

Preface: “Other Planets Which Appeare Not”

One of the first people who looked at the planets with a telescope was Thomas Harriot (1560–1621). He began observing in 1609 at Syon House, west of London. It was the residence of Henry Percy, ninth Earl of Northumberland (1564–1632), who gathered around him a group of intellectuals who had a shared interest in Copernicanism. Harriot was a keen reader of the Italian Dominican friar Giordano Bruno (1548–1600; Fig. 1), who suggested the existence of other planets in the fourth book of his 1591 work *De immenso*:

As you have seen these planets move round the sun, do not believe it impossible to discover others, although your sight cannot of itself detect them, nor can those bodies send out light reflected to us for three reasons: they possess no light of their own; they are tiny and far from us.

Fig. 1 Giordano Bruno



As a description of the asteroids, this could scarcely be bettered, and it was written 4 years before Johannes Kepler (1571–1630) posited the existence of a planet between Mars and Jupiter. For the fascinating link between the Northumberland group and Kepler, see Nicolson (1956). In 1610, Harriot was in communication with Sir William Lower (1570–1615), another member of the Northumberland group. "I am wholly possessed with Astronomical speculations and desires," Lower writes on February 6, 1610.

Lower wrote Harriot again on June 21, giving us the precise knowledge that Harriot himself was in agreement with Bruno (Gatti, 1989: 56). "Having heard you say often as much," Lower speculates to Harriot about the possibility of a "fixed infinite" number of stars between the stars and Saturn. Setting his gaze closer to home, Lower then repeats Harriot's idea derived from Bruno: "What if aboute Saturn, Jupiter, Mars, etc. ther move other planets which also appeare not." (British Library Add. MS 6789, fol. 425 V.) Galileo's fresh discovery of four "planets" orbiting Jupiter offered supreme confirmation of Lower's (and Harriot's) previously held views on the infinite nature of the cosmos: "probable experience hath made good" Lower wrote with evident satisfaction. Two centuries later, four more planets would be found that would extend their cosmos even more: Ceres by Giuseppe Piazzi (1746–1826) and Niccolò Cacciatores (1770–1841), Pallas and Vesta by Wilhelm Olbers (1758–1840), and Juno by Karl Harding (1765–1834). The story of Ceres and Pallas was told in the three previous books in this series. The reader is referred to these for all of the background leading up to this book, which tells the story of Juno. In particular, the various steps in the development of Bode's Law were covered in Chap. 1 of *The Discovery of the First Asteroid, Ceres*.

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Cunningham, C.J.

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