



## **Obituary**

## Paolo Rossi 30 December 1923 – 14 January 2012

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Figure 1. Paolo Rossi (left) and the President of the Italian Republic Giorgio Napolitano in the library of the Museo Galileo on May 12, 2011.

On the 14<sup>th</sup> of January 2012 Paolo Rossi died in Florence from a grave blood disease, and with his passing one of the most important voices in Italy in the history of philosophy and the history of science from the second half of the twentieth century has been silenced.

Born in Urbino on 30 December 1923, Rossi attended school in Ancona and Bologna before transferring to Florence, where he studied under Eugenio Garin and in 1946 received his university degree in moral philosophy. The fact that he chose as his thesis topic *La libertà* (1928) by the spiritualist philosopher Piero Martinetti was of great ethical and political significance because Martinetti was the only Italian philosopher who in 1931 refused to take the oath of loyalty to the fascist regime. After graduating Rossi published other studies on Martinetti, and edited the works of the nineteenth-century republican philosopher Carlo Cattaneo. He completed his post-graduate studies in philosophy and accepted a teaching post at a secondary school in Città di Castello. There he met Andreina Bizzarri, who became his wife and life-long companion.

In 1948 Rossi moved to Milan when Antonio Banfi, professor of the history of philosophy at the University of Milan, offered him a position as a teaching assistant. Antonio Banfi and Eugenio Garin were perhaps the most influential figures in the development of his philosophical thought. Rossi wrote several essays on Banfi and in 1971 he published a memorial volume in which he acknowledged his profound debt to this mentor.

For the whole of his life Rossi would also recall with gratitude the enlightened teaching of Garin. Reminiscing just a year before his death, he said that having been a protégé of this eminent philosopher opened many doors for him in the community of European philosophers. In 1959 he was granted a fellowship from the Warburg Institute, and the warm reception that was accorded him could be attributed to his philosophical 'heritage' and to the high esteem in which his professor was held by the scholars at this prestigious institution. Twenty years ago Rossi declared that he had learned much from Garin, but one thing stood out in his mind as being particularly significant – not a philosophy but a methodology, a historical perspective that he would apply in all of his thinking. Textbooks could convey the fundamental theorems of philosophy, but these apparently clear and selfevident concepts were actually the outcome of long and complicated processes, and the task of the historian was to reconstruct these processes. Through historical analysis one could gain an appreciation of the infinite variety of philosophical thought - the subtle differences in position, the clash of opposing ideas, and the persistence of traditions – all of which were necessary to the construction of new ideas.

During his early years in Milan, Rossi worked for the publishing house of Mondadori. In 1954 he received a teaching appointment in the history of philosophy at the Faculty of Letters and Philosophy of the University of Milan (Università Statale) and the following year he was assigned to teach

the course in the philosophy of history. In 1961 he was conferred the title of full professor with tenure in the history of philosophy. He taught at the University of Cagliari (1961–1962) and the University of Bologna (1962–1965), before accepting a faculty position at the University of Florence, where he became professor emeritus and remained until his retirement in 1999.

In 1952 Rossi published *Giacomo Aconcio*, a work on the Italian humanist and heretic that testified to Rossi's profound interest in Renaissance Italy and the humanist movement, in which he was influenced by the studies of Eugenio Garin on Italian humanism and the work of Delio Cantimori on the heretical movement in Cinquecento Italy. Fifty years later, in 2003, Rossi would return to a consideration of Aconcio in an essay on *Satanae Stratagemata* (1561) that combined historical research with philosophical reflections on the theme of religious tolerance, following a methodology that was uniquely his own. Indeed, as this essay demonstrates, Rossi would never separate philosophy from its historical and social context, being convinced that the study of history could be integrated with lucid reflections on the eternal and temporal problems of man, viewed both as an individual and as a member of society.

