# PEIRESC AND CENSORSHIP: THE INQUISITION AND THE NEW SCIENCE, 1610-1637

BY

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Nicolas-Claude Fabri de Peiresc (1580-1637) worked to transform ideas about natural philosophy by communicating information, patronizing research, and demonstrating the utility of scientific investigations. Although he did not achieve the status of contemporaries like Galileo and Kepler, he made significant contributions. He stressed practical applications of telescopic observations, developed a research program, and used persuasive strategies to ensure compliance for astronomical work. He did not want these efforts, some of which held implications for the traditional world view, to be obstructed by the Roman Catholic Church, and he actively involved the Church in projects requiring telescopic observations at the time of Galileo's sentencing. Peiresc fully understood the need to insulate research from the external controls of the Church and state. At the same time he needed the authority and patronage of these groups to carry out many of his investigations.[1]

## Purpose

Recent studies[2] have suggested that the contributions of Peiresc as an innovator and organizer of science were embellished by his contemporaries and later historians. But even though Peiresc did not publish any

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[1]For related articles, see those by Armand Beaulieu, "Les réactions des savants français du début du xvii siècle devant l'héliocentrisme de Galilée," *Convegno internazionale di studi galileiani* (Florence, 1984), pp. 373-382; John L. Russell, S.J., "Catholic Astronomers and the Copernican System after the Condemnation of Galileo," *Annals of Science*, 46 (1980), 365-386; Lisa T. Sarasohn, "French Reaction to the Condemnation of Galileo, 1632-1642," *Catholic Historical Review*, 74 (1988), 34-54.

[2]Gregory Matthew Adkins, "Excavating the 'Shipwreck of Antiquity': Nicolas-Claude Fabri de Peiresc and the Scholarly Tradition in France from the Seventeenth through Nineteenth Centuries" (Thesis, University of Florida, May, 1997). See also Robert A. Hatch,

scientific works and his investigations often lacked synthesis,[3] he left a "legacy" of correspondence, an estimated 10,000 letters, of which half are extant.[4] Approximately 3,200 of these exchanges have been published,[5] most of which were sent to Paris and Rome, where correspondents likely had ties with the crown and the Church.[6] These individuals kept Peiresc informed of policy and official views toward the New Science of observation and inquiry, and they often helped organize observation stations for work on longitude.[7] Peiresc's central position in correspondence networks enabled him to manage a vast information retrieval system.

Past research has focused on Peiresc's role in astronomical investigations[8] and his ability to patronize scholarship[9] and procure information and artifacts.[10] The purpose of this study is to examine Peiresc's role in transforming ideas and attitudes about the new astronomy in the context of censorship and the Inquisition. More specifically I will document

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"Peiresc as Correspondent: The Republic of Letters & the 'Geography of Ideas,'" *Science Unbound*, ed. Brian Dolan (Umeå, 1998), pp. 19–21.

[3]Yvette Conry, "Peiresc et l'ordre des 'portraits,'" *Peiresc ou la passion de connaître*, ed. Anne Reinbold (Paris, 1990), pp. 124–127.

[4]See Hatch, *op. cit.*, pp. 19, 31–33, 36 n. 1. The publication of a working calendar of the Peiresc correspondence by Hatch is forthcoming.

[5]Bernard Rochot (ed.), *Pierre Gassendi: Lettres familières à François Luillier pendant l'hiver 1632–1633* (hereafter cited as *GL*) (Paris, 1944); Philippe Tamizey de Larroque (ed.), *Les Correspondants de Peiresc: Lettres inédites, publiées, et annotées* (hereafter cited as *PC*) (2 vols.; Paris, 1879–1897; repr., Geneva, 1972); Philippe Tamizey de Larroque (ed.), *Lettres de Peiresc* (hereafter cited as *PL*) (7 vols.; Paris, 1888–1898); Paul Tannery, Cornelis de Waard, and Armand Beaulieu (eds.), *Correspondance du P. Mersenne* (hereafter cited as *MC*) (16 vols.; Paris, 1932–1986); Apollinaire de Valence, *Correspondance de Peiresc avec plusieurs missionnaires et religieux de l'ordre des capucins, 1631–1637* (hereafter cited as *PV*) (Paris, 1891); Phillip Wolfe (ed.), *Peiresc: Lettres à Naudé* (hereafter cited as *PN*) (Seattle, 1983).

[6]Hatch, *op. cit.*, p. 31.

