cations" (p. 143). Chapter 9 explores the historiography of Weigel's unfinished work, *Vierlei Auslegung von der Schöpfung*, and Chapter 10 concludes with a discussion and recapitulation of how Weigel's works fit into the German intellectual tradition.

Throughout this excellent study, Weeks reminds us that Weigel represents an important stage in the German intellectual tradition of toleration and validation of differing points of view. In the tradition of Eckhart, Cusanus, and Franck, who preceded him, and of Jacob Boehme, who followed him, Weigel struggled mightily in the wake of the Reformation to establish a foundation for spiritual toleration that was inclusive rather than divisive. The points that Weeks addresses are important ones. This book is a welcome and timely contribution to current Reformation history.

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Anthony Grafton. *Cardano's Cosmos: The Worlds and Works of a Renaissance Astrologer*. Cambridge, MA: Harvard University Press, 1999. Pp. xii, 284.

In Milan, early in the sixteenth century, as a boy of twelve was setting off a firework, a piece of the paper casing struck the wife of a respectable musician, and the boy's face was slapped. More than sixty years later, when the boy, Girolamo Cardano, was near his death, the incident went down in his autobiography, *De vita propria*, in a chapter devoted to humiliating experiences; in other chapters, he confided his favourite veal recipe to his readers, reflected on the execution of his beloved elder son, listed the names of seventy-three writers who had cited his works, and told the story of the spirit who appeared to him in 1572 (looking like a farmer, of all things), spoke the wholly enigmatic words *te sin casa*, then vanished.

One of the problems which faces a scholar trying to make sense of Cardano's life now is the documented richness which this list suggests. He is, thanks to the autobiography and other personal writings, knowable in formidable detail. Moreover, he wrote so much — the standard edition of his works runs to ten folio volumes and is nevertheless incomplete — and did so much: he practised medicine, to international acclaim, and was also one of the leading astrologers of his day, as well as an important mathematician, a moral philosopher, an encyclopedist, and at one time something very like a professional chess player. A full treatment of this life would be a Gormenghast of the biographer's art — enormous, rambling, and even nightmarish. The same, of course, is true of a number of the other great early modern polymaths: their lives are immensely interesting, but too full of varied intellectual achievement to be made into readable unified narratives. A series of recent studies have exemplified an elegant way out of this dilemma. They examine one part of the achievement of a major intellectual figure, setting it in a rich biographical context and contextualizing it with particular attention to the histories

of reading and writing of which it is a part, thus shedding light inward, on the life of the subject, and outward, on the wider history of the chosen discipline. Thus William Sherman has discussed John Dee as “intelligencer” in *John Dee: The Politics of Reading and Writing in the English Renaissance* (Amherst: University of Massachusetts Press, 1995); Ann Blair has focussed on Bodin’s natural philosophy in *The Theater of Nature: Jean Bodin and Renaissance Science* (Princeton, NJ: Princeton University Press, 1997); and Nancy G. Siraisi has examined Cardano as medical man in *The Clock and the Mirror: Girolamo Cardano and Renaissance Medicine* (Princeton, NJ: Princeton University Press, 1997). Anthony Grafton, whose contribution is acknowledged in all three of these books, is no stranger to the comprehensive, multi-discipline biography of polymaths, as is shown by the two magnificent, daunting volumes of his *Joseph Scaliger: A Study in the History of Classical Scholarship* (Oxford: Clarendon Press, 1983–93). He has now written a much more accessible single-discipline biographical study of Cardano as astrologer, which will surely give great pleasure to many non-specialist readers, and should unquestionably be read by any person with an interest in early modern thought.