In 1957 Rossi published the first edition of what would prove to be one of his most celebrated and important historiographic works, *Francesco Bacone dalla magia alla scienza*. The philosophy of Francis Bacon became central to Rossi and the Italian edition of the Lord Chancellor's works would accompany him for his entire life. In *Francesco Bacone* Rossi demonstrated the Renaissance roots of Bacon's thought and the contribution of the art of rhetoric to the development of his scientific method. Indeed, by analyzing the nexus between magic, hermeticism and the new humanist philosophy, Rossi revised the image of Bacon as a positivist thinker, revealing instead the complex, heterogeneous context out of which modern science was born. He also provided a fresh analysis of Bacon's *De sapientia veterum* – previously considered to be a work of only literary interest – from the perspective of the historian and philosopher.

When *Francesco Bacone dalla magia alla scienza* was published in English in 1968 it was hailed by Frances A. Yates as a work of groundbreaking importance.<sup>3</sup> It had a broad and enduring impact, being translated into Spanish

<sup>&</sup>lt;sup>1</sup> Rome-Milan: Bocca Editori, 1952.

<sup>&</sup>lt;sup>2</sup> Bari: Laterza, 1957.

<sup>&</sup>lt;sup>3</sup> Francis Bacon. From magic to science (London: Routledge and Kegan Paul, 1968).

and Japanese, and reprinted in Italian in 1974 by Einaudi (Turin) and in 2004 by Il Mulino (Bologna). *Francesco Bacone* is justly considered to be one of the most illuminating works on the English philosopher to be written in the twentieth century. It is not surprising therefore to find that *The Cambridge Companion to Bacon* edited by Markku Peltonen opens with an essay by Paolo Rossi on "Bacon's idea of science."<sup>4</sup>

Rossi's reflections on the myriad dimensions of Bacon's thought and on the close relationship between magic and science during the sixteenth and seventeenth centuries led to historical-cultural studies focusing in particular on advances in technology, in the tools and know-how of the craftsman and the engineer in the early modern age, in other words on the scientific revolution and the origins of modern science. This research would culminate in the publication of one of Rossi's best known works, *I filosofi e le macchine: 1400-1700*, in which he analyzed the new social and cultural perceptions of the mechanical arts. *I filosofi* was reprinted many times, and translated into English, French, Spanish, Polish, Hungarian, Japanese and many other languages. In it we find an intellectual approach to the history of ideas combined with a profound interest in social history and the sociology of science.

In his study of the rise of modern science we can detect the influence of Ernst Cassirer, Alexandre Koyré and Arthur O. Lovejoy, but also Edgard Zilsel, Robert K. Merton, and Thomas S. Kuhn. In 2003 Rossi published an essay entitled "Sulla scienza e gli strumenti: cinque divagazioni baconiane" in which he highlighted not only the importance of the Baconian tradition, but also the role of experimentation and technology in the scientific revolution. In particular, he emphasized that in Koyré's vision of modern science there was no place for instruments and for the philosophies that theorized their central importance.

His research on the genesis and framework of the scientific revolution, and on the emergence of modern philosophy, prompted Rossi to reflect on the ramifications of these new forms of knowledge and on the phenomenon of modernity. He studied such seminal figures as Giordano Bruno, Galileo Galilei and Johannes Kepler, but also less familiar but significant authors like Francesco Patrizi and the Aristotelian school of Padua. This

<sup>&</sup>lt;sup>4</sup> "Bacon's idea of science," in *The Cambridge Companion to Bacon*, edited by Markku Peltonen (Cambridge: Cambridge University Press, 1996), pp. 25-46.

<sup>&</sup>lt;sup>5</sup> Milan: Feltrinelli, 1962.

<sup>&</sup>lt;sup>6</sup> Philosophy, technology and the arts in the early modern era (New York: Harper and Row, 1970).

<sup>&</sup>lt;sup>7</sup> In Musa Musaei. Studies on Scientific Instruments and Collections in Honour of Mara Miniati (Florence: Olschki, 2003), pp. 141-153.

work would prove quite fruitful, leading to the publication of *Aspetti della rivoluzione scientifica*<sup>8</sup> of which an expanded edition, *La scienza e la filosofia dei moderni*, appeared in 1989.<sup>9</sup> It would culminate in *La nascita della scienza moderna in Europa*, which he wrote for the famous series "The Making of Europe" edited by Jacques Le Goff.<sup>10</sup>