[7]For articles on correspondence networks, see Paul Dibon, "Communication in the Respublica literaria of the 17th Century," *Res Publica Litterarum: Studies in the Classical Tradition*, 2 (1978), 46; *idem*, "Les échanges épistolaires dans l'Europe savante du xvii[e] siècle," *Revue de synthèse, III*, 81–82 (1976), 44.

[8]Seymour Chapin, "The Astronomical Activities of Nicolas-Claude Fabri de Peiresc," *Isis*, 48 (1957), 13–29; Pierre Costabel, "Peiresc et Wendelin: Les Satellites de Jupiter de Galilée à Newton," in *Peiresc ou la passion de connaître*, ed. Anne Reinbold (Paris, 1990), pp. 91–110. Jean Bernhardt, "Les activitiés scientifiques de Nicolas-Claude Fabri de Peiresc (1580–1637)," *Nouvelles de la république des lettres*, 2 (1981), 165–184.

[9]Lisa T. Sarasohn, "Nicolas-Claude Fabri de Peiresc and the Patronage of the New Science in the Seventeenth Century," *Isis*, 84 (1993), 70–90.

[10]Sydney H. Aufrère, *La Momie et la tempête: Nicolas-Claude Fabri de Peiresc et la curiosité égyptienne en Provence au début du xvii siècle* (Avignon, 1990).

his development and extension of communication networks to obtain specific astronomical information, his use of persuasive techniques to legitimize telescopic observations to various publics, and his strategies to ensure the involvement of the Catholic Church in these endeavors.

## Context

Prior to the publication of Copernicus' book *On Revolutions of Heavenly Orbs* in 1543, the texts of the scriptures, Aristotle, Plato, and Ptolemy provided the foundations for the conception of a finite and geocentric world. When Copernicus' lengthy text was circulated in clerical, literary, and university circles, it posed little threat to the traditional world view. The disclaimer in *ad lectorem* implied that Copernicus described a hypothetical system rather than a true system.[11] Things changed, however, with the publication of *The Sidereal Messenger* (1610), in which Galileo detailed his telescopic observations of the pitted lunar surface, the moons of Jupiter, and the stars of the Milky Way.[12] These observations were met with skepticism by some members of the emerging scientific community. Telescopes were rare and difficult to use; there was no optical theory to explain the operation, and lenses were thought to distort, not enhance the senses.[13] While astronomers like Kepler accepted Galileo's observations on the basis of his reputation, some Jesuit astronomers still attempted to reconcile data with church dogma.[14] In Rome Cardinal Robert Bellarmine asked Jesuit mathematicians to determine if these discoveries were "apparent and not real."[15] Until empirical proof could be furnished, the Church maintained that the Copernican world view should be classified as a hypothetical system.[16]

[11]Owen Gingerich, "The Censorship of Copernicus' De Revolutionibus," *Annali dell'istituto e museo di storia della scienza di Firenze*, 4 (1981), 46-47. See also Robert S. Westman, "The Copernicans and the Churches," *God and Nature*, eds. David C. Lindberg and Ronald L. Numbers (Berkeley, 1986), pp. 77-83.

[12]Albert Van Helden, "The Telescope in the Seventeenth Century," *Isis*, 64 (1974), 51 n. 75.

[13]Paul K. Feyerabend, "Problems in Empiricism, Part II," in *The Nature and Function of Scientific Theories: Essays in Contemporary Science and Philosophy*, ed. Robert G. Colodny (Pittsburgh, 1970), pp. 321-322.

[14]Johannes Kepler, *Kepler's Conversation with Galileo's Sidereal Messenger*, trans. with intro., concl., and notes by Edward Rosen (New York, 1965), pp. 12-13.

[15]Albert Van Helden, Conclusion, in Galileo Galilei, *The Sidereal Messenger*, trans. with intro., concl. and notes by Albert Van Helden (Chicago, 1989), p. 110.

[16]Galileo Galilei, *Discoveries and Opinions of Galileo*, trans., ed., and notes by Stillman Drake (Garden City, New Jersey, 1957), p. 203.

The Injunction of 1616 stated the Church's prohibition of teaching and support of the Copernican opinion in universities and Jesuit schools, and it placed Copernicus' book and a related text on the Index of Prohibited Books pending changes.[17] In 1633 Galileo was sentenced by the Inquisition, and his *Dialogue Concerning the Two Chief World Systems*, in which he claimed to prove the Earth's mobility, was condemned.

