

---

*Hermes and the Telescope: In the Crucible of Galileo's Life-World* by Paolo Palmieri

New York/Berlin: Peter Lang, 2016. History and Philosophy of Science: Heresy, Crossroads and Intersections 2. Pp. xxiv + 234. ISBN 978-1-4331-3140-0. Cloth \$86.95, €72.50

---

*Reviewed by*  
Eileen Reeves  
Princeton University  
ereeves@Princeton.edu

Paolo Palmieri's *Hermes and the Telescope: In the Crucible of Galileo's Life-World* is the latest in a scholarly series of portraits of the Italian astronomer. For close to four decades, that image has undergone dramatic adjustment as historians of science have sought to refine or to reject the rather straightforward account offered in 1978 in Stillman Drake's *Galileo at Work*: we have seen Galileo as heretic, as courtier, as father figure, as entrepreneur, as artist, as engineer, as humanist, and as friend.<sup>1</sup> He will doubtless appear in other guises, but Palmieri's depiction is and will remain among the most puzzling and disquieting images in this gallery. This impression is to some degree an artifact of hermeticism itself—an elusive and eclectic set of doctrines of contested age and origin, designed for enlightened adepts—and elsewhere a corollary of the particular rhetorical approaches that Palmieri has adopted in his study.

Amid the overall strangeness of *Hermes and the Telescope*, readers will recognize arguments that are familiar, if not always explicitly acknowledged, in recent historiography of science. Palmieri's emphasis on the distortions in the traditional image of Galileo as the emblem of a positivistic, rational, beneficent, and always evolving science [3–15], the legacy bequeathed to us in the *Opere* and in dozens of related articles by Antonio Favaro (1847–1922), tallies with both general and specific arguments advanced by Massimo Buciantini [1995], Michele Camerota and Giuseppe Castagnetti [2001], and Mario Biagioli [2010], among others. His insistence on the ironic and parodic strains

---

<sup>1</sup> See, e.g., Redondi 1983, Biagioli 1993, Sobel 1999, Biagioli 2006, Bredekamp 2007, Valleriani 2010, Heilbron 2010, Wootton 2010, Hall 2013, and Wilding 2014.

that emerge in many of the astronomer's writings [76–85, 199–203] complements John Heilbron's recent biographical portrait of a scientist given to satirical statements [2010], while his gesture to a wavering religiosity [31, 69–71, 121–122] draws on David Wootton's discussion of matters of faith early and late in Galileo's life [2010, 244–247]. And Palmieri's commendable interest in Galileo's bookish side, both as a consumer and as a producer of literary texts,<sup>2</sup> finds elaboration in Crystal Hall's *Galileo's Reading* [2013] and in her 'Galileo's Library Reconsidered' [2015], as well as in the very pronounced turn by historians of early modern science to the resources of imaginative literature [Reeves 2015, 20–22].

That said, Palmieri's Galileo is for the most part a stranger. Given that *Hermes and the Telescope* is something of a manifesto emphasizing both methodological differences and pedagogical consequences, it is no accident that the astronomer emerges as a cypher, that we scarcely know him better at the monograph's end than we do at the outset, and that much of the discussion involves material judged too fragmentary, too obscure, or too much at odds with the conventional profile of the scientific figure. Rather than relying upon the usual chronological approach with its expected narrative arc and the cumulative force of traumas and triumphs, Palmieri has structured his work as a series of *canovacci*, the general plot-lines typical of the *commedia dell' arte* [xiv]. Such a strategy is somewhat disorienting for any reader accustomed to the naturalized units of chapters in a life story. The advantage of the *canovacci*, however, is that the genre foregrounds the experimental nature of this monograph, tallies with Palmieri's interest in improvisation as a dynamic compositional element in and beyond Galileo's work, and allows him the freedom to address particular ideas, seemingly disguised, as they emerge and disappear over decades in the astronomer's writing and in other, better-established Hermetic texts.

The *canovacci*, then, are 'Myth', 'Hermes', 'Luna', 'Sol', 'Jove', 'Heaven', and 'Hospitality'. The first of these persuasively presents Favaro's phrase 'Codice Galileiano', normally translated by the workmanlike phrase 'Galileian Manuscripts', as a 'Galileian Code', thus insisting on the myth-making criteria used to identify, to classify, and often to suppress the avalanche of documents

<sup>2</sup> See pp. 21–24, 46–52, 69–70, 83–84, 98–102, 138–140, 148–151, 170–173, 185–198, 204–207.

associated with the astronomer [13–15]. Somewhat less cogently, it describes Galileo’s ‘hermetic labors’, now largely obscured by this late 19th-century construction of science as a ‘search for immortality’ and for ‘personal healing’ [4, 30]. In contrast to other biographical accounts, in this study, Galileo’s malaise derives neither from physical ailments nor from familial traumas nor from the impediments of old age but from the vertiginous reality revealed by the recently invented telescope [19–20]. His cultivation of ‘poetic madness’ is a recognition of the transformative and sacramental quality of baroque lyric [23–24, 28–29]; the misunderstood and maligned emptiness of *concettismo* figures, in Palmieri’s analysis, as an aesthetic response to what Blaise Pascal would later identify as the frightening eternal silence of infinite space [15–20].

