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Guicciardini, Niccolò. Isaac Newton and Natural Philosophy

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community in Florence. The essay, by showing the fertile ground for exchanges between Spanish intellectuals and prominent figures from Florence's finest cultural environment, adds a great deal to our knowledge of Florentine intellectuals and courtiers and the Spanish residents in the city of Machiavelli.

José Javier Rodríguez brings to the stage another important figure of the Spanish theatre, Calderón de la Barca, and shows how some locations set in Portugal or Italy served as a "location role" that was used to enhance the sentiments expressed by a play or a tragedy.

Mariagrazia Russo, in her "Il Cancioneiro de Luís Franco Correra (1557–1589): un approccio metodologico a partire dalle sue postille," provides a thorough philological landscape of an important *canzoniere* and its linguistic Lusitanian-Judaic characteristics.

This short but scrupulously edited collection of essays is an excellent piece of scholarship on an important topic for studies of the Italian and Spanish Renaissance and baroque.

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Guicciardini, Niccolò.

Isaac Newton and Natural Philosophy.

London: Reaktion Books, 2018. Pp. 268 + 43 ill. ISBN 978-1-780230906-4 (hardcover) GBP 14.95.

Niccolò Guicciardini's *Isaac Newton and Natural Philosophy* is a biography of the famed philosopher and natural scientist. While there are many excellent biographies of Newton, Guicciardini's work is novel not only for its style of presentation but also for its form. The book is beautifully written, and the author uses a minimum of notes such that the reader is able to glide easily through the text without having to stop to verify and check sources and references. A scholarly work, the biography is also laden with over forty images that showcase Newton at the various stages of his life, his manuscripts, or relevant historical images. Many are in colour, and this adds to the beauty of the volume. This volume could easily serve as a reference guide for general information about

Newton's life and work as well as a beautiful art book for display in one's home or study.

In addition to presenting a comprehensive account of Newton's life and work, Guicciardini advances a thesis: a careful study of Newton's life reveals a complex figure who was a man of his age, caught between the Renaissance and the Enlightenment, coloured by some medieval sensibilities. Newton, contrary to popular belief, was not only the developer and practitioner of a strict, empirical modern science; he was also a thinker deeply interested in alchemy and religion, and a critic of the established Anglican faith, especially when it came to its Trinitarian doctrine. Guicciardini carefully interweaves all of these aspects of Newton's life into the biography, showing relevant points of tension but also great harmony.

The work is divided into seven parts. The introduction focuses on various images and depictions of Newton through history while providing a general picture of his historical period. The Introduction sets the stage for the broader, contextualized reading of Newton that the author pursues in his aforementioned thesis. Beautiful colour reproductions of Newton greet the reader. Chapter 1 focuses on Newton's humble but generally secure upbringing in Woolsthorpe and his move to Cambridge for university study. Here, Guicciardini reminds readers of the turbulent times "that transformed the monarchy, the Church and Parliament. In his long life, Newton witnessed the Civil Wars (1642–51) and the Interregnum (1649–1660), the Restoration of the Stuarts (1660–88) and the Glorious Revolution of 1688, which placed William of Orange and Queen Mary Stuart on the throne, and finally the Hanoverian succession (1714)" (22). Chapter 2 chronicles Newton's early achievements, some of which happened during an epidemic in which the university was evacuated and while Newton was in the countryside. In particular, the author focuses on Newton's engagement with mathematics. We learn how the philosopher and scientist critiqued important figures like René Descartes, François Viète, Frans van Schooten, William Oughtred, and John Wallis in order to develop his own binomial theory: "This allowed him to approximate curvilinear areas via 'infinite series', that is, by summing an ever-increasing number of terms" (48). Newton discovered a new calculus. It was also during this period that Newton made discoveries about light, especially in relation to the prism and the telescope, and had new insights about the movement of the planets and the moon.

Chapter 3 discusses Newton's tenure as the Lucasian Chair of Mathematics at Cambridge. It was during this time that Newton took up cosmological questions while entering more seriously into alchemical research. He challenged established mechanical models of thinking and hypotheses, defending more mathematical models related to empirically observable phenomena:

[C]ombining experience and geometry [...] sunlight was not simple but a heterogenous mixture of an infinity of differently re-frangible and immutable rays, each being associated with a pure colour. It was necessary to abandon mechanical hypotheses and restrict ourselves to statements concerning the mathematical regularities exhibited by observable phenomena. Here, in a nutshell, is Newton's ideal of mathematical natural philosophy. (91)

Chapter 4 examines the years 1675–83 and stresses some of Newton's alchemical speculations, especially on the nature and function of ether. And though he speculated on the nature of metals, drawing upon alchemical insights, Guicciardini reminds readers that Newton was not a traditional alchemist insofar as he distanced himself from Rosicrucian readers of Hermes Trismegistus and alchemists that relied heavily on gnostic, Neoplatonic, and kabbalistic texts, partly because, in Newton's mind, these sources ought to be blamed for distorting the essence of Christianity (104, 135). It was also during this period that Newton began to develop metaphysical positions vis-à-vis his rejection of Cartesian dualism, and we find evidence of his deep engagement with Christianity. In his arguments against Athanasius, for example, Newton collected scriptural and scholarly evidence of Athanasius's conspiratorial plot against Arius (136).

Chapter 5 focuses on Newton's breakthrough as a "natural philosopher." From 1684 to 1695, Newton developed his view of absolute time and space. Guicciardini rightly shows how Newton's laws of natural motion and gravity emerge in and through, with fraught engagement, Robert Hooke's work. Newton published his *Philosophiae naturalis principia mathematica* (*Mathematical principles of natural philosophy*) in 1687. The work presents Newton's laws or axioms of motion, his theory of gravity, and his theory on the movement of the planets (based on Kepler's observations). Newton's work revolutionized science and laid the foundation for a system of physics and mathematics

that would be dominant for nearly two hundred years. The establishment of Newton as a great figure in the history of science coincided with the rise of Newton as an important political figure in London. The last chapter of the work treats Newton's final years (1696–1727). The publication of his *Principia* made Newton an international figure as well as a public figure. He continued to debate scientific questions, for example, about the movement of the moon and the establishment of longitude, and he continued to refine his mathematics and views about God, which were based on revisions of his *Principia*. Newton also began investigating and writing a history of human civilization, which he hoped would follow various insights he had about nature.

Guicciardini's solid biography of Newton succeeds in making Newton's complex, sometimes contradictory life, accessible to the reader. The author shows not only the traditional philosopher and natural scientist but also the metaphysician, theologian, public figure, alchemist, and historian.

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Ibbett, Katherine.

Compassion's Edge: Fellow-Feeling and Its Limits in Early Modern France.

Philadelphia: University of Pennsylvania Press, 2018. Pp. 296. ISBN 978-0-8122-4970-5 (hardcover) US\$79.95.

France's disastrous Wars of Religion loom over historical and literary scholarship not only of the sixteenth century but also, increasingly, of the seventeenth. Like Andrea Frisch's *Forgetting Differences* (2015), *Compassion's Edge* scrutinizes the wars' aftershocks and the pervasive trauma they bequeathed to an era that had not recovered so completely as it would have liked. As does the earlier study, Ibbett's book develops a reflection on spectatorship: what does it mean to observe another's suffering and do nothing? Compassion creates a response without a relationship and kindly feeling without friendship—at least until Corneille. Yet this distance, Ibbett argues, also constructs a potent space of reflection and imagination about others.

Insofar as it can be related to toleration, compassion counts as a political emotion. Whereas toleration emphasizes one's own suffering in putting up with