## Peiresc as Organizer and Communicator

Peiresc strengthened his ties to the French crown and the Roman Catholic Church in 1618 when he received the Abbacy of Guîtres in the diocese of Bordeaux *in commendam*. This conferral by the French king was recognized by Pope Paul V on January 5, 1619.[18] He was also in Paris at the time of the disgrace of Du Vair and experienced first hand the intrigues and duplicity of members of the royal entourage.[19] He returned to Aix in 1623. His responsibilities in the Parlement, which included presiding over civil and criminal cases and overseeing trade, public welfare, and civil defense, provided time for scholarly pursuits.[20] His positions as magistrate and clergyman ensured some protection from censors; his house in the South of France distanced him from the royal court. Peiresc once wrote that he felt it more prudent to be a "spectator rather than an actor" in politics.[21]

Within six months of the publication of *The Sidereal Messenger*, Peiresc began observing with a telescope in November, 1610. However, unlike Galileo, he did not present evidence that would refute the traditional world view. Instead he explored practical applications of these early discoveries, believing that the configuration of the satellites of Jupiter, as seen from different points on the globe, could provide a method of determining the difference in terrestrial longitude.

[17]Cardinal Maffeo Barberini, future Pope Urban VIII, disapproved of the Injunction. See Stillman Drake, Preface, in Galileo Galilei, *Dialogue Concerning the Two Chief World Systems*, trans. and notes by Stillman Drake (Berkeley, 1967), p. xxiii.

[18]Michel Feuillas, "Le catholicisme de Peiresc," in *Peiresc ou la passion*, ed. Reinbold, p. 66.

[19]See Jules-Marie Priou, "Magistrate et citoyen français," and Jean Clément, "Peiresc et le monastère de Guîtres," in *Les fioretti du quadricentenaire de Fabri de Peiresc*, ed. Jacques Ferrier (Avignon, 1988).

[20]André Bailly, *Défricheurs d'inconnu: Peiresc, Tournefort, Adanson, Saporta* (Aix-en-Provence, 1992), pp. 13–14.

[21]Peiresc to Bouchard, July 14, 1632, *PL*, IV, 74.

Peiresc established contact with more than 500 individuals scattered throughout Europe and the Levant to obtain information, generally seeking correspondents based on their geographical location and competence.[22] During his university studies in Italy (1599–1601), he established ties with major intellectual and ecclesiastical circles, and he sought tutoring under Galileo. He became the heir to the correspondence networks of the well-known humanist Giovanni Pinelli.[23] Before returning to France to assume his uncle's position in the Parlement of Aix-en-Provence in 1607, Peiresc traveled extensively in Europe, meeting scholars and visiting cabinets of curiosities, collections that were precursors to modern museums. A later stay in Paris when he served most of the time as secretary to Guillaume du Vair, the Keeper of the Seals from 1616 to 1621, introduced him to prestigious European groups, notably the circle of humanists and librarians Pierre and Jacques Dupuy, with whom he maintained a regular correspondence throughout his life. These Parisian and Roman contacts would be invaluable in extending communication networks and setting up observation stations for later work on longitude. This central role as intermediary in correspondence networks enabled him to send and receive news of scientific endeavors when the Church and state used censorship and the Inquisition to control publications. Generally letters traced a circuitous route between sender and receiver, passing first through intermediaries, who shared and copied their contents before sending these letters to their destinations. The complexity of these exchanges is shown below:

> I opened a letter that Mr. Diodati [Paris] sent you, which included one that Mr. Schickard [Tübingen] wrote to Bernegger [printer in Strasbourg], asking him to send you his observations of the eclipse. I showed it to Gaultier [Aix or Belgentier] and asked Garrat [Agarrat, Peiresc's secretary] to have him [Gaultier] compare it with your observation. I used the same channel to send a second letter from Galileo, the original of which I had sent to Diodati and the copy of another letter from Galileo that Rossi [Galileo's relative in Lyons] sent.[24]

The excerpt reveals how information traveled over a wide geographical area. Each of these individuals mentioned by Peiresc in turn forwarded copies in entirety or relevant portions to interested correspondents. Some letters were also read aloud at scholarly gatherings.

[22]Harcourt Brown, *Scientific Organizations in Seventeenth Century France* (New York, 1934), p. 5. René Pintard, *Le Libertinage érudit dans la première moitié du xvii^e siècle* (Paris, 1943; repr. Geneva, 1983), p. 88.

[23]Peiresc to Clusius, January 18, 1602, *PL*, VII, 941.

[24]Peiresc to Gassendi, April 19, 1635, *PL*, IV, 477.