‘Hermes’ is devoted to the interplay of heresy, libertinism, and hermeticism, particularly in their reliance on *ingenium* or inventiveness as an interpretive strategy, and in their postures of jocose resistance to the spiritual, social, and intellectual conventions espoused by a powerful and amorphous ‘them’. Here, Palmieri insists upon the generative force of word-play, identifying, for example, in works such as the *Dialogue concerning the Two Chief World Systems* striking verbal homologies in religious and scientific faith, and in their three-day rituals of purification, mental preparation, and eventual confirmation of largely invisible phenomena [60–63, 72–73, 80–82]. In this reading, word-play functions as a kind of elusive and decorative double to Galileo’s postils or marginalia, those fierce, often funny, and still more often obscene responses to his rivals’ works, partially preserved for us by Favaro in the *Opere*. Further and more vigorous word-play allows Palmieri to suture Galileo’s use of the term ‘intoppo’—a literal or figurative obstacle—within the context of *The Two New Sciences* to a group portrait of ‘them’, the monstrous mob that temporarily blocks the progress of Ruggiero, the hero of the astronomer’s favorite romance epic, *Orlando Furioso* [94–102].

‘Luna’ has as its focus less the Moon than Galileo in his guise as Mercurius, a name that emerged in the wake of the first published images of telescopic phenomena. Palmieri’s emphasis here falls not on this title as an ornate, classical counterpart to the somewhat more generic *Nuncius* but rather on the elaborate mythographies undertaken by Galileo’s disciples and antagonists in the face of the telescope’s dramatic disclosures. As he notes, Galileo and this band of overbearing humanists sometimes appear unaware of, or indifferent to, the ungovernable generative force of the metaphors that they

deployed when discussing features such as the Moon's ashen light [117]. Drawing on the sometime comparison of the glowing lunar surface shortly before and after conjunction to the newish phenomenon of the phosphorescent 'Bologna stone', the latter securely in the ambit of alchemy, Palmieri accentuates the language of transmutation in the astronomical debate between Galileo and the alarmingly prolific polymath Fortunio Liceti [113–119]. Such suggestions, to the extent that they involve Galileo as well as Liceti, contravene his celebrated and explicit dismissal of alchemy and, above all its linguistic subterfuges, in the *Dialogue*. There, Sagredo mocks those practitioners' commentaries on

the ancient poets, discovering most important mysteries hidden beneath their stories, and what the Moon's amours might mean, as well as her descent to Earth for Endymion, and her rage against Actaeon, and the significance of Jove's conversion into a shower of gold, or a fiery flame, and how many great secrets of the art there are in that interpreter Mercury, in those abductions of Pluto, in those golden boughs. [Favaro 1890–1909, 7.136 (translation mine)]

'Sol' incorporates both Galileo's brilliant but ill-advised interpretation of Joshua's command—'Sun, stand thou still upon Gibeon'—as well as the astronomer's depiction of the solar body as the heart, or primary and central organ, of the cosmos. 'Jove', by contrast, returns to the immediate aftermath of the *Sidereus Nuncius*, focusing on an Italian poem written by the court poet Andrea Salvadori and revised by Galileo himself that was devoted to the familiar theme of the gigantomachy and intended for the unrealized vernacular edition of that first treatise on the telescope. To some extent, this is familiar territory for historians of science, many of whom have commented on the scepticism with which Galileo's claims about Jupiter's satellites were first met and on his anxious, defensive, and even despondent reaction. The common suggestion that the so-called Medici stars were illusions or hallucinations morphed easily, even among Galileo's supporters, into the conflation of astronomical observation with alcohol: in Niccolò Aggiunti's *Creteum mihi das nectar*, for instance, two glasses transport you to the stars; four, far beyond them. [Vaccalluzzo 1910, 121].

