



The cultural legacy of Galileo and the problematic concept of myth

Massimo Bucciantini (ed.): *The science and myth of Galileo between the seventeenth and the nineteenth centuries in Europe*. Florence: Olschki, 2021, ix + 502 pp, 52 €

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The aftermath of Galileo's life and work is a phenomenon that has always been present in modern culture for the past four centuries, gaining nuances, importance, and relevance as time goes on. This ought to come as no surprise in light of the fact that his work included scientific achievements that were crucial to the rise of modern science; his life was a tragic one that made him the protagonist of an epoch-making conflict with the Catholic Inquisition; and his scientific achievements and Inquisition trial forced him to engage in methodological discussions to such a depth and extent that he has been rightly called the Socrates of methodology. Nor ought it come as a surprise that the aftermath itself, as distinct from his life and work, has recently attracted scholarly attention. The present work is a valuable addition to this literature.

The book consists of thirty chapters by different authors, each of which examines some aspect of the Galilean aftermath. The wealth of topics and their interdisciplinary ramifications are phenomenal and awe-inspiring.

In fact, the anthology reproduces the proceedings of a 2020 conference that was the conclusion of a three-year research project conducted by several scholars at five Italian universities and financially supported by an agency of the Italian government. It is worth noting that, except for the organizer and editor Massimo Bucciantini, the anthology contains no essays by scholars who have made previous major (book-length) contributions to this topic. Assuming that this exclusion was neither accidental nor an oversight, it could be interpreted as intended to show that, by and large, the Galilean aftermath can attract the efforts of scholars who do not have a vested interest in it. Thus, the cultural significance of the phenomenon is thereby enhanced.

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Two issues are discussed most frequently. One is, unsurprisingly, the relationship between science and religion, and whether Galileo's trial illustrates their incompatibility. The other frequent issue is the contrast between Italian and foreign views of Galileo: Non-Italians tend to show less appreciation toward Galileo's scientific and cultural legacy, whereas Italians tend to regard him as a national hero, besides viewing him as mentioned above in the first paragraph.

To convey a flavor of the wealth of this anthology, I shall now mention some key points about some of the most informative and interesting essays. Regarding the history of science as such, Franco Giudice examines Newton's critique of Galileo's cosmogonic hypothesis attributed to Plato. This was the idea that the solar system originated as follows: God created all planets at some common distance from the sun, and let each fall in a straight line toward the sun with uniform acceleration until it reached a distance from the sun equivalent to the radius of its now-known heliocentric orbit; at that point, the planet's rectilinear accelerated motion was converted into uniform circular motion; thus, the closer a planet is to the sun, the longer was the time of its fall, and the faster its orbital speed. Newton argued that this cosmogony is inconsistent with Kepler's third law, and with his own law of gravitational force as inversely proportional to the square of the distance.

Regarding the history of iconography, Federico Tognoni examines the Galilean aftermath in Italy from the end of the seventeenth century to the end of the nineteenth. That is, he discusses the context, implications, and presuppositions of the many statues, busts, and medals of Galileo that were created and displayed in public places, museums, and private collections. The most curious one was the inclusion of Galileo's bust on the façade of the church of San Michele in Foro in the Tuscan city of Lucca. It is certainly strange to have Galileo included among saints and the like!

Regarding political history, Massimo Baioni examines the Galilean aftermath during the period of the Fascist regime in Italy (1922–1942). Generally speaking, the Fascist ideology viewed Galileo as a key representative of Italians as the "chosen people." The following passage is appropriately quoted by Baioni from a propagandist publication of the period:

We are the chosen people, who have dominated and been dominated the most, and who have been the most unfortunate in their greatness and the greatest in their misfortune; we are the people whose great genius enabled us to see God (Dante), to stop the Sun (Galileo), to enlarge the Earth (Columbus), to discover beauty, and to rediscover singing. (413).

It would certainly be difficult to find anything that would rival this particular collector's piece!

Regarding the history of theater, three essays focus on three distinct plays about Galileo. Isabelle Pantin discusses the play written by the French socialist, anarchist, and radical thinker Pierre-Joseph Proudhon (1809–1865); he portrays Galileo as struggling with issues characteristic of his own social philosophy, and as doing so in conversations with two intellectual opponents: One is

(unsurprisingly) the Inquisition's prosecutor; the other is (most intriguingly!) Galileo's own physicist disciple Evangelista Torricelli. Sara Trovalusci discusses the play by the French poet and dramatist François Ponsard (1814–1867); Galileo is portrayed as a loving family man whose abjuration results from his love for his wife and daughter, who love him in return and would feel devastated if he were to be executed! Alessandra Zangrandi discusses a play by the Italian poet and patriot Ippolito Nievo (1831–1861); it covers only the period 1630–1637 and depicts the attempts by several friends to convince Galileo to escape from prison; one of these is Tommaso Campanella, who tries to convince Galileo to accept the hospitality and protection of the King of France (as Campanella ended up doing himself in real life!); but Galileo rejects this idea because he thinks that in France he would be unable to continue his scientific work, whereas by abjuring he would be able to go back home to Florence where he had all his papers and equipment.

Although I have studied Bertolt Brecht's twentieth-century play on Galileo, these earlier ones were unknown to me. They raise many important issues—aesthetic, historical, and cultural. I have no doubt now that they deserve further study and would require at least one book-length project covering the whole period of the aftermath and including other plays.

Finally, despite its many merits, the book has a shortcoming that cannot be ignored. The difficulty becomes apparent already from the book's title with its talk of "myth," in the singular. It is not at all clear what is the myth of Galileo to which the title refers. The editor's Preface at one point makes it sound as if "the" myth is the idea that "Galileo belonged to a 'pantheon' of martyrs of freedom ... associated to Giordano Bruno as a symbol of courage and resistance against intolerance" (vii). However, if this is taken literally as suggesting that Galileo was executed, then no sane person believes it; and if interpreted to mean that Galileo was a fighter for freedom of thought, then it is essentially true; thus, neither interpretation yields a myth since (by my understanding, according to a common definition) a myth must be both essentially false and widely believed. The Preface also states that participants were given five questions, one of which asked "How many myths and symbols did arise and develop from his death to the end of the nineteenth century?" (viii). However, more than two-thirds of the contributors completely ignore this question and do not say a word about myth(s); the few who do talk about myth(s) basically continue the misunderstanding or misconception.

For example, one of them at one point speaks of "the myth of [Galileo as] the founder of modern science, combining critical attitude and accurate observations with mathematical reasons and hypothesis-driven experiments" (351). However, this claim is essentially correct, and so should not be labeled a myth. Another contributor tells us that in an 1834 book on physiology and theology published in London by Peter Mark Roget, a new "myth" emerged: "when interrogated by the Inquisition as to his belief in a Supreme Being, [Galileo] replied, pointing to a straw on the floor of his dungeon, that from the structure of that object alone he could infer with certainty the existence of an intelligent Creator" (289). Unfortunately, this story (however fanciful and groundless) should not be regarded as a myth because belief in it was never widespread.

This does not mean that the Galilean aftermath did not generate myths, but rather that more clarity is needed concerning the concept of myth. Indeed, as I have argued elsewhere, good examples of Galilean myths are: that he was imprisoned as a result of his trial; that he was tortured during the trial; that he was condemned because he was a bad theologian, not because he was a good astronomer; that with the telescope he was able to see and prove the earth's motion; and that (in 1979–1992) he was rehabilitated by Pope John Paul II.

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