Some correspondents such as the Swiss-born Protestant Elie Diodati or the Italian Paolo Gualdo relayed letters to Galileo. The Dupuys maintained ties to royal circles and European scholars. The priest Marin Mersenne, also in Paris, provided links to numerous correspondents, many of whom held high positions in the Church and crown. Peiresc's need for observational data for work on longitude forced him to seek correspondents spread over a large geographical area, extending from Europe to the Levant. His letters are filled with requests, asking that a telescope be given an able priest[25] and that observations of a lunar eclipse be made from the pyramids.[26]

Although maintaining contact with large circles of correspondents was time-consuming, Peiresc's friends portrayed him as jealously guarding this role, which enabled him to control information flow.[27] As an intermediary in these networks, he had the authority to forward, adapt, or withhold information.[28] Peiresc and his colleagues developed strategies to send information and evade censorship from clerical authorities. These strategies included self-censorship and the use of a powerful intermediary in main routes. He withheld news of Galileo's sentencing by the Inquisition and modified passages in Gassendi's letter to Galileo, who was under house arrest, to avoid problems with intercepted mail.[29] He also sent mail in care of powerful friends as a strategy to evade Inquisitors. Hence, he told Pierre Dupuy to address a packet to "Cardinal Barberini, and I will try to enclose something for him. Otherwise there will be difficulties in obtaining it from the Inquisition."[30]

Letters provide insight into the progress of scientific investigation, from inception to implementation. Peiresc and members of the scientific community eagerly awaited the publication of the *Dialogue*.[31] Letters also reveal shared assumptions and the shaping of scientific claims. In one letter, the cleric Pierre Gassendi described his vision of the sun as a "great furnace" at the center of the world, "making continual eruptions or smoke."[32] Although many priests might publish in support of

[25]Peiresc to Magy, [n.d.] 1633, *PV*, p. 6.

[26]Peiresc to Agathange de Vendôme, May 28, 1635, *PV*, p. 141.

[27]Gassendi to Luillier, November 9, 1632; December 4, 1632, *GL*, p. 19; December 29, 1632, *GL*, p. 47.

[28]See Peiresc to P. Dupuy, May 21, 1633, *PL*, II, 527; Peiresc to Luillier, January 8, 1633, *GL*, p. 57.

[29]Peiresc to Gassendi, February 1, 1634, *PL*, IV, 428–429.

[30]Peiresc to P. Dupuy, August 8, 1633, *PL*, II, 575–576.

[31]Pierre Gassendi, *Peiresc, 1580–1637: Vie de l'illustre Nicolas-Claude Fabri de Peiresc, Conseiller au parlement d'Aix*, trans. Roger Lassalle (Paris, 1992).

[32]Gassendi to Peiresc, February 26, 1632, *PL*, IV, 259.

the traditional world view, in private they did not reject the Copernican propositions. "They were pressured and forced to write in favor of the common assumptions of Aristotle; even Father [Christoph] Scheiner only upheld [these suppositions] from duty and obedience," Peiresc wrote.[33]

These exchanges demonstrate Peiresc's ability as moderator in disputes and his belief that the advance of knowledge could take place only through reasonable discussion, not conflict or censorship. He maintained that individuals had a duty to God to be tolerant of other beliefs.[34] He criticized published attacks on Galileo such as that orchestrated by the Jesuit Scheiner. When Mersenne planned to publish a discussion questioning the results of Galileo's experiments, Peiresc asked him to phrase his commentaries as "modest propositions" rather than as refutations and maintained the need for "deference" toward established astronomers such as Galileo.[35] By promoting an atmosphere of tolerance in these networks, Peiresc provided a forum for discussion.

Although he had ties with the crown through patronage, Peiresc solicited the help of the Catholic Church for work on longitude. Peiresc favored collaboration with the Church because of the skills offered by the priests and the desire to maintain a safe distance from the crown. At the time he organized observation stations to test his method of longitude, the French professor of mathematics Jean-Baptiste Morin, an Aristotelian and astrologer, unsuccessfully presented his lunar-distance method for determining longitude before a board of astronomers appointed by Cardinal Richelieu.[36] Missionary priests skilled in mathematics and astronomy would provide the needed quality observations. The participation of clergy might seem paradoxical in the light of the Galileo affair, but the controversy following the publication of the *Dialogue* could be attributed to Galileo's claim to prove the Earth's mobility and his caricature of the pope as the Aristotelian simpleton in this book. While dialogues offered a rhetorical strategy by which to communicate views with relative impunity, the casting of Simplicio as the spokesman for the Church made Galileo's position clear.[37]

Although the condemnation of the Copernican system had not been promulgated in France, the sentence did impose what has been termed

[33]Peiresc to Gassendi, September 6, 1633, *PL*, IV, 354.