Grafton begins with the image of the aged Cardano, visited by a seeker after “ruins and celebrities,” who observed that his wall-hangings bore the motto “TEMPVS MEA POSSESSIO.” How, Grafton asks, did Cardano seek to gain power over time? How, in particular, did astrology help him to do this? The answer to this overarching question is that examining the supposed influence of the celestial bodies on the sublunary world allowed Cardano to make sense of the surprisingness and the pain of his life and of human history, from that humiliating early venture into pyrotechnics to the future of the Ottoman Empire. He could see all events as reflexes of the great, beautiful, serene dance of the heavens. The reader of *Cardano’s Cosmos* is given a masterly short introduction to this dance, and to the history of its attempted decoding by astrologers. Then Cardano himself is presented at the beginning of his career, trying unsuccessfully to make a name with a little printed prognostication, then doing better for himself with the first printed collection ever of what are called genitures, predictions about a given life based on the state of the heavens at the moment of the subject’s birth. The account of his life as an astrologer continues in roughly chronological order, with discussions of his controversies with other astrologers, his work as an astrological consultant for distinguished patrons, and his commentary on the *Tetrabiblos* of Ptolemy. The study concludes with chapters on the relationship between astrology and other ways of examining the future, such as the study of dreams (Cardano’s were exceptionally interesting), and on the autobiography; a coda sums up the claim, which has informed the whole book, that “the astrologers and their clients used *rational* means [emphasis added] to explore their worlds and their selves, and to master them.”

This material is the product of long and deeply learned research, both in early modern astrological manuscripts and printed books and in a vast range of secondary literature, with a particular familiarity with German-language sources. Its

authority is unquestionable (but *dormitat Homerus*: the Democritus Junior whom John Aubrey supposed to have hanged himself was Robert Burton, not Thomas Browne). What is distinctive about *Cardano's Cosmos* is not simply its authority, though, but the brilliance with which Grafton transforms his extensive and highly technical researches into a narrative which is both economically written and extraordinarily lively and engrossing. The experience of reading this book is that of being in the hands of a great teacher; every sentence flashes with intellectual energy and excitement. The urge to go off and work on Cardano is almost irresistible. Even when an isolated image in the prose does not command immediate assent — can one cower in the middle of a whirlpool? is astrology *really* like a glacier? — the pace, and the reader's pleasure, never slacken, and a number of passages of the highest artistry (the close of Chapter 9 is a good example) remind one that this book is not only a masterpiece of research but a masterpiece of English prose.

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Alina A. Payne. *The Architectural Treatise of the Italian Renaissance: Architectural Invention, Ornament, and Literary Culture*. New York: Cambridge University Press, 1999. Pp. xv, 343 + 88 ills.

Twentieth-century studies of Renaissance building theory have traditionally suffered from a certain modernist disdain for architectural ornament. Rudolf Wittkower's canonical *Architectural Principles in the Age of Humanism* (London: Warburg Institute, University of London, 1949) — cited at times in connection with the minimalist ideology of Loos, Le Corbusier, and Mies van der Rohe — is probably the best known example. Emphasizing the centrality of abstract formal relationships within Serlio's and Palladio's writings on churches and villas, Wittkower saw mathematical harmony and geometric proportion as the hallmarks of Renaissance architecture. In his avowedly anti-sentimentalist analysis, architectural meaning resided less in the experience of decorative encrustations than in the apprehension of Neoplatonist symbolic values, inherent in coolly rational arrangements of columns, pilasters, and oculi (Bramante's *Tempietto*, for example). Ornament, in such a narrative, was of course important (Quattrocento and Cinquecento distillations of Vitruvius made this clear), but for Wittkower it remained oddly "subjective," almost too irrational, expressionist, and inessential to express transcendent values. "Ornament is something added and fastened on, rather than proper and innate," he claimed, glossing Leon Battista Alberti's 1485 *Ten Books*; "Beauty is thus . . . a harmony inherent in the building, a harmony which . . . does not result from personal fancy, but from objective reasoning" (*Architectural Principles*, p. 29).

Wittkower's modernist interest in "absolute values" is both the precedent and the foil to Alina Payne's new study of Italian architectural treatises. Interested, she claims, in the role a "body consciousness" and an "increasing humanization of architectural detail" (p. 8) played in Renaissance discourse about buildings, Payne