Palmieri, for his part, refers somewhat enigmatically to Galileo's 'poetic madness', to the shared functions of the telescope and the alchemical retort, and to his status as an 'adept'. [150] It is worth noting in this context that an astronomer whose early acceptance of the satellites pushed him to claim priority over Galileo—the German Simon Mayr—had himself portrayed in

1614 with a telescope, sector, and alchemical retort; but a robust connection between Galileo's observational activities and the pursuit of alchemy remains elusive [Marius 1614, 19th unnumbered page]. And while Galileo and his confederates mocked one of his detractors, the strident Bohemian Martin Horky, by calling him *Orcus* or *Ogre*, a monstrous figure of the Underworld [Favaro 1890–1909, 10.411, 422, 455], Palmieri presents this antagonist as a roaring ventriloquist of newly awakened social anxieties and, in time, a sacrificial victim of sorts: 'without fear of fathers and teachers, the beast spoke publicly through the voice of a young student' [153].

'Heaven' departs from the moody, atavistic aura of the preceding *canovacci* and focuses less on fears unleashed by the new cosmology and more on the performative and occasionally ironizing tendencies of Galileo's work, particularly in connection with his attention to its evolving metaphysical presuppositions. Palmieri convincingly portrays a moment in the *Dialogue* in which the soft target Simplicio, stumbling more than usual, undergoes a bout of otherwise unmotivated amnesia as a parody of the Platonic theory of reminiscence, where the unschooled individual's innate, obscured geometrical knowledge is meant to emerge with the help of a careful interlocutor [176–203].

Less convincing, and less illuminating than his superb discussion of the extrusion-effect in an article of 2008, is Palmieri's association of Galileo's discursive and diagrammatic dispatch of that conventional objection to a rapidly whirling Earth—the notion that rocks, animals, buildings, and entire cities would be hurled into space—with the hyperbolic claims of a contemporary literary character, Capitano Spavento [Palmieri 2008; 204–207; Favaro 1890–1909 7.158, 214]. To the extent that a fictional creation 'knows' anything, Captain Fright does appear aware of the world in which Galileo moved, if not of the astronomer himself. The first edition of the dialogic *Bravure del Capitano Spavento*, approved in Padua and published in Venice, refers to placards posted on the Moon announcing the Captain's upcoming duel with Death and 'glasses for seeing far' to observe the announcement from Earth. Thus, more than a year before the telescope emerged in the Netherlands and more than two years before Galileo demonstrated the terrestrial use of the instrument to members of the Venetian Senate, this work joins others, sometimes more serious in tenor, that gesture to pre-telescopic devices [Andreini 1607, 252]. But this and other Frightful tendencies—the Captain's quarrel with that 'filthy filosofer' Aristotle and his desire to reconfigure the cosmos

by slapping about the Moon, Mercury, Venus, the Sun, Mars, Jupiter and Saturn, and to tell the Primum Mobile to stop turning the starry sphere and to stick to its own business—however close to certain of Galileo’s rhetorical postures, seem to me distant in tenor from the slow and somewhat abstract manner in which the astronomer explained away the picturesque fantasy of the extrusion-effect [Andreini 1607, 355, 401].

‘Hospitality’, the concluding section of *Hermes and the Telescope*, concerns the modern-day pedagogical environment in which Palmieri has developed this monograph.

Among the strengths of this work are its attention to dismissed or discrepant episodes within the Galilean canon, its emphasis on early modern pluri-lingualism, and the variegated tenor of the texts at our disposal; and its effort to integrate empirical claims, philosophical arguments, spiritual preoccupations, and literary works in its framework. Its insistence both on the intractable anxiety provoked by Galileo’s early telescopic observations and on the energetic pleasure of his satirical arguments recalibrates, in effect, the arc of most biographical accounts, where the years 1609–1613 figure as a frenetic period of abundant discovery and bold disclosure, and the next three decades as a slow slide into illness, intellectual frustration and doubt, blindness, grief, and death. What substantially undercuts the force of these contributions is at once the elusive nature of hermeticism and the relative unfamiliarity of Anglophone scholars with the ‘life-world’ or *Lebenswelt* to which the work so often alludes and with the Vichian precedents of that concept.

It seems to me entirely possible that as historians of science we have underestimated the psychosocial impact of early telescopic discoveries, claims, speculations, and images, or that we have recoded them as incidents in larger dramas concerning court culture, confessional strife, or professional status. But if we are to retreat from the inevitable impression of the early modern cosmos as an anodyne antecedent of what W. H. Auden would call

a clockwork spectacle...  
impressive in a slightly boring  
Eighteenth-century way,

and if we are to take seriously the emphatic emptiness of *concettismo*, the often overwrought pitch of the poems, letters, and treatises responding to the *Sidereus Nuncius* and the intellectual integrity of hermetic writing, I believe that we need a clearer and more rigorous methodology than the one

sketched here. We need, too, a more forceful indication of the life-world under scrutiny: at times, it seems that the rhetorical postures examined in *Hermes and the Telescope*, particularly ungoverned word-play and parody, could be as easily ascribed to Palmieri as to his early modern protagonists.