[34]Peiresc to Holstenius, [June, 1637], *PL*, V, 486.

[35]Peiresc to Mersenne, December 2, 1635, *MC*, V, 520.

[36]See Mersenne to Peiresc, May 14, 1634, *MC*, IV, 135; Derek Howse, *Greenwich Time and the Discovery of the Longitude* (Oxford, 1980), pp. 6-8, 14.

[37]See Mersenne to Rivet, February 8, 1634, *MC*, IV, 37-38.

a "moral obligation" to uphold the church decision.[38] Peiresc sought ways to legitimize astronomical observations at the time of Galileo's sentencing by adapting arguments to specific audiences. He maintained that new evidence could change perceptions of the world. At the same time he insisted on the need to verify data and to make firsthand observations.[39] Unlike some contemporaries who copied data from existing astronomical tables, Peiresc stressed the need for repeated observations and standardized materials and methods.[40] He complained of the past when proof consisted only of simple conjecture[41] and criticized those individuals who "want to remain in ignorance, avoiding knowledge of causes or at least effect in experience."[42] Unlike Galileo, who challenged church authority, insisting on the primacy of observational data over the Scriptures, Peiresc wrote that new evidence should be presented cautiously and over time and that a change in perceptions would follow.[43] He and many of his contemporaries believed the Copernican propositions would eventually be accepted just as the Antipodes had been recognized centuries earlier.

Peiresc used various appeals in letters to missionary priests. He emphasized the practical aspects of telescopic observations not only in determining longitude but in reforming the church calendar. Precise tables of planetary movements would enable the dating of religious holidays years in advance. Easter, for example, falls on the first Sunday following the full moon after the vernal equinox. By marking the image of the sun along a meridian, or a north-south line, astronomers could determine the daily position of the sun and the precise number of days between equinoxes.[44] In other words, Peiresc stressed applications relevant to the Church and did not generally engage in discussions of the implications of observations taking place at that time. He also assured priests of their contribution to public service, writing that observations would "not be injurious to your pious and charitable conquest of souls. On the contrary, this could serve one day to attract others to follow your example."[45] Not only did cardinals Bagni and Barberini endorse the project for practical reasons, but an ordered world was also proof of a divine creator. "The Book of Nature is the book of books, and nothing is

[38]Russell, *op. cit.*, p. 367.
[39]Peiresc to Arcos, January 25, 1634, *PL*, VII, 123.
[40]Peiresc to Gassendi, November 13, 1633, *PL*, IV, 559.
[41]*Ibid.*, p. 383.
[42]Peiresc to Césaire de Rosgoff, May 6, 1636, *PV*, p. 232.
[43]Peiresc to Holstenius, July 2, 1636, *PL*, V, 443.
[44]See J. L. Heilbron, "The Sun in the Church," *Sciences*, 39 (1999), 29–35.
[45]Peiresc to Colombin de Nantes, August 1, 1634, *PV*, p. 82.

so conclusive as observations of things . . . [where] the greatness of God appears even greater," Peiresc wrote.[46] Hence, by legitimizing telescopic observations in terms of practicality, historical knowledge, church endorsement, and the Book of Nature rather than seeking to disprove the traditional world view, Peiresc hoped to secure the assistance of missionary priests.

In letters to other correspondents, Peiresc justified the importance of astronomy in historical research. Celestial observations could be compared to those made 2,000 years earlier by the Greek navigator Pytheas. Furthermore, careful observations could provide a more accurate determination of latitude and a method of calculating terrestrial longitude of sites from antiquity and early Christianity.

The participation of priests offered some standardization in terms of training and the proximity of their missions to historic sites. The Church, of course, had the authority to command these observations to be made and had the power to give or withhold reward.

### Peiresc's Use of Patronage

Peiresc has been described as using gifts to "flatter, bribe, or coerce . . . ; kindness, persuasion, ruse . . . threats, supplications . . . to achieve his goals."[47] In exchange for gifts, financial security, and protection, correspondents were obliged to provide the information Peiresc requested. As a patron, he not only provided funding and protection but served as a broker in positioning clients in strategic locations—geographically to provide observations and politically to improve his own ties to powerful circles. Jean-Jacques Bouchard, who served as secretary of Latin letters to Barberini, estimated that Peiresc dedicated approximately 12 percent of his income to scholars in Rome alone.[48] His connections to influential circles enabled him to serve as an interface between the private sector of correspondence networks and the public of the Church and state.

By arranging political and ecclesiastical appointments, Peiresc strengthened his own connections as shown in the following exam-

[46]Peiresc to Celestin, April 29, 1633, *PL*, VII, p. 856.

