

Review by: Maria Americo, Saint Peter's University – February 1, 2020

Marcelo Epstein and Ruth Spivak's *The Latin of Science* fills an immense gap in the corpus of Latin textbooks: it is the only anthology of which I am aware devoted to the presentation of selections from the twenty centuries during which Latin was a major language of scientific writing.

Epstein and Spivak's Preface provides some context essential to understanding how they envision this unique textbook might be used. They have taught, at the University of Calgary, a two-semester course geared towards science majors (not Classics majors!) whose purpose is to make students aware of the legacy of two thousand years of science composed in the Latin language. In the first semester, students receive an introduction to Latin grammar. In the second, they dive straight into reading scientific texts in the original language, during which "some of the minutiae of Latin grammar can happily be avoided without detriment to the original aim, "a strategy which the authors recognize as a "non-standard route of presentation" (xi).

Because of the enormous length of history that the anthology's texts span, the authors' introduction has much work to do. In only 10 pages, the introduction aims to orient the students within the historical periods from which the texts in the anthology come: the Classical Period (from "the beginnings" until 476 CE), the Middle Ages, and the Modern Era (from 1300 until today).

The order of the texts' presentation is "non-standard." A "standard" Latin textbook strategy might be to build from simple to complex in a cumulative fashion, presenting "easier" grammatical concepts and shorter, more heavily adapted Latin passages in the beginning and progressing gradually to more difficult concepts and longer passages closer (or identical) to their original Latin forms by the end. Instead, the passages of this book are organized according to the field of scientific study to which they belong. Each excerpt includes a short introduction to the author's life and works, the passage itself (most are around 1–2 pages), and the textbook authors' notes to aid in comprehension. In addition, a facsimile of a manuscript of each text is provided. While an interesting idea, and one that may spark a student's hidden interest in paleography, the reproductions are not always clear and may be a distraction.

All the passages are un-adapted. Many passages come from eras of the Latin language rarely taught to undergraduates, and the scientific concepts introduced may be difficult or unfamiliar. Therefore, the notes also have much work to do in addressing both the Latin and the scientific concepts. Some are historical, shedding light on a figure of ancient science named by the text's author. Some are grammatical; and many of those highlight the instances in which "later" Latin differs from the Classical Latin that students with some exposure to the language would most likely be familiar with; for example, in their notes to Nicole Oresme's *Tractatus de Origine, jure et Mutationibus Monetarum*, a treatise on the origins, legal status, and variations of coinage, Epstein and Spivak write that "in typical Renaissance Latin, the indirect statement/oratio obliqua is avoided and replaced by quod" (207). Finally, some notes aid in elements of the translation process, such as word order or word choice, which is, of course, both important and difficult when scientific terminology from eight different fields of study is being presented in one book.

The eight fields Epstein and Spivak have chosen are General Knowledge (headed off by a passage from Pliny's *Quaestiones Naturales*), Architecture and Engineering, Medicine, Mathematics, Astronomy and Rational Mechanics, Optics, Economics, and Chemistry. Economics seems an odd choice for an anthology of science—the texts included are from Oresme's (1320–1382) *Tractatus* (mentioned above) and Domingo de Soto's (1494–1560) *De Iustitia et Iure*—but their inclusion would interest any economics majors who may have found their way into the class. The sixteenth-century texts from the Chemistry chapter come from a fascinating period of the changing field, when this science straddled ancient alchemical practice, metallurgy, and modern chemistry. One of the challenges and rewards of studying the history of science is understanding how, when, and why scientific fields change and develop over time, and the transition from alchemy into chemistry is a fruitful nexus for such study.

The anthology ends with three appendices. Appendix I is on the pronunciation of Latin; Appendix III is a brief guide to the "quirks" of the manuscripts and early printings of the texts presented in the book. Appendix II is a compendium of Latin grammar, and, as such, takes up almost a fourth of the book. However, for an introduction to Latin grammar, especially one meant to enable students who have never encountered the language to read texts from Vitruvius' Classical Latin to a medieval Latin translation of Ibn al-Haytham's Arabic text on optics, it is slim. Many college students, even Classics, English, or other humanities majors, find themselves learning grammar in general through their study of a new language—particularly an ancient language, where instruction is often focused on, and through, grammatical concepts. Though the grammatical appendix is clear and concise, it might not be sufficient as students' sole introduction to Latin grammar, despite the authors' hope that this anthology be "self-contained" (xii) as a teaching tool.

This book could be used as the authors intend: as a tasting menu for science majors with more focus on scientific concepts and history of science than the finer points of Latin grammar and would work well as such. Considering the popularity of STEM fields in today's university and workforce, it seems profitable to welcome science students into the Classics department, and to make them aware of the ancient origins of their fields. But for students who are interested in the grammar and language of the texts and not only the content, I would recommend this anthology for intermediate or advanced Latin learners, whether on the college or the secondary school level. Students who have some command over Classical Latin grammar can adapt more easily to the changes presented by later Latin, and from there can appreciate the history, legacy, and reception of classical science, a rich and global field that spans from Late Antique Egypt to medieval Spain to Renaissance Poland and beyond.