Arielle Saiber. *Measured Words: Computation and Writing in Renaissance Italy*. Toronto: University of Toronto Press, 2017. Pp. 260. ISBN 9780802039507.

From many directions, there is a renewed interest in thinking about relationships and boundaries between academic disciplines, particularly between sciences and humanities. By retracing the journeys that past thinkers took across these frontiers, we may unveil connections that are almost unthinkable in our present context.

Arielle Saiber's illuminating and thoroughly researched study of four Italian Renaissance thinkers reveals a radically different way of orienting mathematics to literature. Her presentation of the ideas of Leon Battista Alberti, Luca Pacioli, Niccolò Tartaglia, and Giambattista Della Porta dramatically rotates our assumptions about how computation works with other disciplines to create a vision of the universe. As one reads her deeply insightful work, one travels through these mathematical texts in a way that continually discloses new dimensions of interactions between numbers, shapes, letters, and words.

One of Saiber's most immediately striking points involves the relationship between computation and cryptology. We might ordinarily assume that the purpose of math is to help clarify objects and ideas: Saiber reveals that, for many Renaissance thinkers, the opposite was the case. Leon Battista Alberti used algebra and computation to develop a complex (at least for his day) system of encoding language based on interlocking wheels of letters. Niccolò Tartaglia developed a method for solving quadratic equations, yet he did not want to rush into publishing it. As he came under increasing pressure, he decided to write a poem that presents his method in an encrypted way. For both authors, the interconnection between math and language was not to clarify but to obfuscate. This turns our ordinary expectations about the purpose of mathematics on its head.

Saiber's penetrating analysis goes further, however. By putting Alberti's *De Cifris* and Tartaglia's "Quando chel cubo" in the context of the wider projects of the two authors and their intellectual context, she uncovers a deeper level of meaning. The use of algebra to obfuscate becomes part of a process for revealing the hidden in the world. She describes Alberti's project by writing, "The better one knows the known, the better one can cloak it, simulate it, dissimulate, or create something new and unknown. Alberti's deep knowledge of both mathematics and language patterns gave him a powerful key that let him see things, which he could

then tightly encrypt” (48). Encryption for these authors was not simply a means of trickery but part of the search for knowledge.

Saiber’s discussion of the other two authors uncovers further unfamiliar ways in which mathematics was used to create words and symbols that illuminate meaning. She carefully analyzes the alphabet that was mathematically constructed by Luca Pacioli. His letter ‘M’, for instance, is used by the Metropolitan Museum of Art as its logo. While some may think Pacioli’s capital letters are an application of the golden ratio, Saiber disputes this. While Pacioli discussed the golden ratio, he does not appear interested in applying it to art or architecture (90). Saiber claims that the uniqueness of the alphabet is Pacioli’s use of an unusual 1:9 ratio (82–83); she finds this same ratio in Pacioli’s diagram of the human head (92). However, she makes clear that Pacioli himself never comments on the specific importance of the number 9 or the 1:9 ratio. Instead, Saiber writes, “For the letters of his *degno alphabeto Anticho*, Pacioli is primarily interested in demonstrating their direct relationship to both the circle and the square” (95). From this point, she traces connections between Renaissance arguments in geometry in relation to arguments about literature. They placed value on the way letters were constructed, and the way they presented meaning. This is a relationship that we may currently overlook as a purely aesthetic consideration without recognizing a deeper value.

Saiber’s final chapter is a significant analysis of Giambattista Della Porta’s *Elementorum curvilinearum libri tres*. This work was neglected by scholars in Della Porta’s day and is neglected even now because of errors in its mathematics, particularly in its failed attempt to square the circle. Nevertheless, by putting it in the context of the other three authors, Saiber shows how Della Porta combines mathematics with literature to engage in verbal invention and obfuscation. She argues that as one works through its computations, one can see how it combines ancient Greek wisdom with novelty (165). Even though Della Porta’s work on math vanished, Saiber shows that it remained a source of inspiration (172).

Saiber’s work is scholarly in that it is informed by a wide-ranging investigation of Renaissance sources and recent research. It also engages in many current debates about these four authors. This work will certainly be of interest to scholars of the Renaissance and the history of mathematics. Nevertheless, I think the work should have broader appeal. Saiber’s scholarship never impedes the imaginative energy that drives her writing. The value in this work is the way in which it gives us access to radically different ways of thinking about the activity of computation. Even if readers do not have much background either in the Italian Renaissance or

mathematics, anyone interested in reorienting the relations of numbers, letters, shapes, and words will find this book to be a treasure trove.

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Raffaele Lampugnani. *La prima traduzione italiana de La Celestina: Primo commento linguistico e critico agli inizi del Cinquecento*. Firenze: Leo S. Olschki, 2015. Pp. 171+xxii. ISBN 9788822264237.

Raffaele Lampugnani's precise philological study compares the first Italian translation of the Spanish masterpiece commonly known as *La Celestina*, made by Alphonso de Hordognez in 1506, to the *Tragicomedia de Calisto y Melibea*, attributed to Fernando de Rojas and first published in its 21-act version in 1501. Lampugnani's aim is to come to a deeper appreciation of the style, method of translation, and attitude of Hordognez by analyzing his translation from the inside, without presuming to formulate "conclusioni risolutive" outside the text under examination (153).

Departing from Hordognez's introductory letter to the 1506 translation, Lampugnani offers in the first chapter a convincing and admirably detailed biography of the translator, including Hordognez's warm support of Pope Alexander VI and antipathy for the Borgia successor Julius II. He further follows in the first chapter Hordognez's connections to several interlocutors from Baldassar Castiglione's *Book of the Courtier*, filling in the gaps of the translator's cultural interactions in Urbino, Rome, and Valencia. The second chapter catalogues the 13 subsequent editions of the *Celestina* containing Hordognez's translation and the mention of seven others that Lampugnani categorizes as "dubbi essendo ir-reperibili" (13).

Chapters 3–5 define and parse Hordognez's method of translation. Lampugnani demonstrates how Hordognez endeavours to remain faithful to the content of the text. His Italian lexicon, morphology, and syntax mirror quite closely those of the original Spanish, if anything erring on the side of translating too literally—in some cases offering hispanisms that are false friends (i.e., *no auemos dormido sueno* remains "non hauemo possuto dormire sogno" in the Italian translation, though the expression, Lampugnani notes, would be more accurately