[47]Sydney Aufrère and Marie-Pierre Foissy-Aufrère (eds.), *Egypte et Provence* (Avignon, 1985), p. 182.

[48]Jean-Jacques Bouchard, *Eloge de Peiresc*, December 21, 1637, eds. and trans. Roger Lassalle and Jean-Pierre Blanchi (Mane, France, 1997), p. 33.

ples. He promised the priest Gilles de Loches to bring his scholarly translations to prominence and arrange a position with Barberini. Working as a broker, Peiresc forwarded rare books from De Loches to the cardinal to initiate arrangements, but the explanatory letter that was to accompany this packet was misplaced.[49] Peiresc negotiated positions in Rome for the librarian and geographer Lucas Holstenius and Bouchard, but he was less successful in attempts to obtain a position for the librarian Gabriel Naudé. Recipients of these appointments helped organize observations of the lunar eclipse of August 28, 1635, which enabled Peiresc and his colleagues to determine the difference in longitude of numerous European cities and to discover an error of approximately 1,000 kilometers in maps of the eastern Mediterranean Sea.[50] The promise and acceptance of patronage did not ensure that observations would be made or data provided. Peiresc used various persuasive strategies to procure the needed information. He began by reassuring participants of the need for data even if errors occurred, and when that failed, he reminded them of the telescopes, books, and artifacts he sent, implying there were no free gifts, and he did not hesitate to call upon their superiors.[51]

### Peiresc as Advocate

The repercussions of the Galileo affair were felt in the private arena. In June, 1633, Peiresc wrote Holstenius in Rome that everyone found Galileo's questioning by the Inquisition "unusual" since censors had approved the manuscript for publication.[52] René Descartes would later write that he could not "imagine that he [Galileo], being an Italian and even in the pope's favor, could be accused for wanting to establish the movement of the Earth."[53] Peiresc learned of Galileo's sentencing by the Inquisition (June 22, 1633) only in mid-July in letters from Scheiner—letters that he was to forward to Gassendi in Digne and the Jesuit Athanasius Kircher in Avignon.[54] He wrote Gassendi on August 12,

[49]Peiresc to Gilles de Loches, July 23, 1635, *PV*, p. 148.

[50]Guillaume Bigourdan, *Histoire de l'astronomie et l'observation et des observatoires en France* (Paris, 1918), p. 37.

[51]Peiresc to Michelange de Nantes, August 21, 1636, *PV*, p. 257; Peiresc to Agathange de Vendôme, September 5, 1635, *PV*, p. 167; Peiresc to Bonaventure de Lude, August 22, 1636, *PV*, pp. 258–259.

[52]Peiresc to Holstenius, June 2, 1633, *PL*, V, 406–407.

[53]Descartes to Mersenne, November 28, 1633, *MC*, III, 558.

[54]Beaulieu, *op. cit.*, p. 374.

1633, saying, "You will be pleased to see the esteem he [Scheiner] holds for you but mortified to learn what he has said of poor Galileo . . . which should not be divulged . . . as it has been kept secret in Rome."[55] In correspondence to the Dupuys, he mentioned the sentencing in passing, downplaying the fact that "poor Galileo had to declare solemnly that he did not support the opinion that the Earth moved, yet in his dialogue he used strong reasons to support it."[56] Peiresc tried to minimize the news, fearing it would lead to a controversy between the Church and science and ultimately bring more restrictions on scientific investigations. He stressed in letters that the Church often attempted to reconcile positions "carefully and over time rather than carrying things to the extreme and possibly involving too many men who looked for obvious contradictions . . . so many other affairs of great consequence would have amounted to little if one had not proceeded with such vehemence."[57] He upheld the authority of the Church and its doctrines and did not want a full-blown confrontation that would lead to the condemnation of the Copernican propositions in France. Despite an attempt by the scientific community to maintain the secrecy of the sentence, the journalist Théophraste Renaudot held a public conference in Paris on the mobility of the Earth in October, 1633, four months after the sentencing, and the following January he printed a retraction for this conference in his paper *Relations*, in which he described the Copernican propositions and Galileo's sentencing.[58]

Inquisitors throughout Europe (including France) sent news of the condemnation of the Copernican System to clerics, many of whom taught mathematics and astronomy.[59] However, the sentence and condemnation from Rome were not promulgated in France and hence not recognized by the French Catholic Church. But still scholars remained uncertain as to the status of the Roman decree and whether they could publish freely on the Copernican System in France.[60]

Following the sentencing Peiresc renewed contact with Galileo, generally sending letters through Roberto Galileo in Lyons or Bouchard in Rome. On January 16, 1634, he asked for a telescope in a letter to

[55]Peiresc to Gassendi, August 12, 1633, *PL*, IV, 342.

