with one common characteristic – poison – is not to be wondered. Even now, more than two centuries after Linné's work, many non-biologists tend to mix the different species.

In the second chapter some possibly relevant iconographical evidence (a few works of art and some manuscript illustrations) are discussed. It is a pity that we have no illustrations here.

The book concludes with a detailed bibliography (almost 40 pages), several indices and four colour plates presenting the four different identifications of $\sigma \eta \psi$. A fifth showing the imago of the moth would have been nice.

Klaus Karttunen

LUCIO CECCARELLI: *Contributi per la storia dell'esametro latino*. I–II. Studi e testi tardoantichi 8. Herder, Roma 2008. ISBN 978-88-89670-36-1, ISSN 1973-9982. 238 pp., 110 tavv. EUR 50.

The dactylic hexameter is a unique metre in that it allows a variety of expression and personal poetic styles, as its long history in Greek and Latin literature manifests. This owes largely to its considerable length and its employment of two distinctly different metrical feet: the dactyl and the spondee. It is also remarkable that Roman authors imposed a new set of rules on its basic structure: this was mainly necessitated by the high rate of long syllables in the Latin language as well as its system of accentuation. Indeed, judging by the extant fragments of Ennius' verse, Latin hexameter poetry showed, from its very beginning, several features which its Greek models do not have. The Latin hexameter is generally characterized by its very high rate of spondees and its system of caesurae: virtually all Latin hexameter lines have either a penthemimeral or a hephthemimeral caesura (a word break in the middle of either the third or fourth foot). Even these restrictions allow for significant variation in the employment of the metre, and the individual styles of authors are easily recognizable by their placement of dactyls and spondees and their use of word division.

Several attempts to chart the history and evolution of the Latin hexameter using statistical methods have been undertaken previously, but none of them are as extensive or ambitious as Ceccarelli's compendium: the author has manually scanned and analysed over 140,000 lines of hexameter verse from Cicero's Aratea to Venantius Fortunatus' Vita Sancti Martini. As the sheer scope of such a study is in itself massive, the author has, probably wisely, limited his analyses to a handful of the central structural features of the Latin hexameter. The main objects of his study are the ratio of dactyls and spondees, their placement in the hexameter line and the use of different dactyl-spondee patterns. Ceccarelli's study of other structural phenomena such as word division is more narrowly focused, and his observations are, by and large, limited to penthemimeral and hephthemimeral caesurae, line endings and the use of elision. The author himself readily admits that he discusses the structure of the hexameter on an abstract level, and syntax and style do not enter the picture (although he does touch on such considerations in his immensely learned footnotes). Ceccarelli divides the first volume of his work into two sections: in the first, he discusses the early exponents of the Latin hexameter up to Juvenal, and in the second, the Late Antique poets. The second volume of the work contains the statistics to which Ceccarelli constantly refers in his first volume.

Arctos 47 (2013)

Ceccarelli's inevitable model in his study of the frequency and distribution of dactyls and spondees is George E. Duckworth (e.g., *Vergil and Classical Hexameter Poetry: A Study in Metrical Variety*, Ann Arbor 1969), and, similarly, he uses four-foot patterns as his main tool of analysis. On the whole, his statistical methods are more solid than those of his predecessor; also, his corpus of study is much more extensive (Duckworth only analysed partially the works of most Late Latin poets and excluded Venantius Fortunatus altogether). Ceccarelli has also renounced several of Duckworth's specious conclusions and generalizations: unlike Duckworth, who generally lumps most poets of the Silver Age and Late Antiquity together into the groups of 'post-Vergilian' and 'post-Ovidian' authors, Ceccarelli effectively demonstrates that such poets as Lucan, Statius and Valerius Flaccus were also true innovators and that the evolution of the hexameter did not end in Late Antiquity.

Ceccarelli demonstrates the gradual 'dactylisation' of the hexameter that took place in Classical and Silver Latin verse: remarkably, he observes not only the roles of individual feet but also their combinations, showing that the process was not uniform: different authors favoured dactyls in different feet, and although the tendency was towards a more dactylic and 'hexameter-like' style, alternation of dactyls and spondees was sought even by the most dactylic authors. Regrettably, there is no room for an actual discussion of style and genre in Ceccarelli's work: it is obvious that the process of dactylisation actually ran counter to many features of spoken Latin, such as syncopation (e.g. *calidus* > *caldus*), which largely account for the relatively high ratio of spondees in the more colloquial Roman satire of even such late exponents of the genre as Persius and Juvenal. Similarly, Ceccarelli's discussion of word breaks takes place on a very abstract level without entering into such stylistic issues as enjambment. But, taken as a whole, these are very minor reservations indeed, and Ceccarelli's thorough, and thoroughly-analysed, data are nearly always very thought-provoking.

In general, Ceccarelli's momentous work is probably of most use for readers who are already well-acquainted with hexameter style and its concomitant metrical features; those who are not would be wise to turn elsewhere for preliminary instruction before consulting the book. For serious scholars of the Latin hexameter, however, *Contributi per la storia dell'esametro latino* should prove an indispensable companion.

Seppo Heikkinen

HERMANN HARRAUER: *Handbuch der griechischen Paläographie*. Text- und Tafelband. Bibliothek des Buchwesens 20. Anton Hiersemann Verlag, Stuttgart 2010. ISBN 978-3-7772-0924-1. XVI, 534 S., 285 Abb., CD-ROM. EUR 188 (Textband), EUR 142 (Tafelband).

Die griechische Paläographie ist nicht nur ein wichtiger Zweig der Forschung, sondern kann auch zur Beantwortung allgemeinerer Fragen herangezogen werden, z. B. der Frage nach der allgemeinen Lese- und Schreibfähigkeit sowie der Ausbildung der Schreiber in der Antike. Dies ist natürlich allen bekannt, die sich in irgendeiner Weise mit Papyri beschäftigt haben. Allerdings ist es bekanntlich nicht immer einfach, Papyri überhaupt zu entziffern. Dieses Handbuch erleichtert dies aber ohne Zweifel.

Das Werk besteht aus zwei Bänden, von denen der erste eine allgemeine Einleitung in die Paläographie, die Materialkunde, die äußeren Formen der Schriftträger, den Buchhandel,