both in French and in Portuguese and one in English. A bibliography of Mayer would also have been welcome, as the author is known for his wide interests within classical studies. From the introduction one learns (p. 7) that the papers originate from a colloquium held in Barcelona in 2017 in order to celebrate Mayer's seventieth birthday. In this assessment, I shall concentrate on those contributions which I find to be of more general interest; although I must of course admit that even papers that deal with very specialised and (perhaps from the point of view of some scholars) marginal subjects (e.g. that of Juan Manuel Abascal Palazón on the "epigraphical habit" in a remote region south of Toledo in Spain, p. 13ff.) are sure to be of interest to some epigraphists.

Giulia Baratta presents a number of inscriptions, mainly but not exclusively from Spain, that have "singolari interpunzioni epigrafiche" (p. 29ff.). Special attention is accorded to the inscription