[56]Peiresc to P. Dupuy, August 16, 1633, *PL*, II, 582.

[57]Peiresc to P. Dupuy, February 6, 1634, *PL*, III, 28.

[58]Théophraste Renaudot, *Relations*, January 5, 1634, pp. 530-532.

[59]See Robert S. Westman, "The Reception of Galileo's *Dialogue*: A Partial World Census of Extant Copies," *Novità celesti e crisi del sapere*, ed. P. Galluzzi (Florence, 1984), pp. 330-331.

[60]Descartes to Mersenne, early February, 1634, *MC*, IV, 27.

Galileo.[61] Galileo sent lenses along with an unusual request to Diodati in a letter of July 25, 1634. Diodati then conveyed the contents of this letter and lenses to Gassendi in the fall of 1634:[62] "If Mr. Peiresc, with the contacts he has with Cardinal Barberini, would intercede to obtain . . . his [Galileo's] freedom to go to Florence . . . it would be a memorable act."[63] This request, which originated with Galileo, indicated the importance of Peiresc's ties to Rome. Since meeting Barberini at the turn of the century, Peiresc cultivated this friendship with gifts of rare manuscripts, exotic plants, a cameo, and even a gazelle.[64] The cardinal reciprocated by sending plants and artifacts, appointing Peiresc's protégés to patronage positions, and endorsing the work on longitude. But this request for clemency was decidedly different as it could set a precedent for ecclesiastical policy. Peiresc made a personal appeal to Barberini on December 5, 1634, for a mitigated sentence, asking the cardinal to convey this request to his uncle, the pope.[65] Peiresc had reason to hope for success in this endeavor. Barberini remained a participant in scientific activities and had received books on the Copernican System.[66]

"Forgive my boldness and give me reason to maintain the confidence I have always had in your kindness to see you undertake several steps to ensure the consolation of an aging man," Peiresc began. He pointed out that Galileo had recanted and that the imprisonment would "stain" the papacy. In his response, Barberini thanked him for the gifts but only addressed the Galileo affair in passing. "I will not fail to convey your letter about Mr. Galileo to His Holiness." But Barberini made no offer to intervene.[67] Peiresc wrote again on January 31, 1635, stressing that Galileo's punishment would be compared to the "persecution" of Socrates and that he had recanted.[68] Often a recantation served to absolve an individual of the crime of heresy.[69] But Peiresc was unsuccessful in his appeal. In this case, friendship and personal loyalty could not bring change in

[61]Stillman Drake, "A Long-Lost Letter of Galileo to Peiresc on a Magnetic Clock," *A Letter from Galileo*, eds. Bern Dibner and Stillman Drake (Norwalk, Connecticut, 1967), p. 45.

[62]This is described in a letter from Peiresc. Peiresc to J. Dupuy, December 5, 1634, *PL*, III, 236.

[63]Diodati to Gassendi, [n.d.] in Guglielmo Libri-Carucci, "Life of Galileo . . . Vie de Galilée," *Journal des savants* (April, 1841), p. 216.

[64]Peiresc to P. Dupuy, April 20, 1625, *PL*, I, 59.

[65]Peiresc to Barberini, December 5, 1634, in Libri-Carucci, *op. cit.*, p. 218.

[66]Peiresc to Holstenius, October 22, 1632, *PL*, V, 393.

[67]Barberini to Peiresc, January 2, 1635, in Libri-Carucci, *op. cit.*, p. 221.

[68]Peiresc to Barberini, January 31, 1635, *ibid.*, pp. 221–222.

[69]Raymond A. Mentzer, Jr., "Heresy Proceedings in Languedoc, 1500–1560," *Transactions of the American Philosophical Society*, 74 (1984), 9.

public affairs. Peiresc's letters do reveal his familiarity with the papal entourage and his use of emotional and rational appeals. Peiresc argued for humanitarian reasons (e.g., an aging man), fulfillment of ecclesiastical conditions (e.g., recantation), and for posterity (e.g., comparison to the persecution of Socrates).