If Palmieri's general suggestion is that we approach the many stray texts and unexamined *aporiae* within the Galilean ambit as part of the scientist's hermetic tendencies, we will require more cogent reasons for abandoning the less personal, more context-dependent interpretations that we generally offer. Let me conclude with one such instance. Palmieri notes that around 1640 the blind astronomer responded to the Florentine poet Antonio Malatesti's published collection of riddling sonnets with one of his own [29–30]. Galileo's 'enigma', like its precedents, depicts an object through a set of clues voiced in the first person:

I am a monster, stranger and more misshapen  
 Than the harpy, siren, or chimera;  
 There's no beast on land, air, or water  
 With limbs so mismatched as mine.  
 No single part is shaped like another,  
 And some are black, others white.  
 I've often got a pack of hunters behind me:  
 They trace out the tracks of my feet.  
 I am at home in complete darkness,  
 And if I pass from shadows to bright light,  
 Soon the life-force vanishes from me,  
 As does a dream at the break of day;  
 My disjointed members slacken,  
 And I lose my being, my liveliness, my name.  
 [Favaro 1890–1909, 9.277 (translation mine)]

It seems clear to me that the object in question can only be a telescope. Galileo's composition, in fact, is a variant on the fifth in Malatesti's collection, which had compared the gold-tooled optical instrument to a gilded serpent with strong sight but mismatched eyes, issuing from the city rather than the country, growing and contracting at will, not toxic but Tuscan, and so forth [Malatesti 1640, 19]. Somewhat less fantastically, Galileo gestured to the dissimilar shapes of the telescope's draw-tubes and its convex and concave lenses, to its composition of colorless (rather than green) glass [Neri 1612, 9, 10, 12] and the blackened interior of the tubes, to the 'feet' on which the instrument often stood [Favaro 1890–1909, 12.113], to its diurnal

deployment by huntsmen, and to the way in which the image vanished when the apparatus was disassembled. While there is surely a generous measure of pathos in the sightless state of the aged and ailing inventor, the enigma seems to me far from tragic, and more distant still from what Palmieri describes as a disorienting meditation on death, on the loss of individual identity, on the dream-like illusion of rational knowledge, on the soul's apparent demise, and on the 'self's confrontation with the shadows of the unconscious' [29–32]. Show me the melancholy, show me the mourning.

## BIBLIOGRAPHY

- Andreini, F. 1607. *Le bravure del Capitano Spavento*. Venice.
- Biagioli, M. 1993. *Galileo Courtier*. Chicago, IL.
- 2006. *Galileo's Instruments of Credit*. Chicago, IL.
- 2010. 'La Grande Bugia di Galileo'. *La Stampa*. 1432:25.
- Bredenkamp, H. 2007. *Galilei der Künstler. Der Mond, die Sonne, die Hand*. Berlin.
- Bucciantini, M. 1995. 'Antonio Favaro'. *Dizionario biografico degli italiani* 45:441–444.
- Camerota, M. and Castagnetti, G. 2001. 'Antonio Favaro and the *Edizione Nazionale* of Galileo's Works'. *Science in Context*. 14:357–361.
- Drake, S. 1978. *Galileo at Work: His Scientific Biography*. Chicago, IL.
- Favaro, A. 1890–1909. *Le opere di Galileo Galilei*. Florence.
- Hall, Crystal. 2013. *Galileo's Reading*. Cambridge, UK.
- 2015. 'Galileo's Library Reconsidered.' *Galilaeana* 12:29–82.
- Heilbron, J. 2010. *Galileo*. Oxford, UK.
- Malatesti, A. 1640. *La sfinge, enimmi*. Venice.
- Marius, S. 1614. *Mundus Iovialis Anno M.DC.IX. Detectus Ope Perspicilli Belgici*. Nuremberg.
- Neri, A. 1612 *L'arte vetraria distinta in libri sette*. Florence.

- Palmieri, P. 2008. 'Galilaeus deceptus non minimè deceptit. A Reappraisal of a Counter-Argument in the *Dialogo* to the Extrusion Effect of a Rotating Earth'. *Journal for History of Astronomy* 39:425–452.
- Redondi, P. 1983. *Galileo eretico*. Turin.
- Reeves, E. 2015. 'Galileo, Oracle'. *I Tatti Studies in the Italian Renaissance* 18:7–22.
- Sobel, D. 1999. *Galileo's Daughter: A Historical Memoir of Science, Faith, and Love*. New York.
- Vaccalluzzo, N. 1910. *Galileo Galilei nella poesia del suo secolo*. Milan.
- Valleriani, M. 2010. *Galileo Engineer*. Dordrecht.
- Wilding, N. 2014. *Galileo's Idol*. Chicago, IL.
- Wootton, D. 2010. *Galileo: Watcher of the Skies*. New Haven, CT.