Learning of Peiresc's letter from his relative in Lyons, Galileo described it as an "undertaking where so many others who recognize my innocence have remained silent."[70] Although Peiresc made no more direct appeals to Barberini on this matter, he persisted in his efforts to obtain evidence in support of Galileo's theory of the tides, which according to arguments in the *Dialogue* demonstrated the Earth's mobility. But evidence refuted Galileo's theory.[71]

In August, 1634, Peiresc sent a gazelle, which he received from a correspondent in Tunisia, to Barberini. Although his letters do not explicitly state the purpose of sending this gift to Barberini (except Peiresc did mention he did not have the status to keep such a prestigious gift himself), the timing was propitious—just prior to his attempted negotiations for clemency.[72] About the same time Peiresc also helped Diodati arrange for the publication in Germany of a Latin translation of the *Dialogue* and of a Copernican treatise, both of which had been condemned by the Church. Copies of the book arrived in Paris in July, 1635.[73] This translation enabled members of the scientific community who read only Latin to access Galileo's thoughts and opinions.

## The End of an Era

Peiresc expanded his investigations in astronomy after 1633, seeking to perfect observational procedure and eliminate errors. With the help of Gassendi and Gaultier, he established a training program in astronomy to provide hands-on experience. Many priests stopped by his home in Aix to receive instruction before traveling to missions in the Levant.[74] He also initiated a project in selenography, or moon mapping,

[70]Galileo to Peiresc, February 22, 1635, in *Galilée: Dialogues et lettres choisies*, ed. Paul-Henri Michel (Paris, 1966), p. 422.

[71]For an example of Peiresc's seeking information on the tides, see Peiresc to Colombin de Nantes, August 1, 1634, *PV*, p. 82; for other efforts, see Drake, "Long-Lost Letter," p. 48.

[72]Peiresc to Aycard, July 26, 1634, *PL*, VII, 326; Peiresc to Arcos, December 18, 1634, *PL*, VII, 144.

[73]See Gassendi to Peiresc, February 11, 1634, *PL*, IV, 458; Mersenne to Peiresc, July 1, 1635, *PC*, II, 550.

[74]Agathange de Vendôme to Pierre de Guingamp et Agathange de Morlaix, April 22, 1636, *PV*, p. 227.

which would enable more precise viewing of the passage of the Earth's shadow over the lunar surface. And he arranged observations of the solstice for work on latitude and the church calendar by constructing a meridian line in a church in Marseilles.

Peiresc's death and the absence of a patron and successor brought a halt to the activities of what would become known as the Provençal School of astronomy. Many participants dispersed; some like Gassendi went to Paris. Although Peiresc left no heir to assume the duties he carried out during his lifetime, he influenced many contemporaries by establishing a protocol for investigations and carrying out astronomy at the time of Galileo's sentencing.

## Conclusion

Peiresc was committed to the New Science and influential in transforming prevailing attitudes about astronomy because he had access to communication networks, used persuasive arguments to legitimize observations, and involved the Church in these undertakings.

With presses controlled by censors, Peiresc developed and expanded correspondence networks for the exchange of scientific information. He also controlled the flow of information. He hesitated to convey news of Galileo's sentencing for fear it would lead the French church to ratify the Roman condemnation and implement more restraint on scientific investigations. Furthermore, he believed that attitudes toward the Copernican System would change with new evidence. Hence, he recognized that control of news in private circles could have implications for public policy. By cautiously advancing new propositions, he decreased the likelihood of controversy and further restrictions on scientific activities.

While Galileo publicized his so-called proof of the Earth's mobility, Peiresc cautiously advanced his research program and gained the needed assistance of the Church. Galileo did not consider the traditional authorities sacrosanct and promoted the primacy of physical evidence. Peiresc, however, maintained the sanctity of church authority and at the same time sought to establish the authority of the individual observer by establishing criteria for acceptable observational evidence. Recognizing that many priests upheld traditional views out of an obligation to the Church, he adapted arguments to legitimize astronomy, portraying it in terms acceptable to the Church (e.g., church calendar reform, a method of longitude, and the Book of Nature). He also used

the promise of reward to induce correspondents to comply, while making it clear that in accepting a gift, they had the obligation to comply.

He used his connections to powerful ecclesiastical circles to promote scientific activities when the Church used censorship and the Inquisition to revive its waning authority. His appeal to Barberini in behalf of Galileo indicated his willingness to support the advance of knowledge, challenge a church decision, and make demands on friendship. This appeal, as well as his work promoting the publication of the Latin translation of the *Dialogue*, could have jeopardized his favored status with Barberini.

Peiresc avoided a direct confrontation with the Church in matters of doctrine while advancing the New Science. He tried to separate religion from science and avoid confrontation. He included the Church in scientific activities, fully understanding that he needed the endorsement of cardinals to implement his program of research.