In the introduction to La nascita della scienza moderna Rossi laid out some of the canons of his work as a historian of science. Scientific theories constituted an element that could not be reduced to the socio-historical conditions of a given period; that is, they were not a mere reflection of these conditions. Our vision of history includes images of science that mark the frontiers of knowledge; for the Renaissance this included criteria that allow us to separate magic from science or the metaphysics from science. and as we examine this history we discover alternatives, ideas that were rejected, difficulties that were overcome, and the constant necessity to choose in order to be able to define a particular scientific discipline or a specific form of knowledge. Rossi demonstrated that continuism was a reductionist and mediocre form of the philosophy of history superimposed on the real version of history. For his entire career Rossi was a staunch believer in the discontinuity of history, retaining that the scientific revolution and the early modern age constituted a genuine New Age and a radical break with the past.

Paolo Rossi's work was decisive in placing the question of magic and the hermetic tradition on the agenda as factors in the birth of modern science, although he never suggested that magic and science should be considered on the same plane. In 1975 he warned of the risks of assigning too important a role to the hermetic dimension in the reconstruction of the scientific revolution, although this did not imply a negation of the centrality of magic in European culture between the sixteenth and seventeenth centuries. Rossi regarded Paracelsus as an author of the first order, and noted that Newton's interest in alchemy and the hermetic tradition cast a salutary doubt on the notion that the rise of modern science was a smooth and seamless process, although the distinction between magical—alchemistic practices and modern scientific rationalism was clear in his mind. In the introduction to *Il tempo dei maghi. Rinascimento e modernità*, which was the fruit of forty years of study of Renaissance texts, Rossi noted the difficult path that the pioneers of modern scientific knowledge had to forge.

<sup>8</sup> Naples: Morano, 1971.

<sup>&</sup>lt;sup>9</sup> Turin: Bollati Boringhieri, 1989.

<sup>10</sup> Rome-Bari: Laterza, 1997.

<sup>11</sup> Milan: Raffaello Cortina, 2006.

In his defense of modern rationalism and his critique of the vogue for hermeticism and astrology, Rossi exposed the many forms of irrationalism in post-modernist thought, the swings between an arcadian idealism that mythified an imaginary past and the apocalyptic visions which tended to characterize the philosophical and literary culture of twentieth-century Italy. Rossi's bibliography includes collections of essays – among them *Paragone degli ingegni moderni e postmoderni*<sup>12</sup> – which discuss the fallacy of expedient but historically invalid images of modernity such as Martin Heidegger's attempts to nullify science and technology. Rossi always came to the defense of scientific rationality. In one of his last books, *Speranze*, <sup>13</sup> Rossi dismissed the diametrically opposed but equally irrational positions of those who had abandoned all hope and those who clung blindly to hope, in favour of a position based on the 'reasonable hope' that could save men from a sense of impotence and desperation.

Rossi described himself first and foremost as a historian of ideas; by formation, profession and inclination he was a historian of philosophy, but he always viewed the history of science as part of the intellectual history of mankind. Many of his collections of essays, such as *Il passato*, *la memoria*, l'oblio,14 which was awarded the Premio Viareggio 1992 for non-fiction; Naufragi senza spettatore, on the theme of progress; <sup>15</sup> and Bambini, sogni, furori, 16 include reflections on the history of ideas. While mindful of the limits of Lovejoy's theories, Rossi would always regard the North American school as offering a valuable model for the renewal of the Italian approach to philosophical historiography, which was trammeled by the legacy of its idealistic tradition. In Storia e filosofia<sup>17</sup> he adopted the perspective of a historian of ideas, but the book was permeated with an awareness of the close ties between the history of philosophy, the history of ideas, and the history of science, and the necessity for philosophers and historians of philosophy to renounce all claims of hegemony and the notion of the omnipotence of history or of theory.

In 1988 Rossi drew attention to what was a new development in the field of historiography in Italy: the broadening of the themes being chosen for historical-philosophical reconstruction, and in particular the growing interest in the history of scientific thought and the history of science, which

<sup>12</sup> Bologna: Il Mulino, 1989.

<sup>&</sup>lt;sup>13</sup> Bologna: Il Mulino, 2008.

<sup>14</sup> Bologna: Il Mulino, 1991.

<sup>15</sup> Bologna: Il Mulino, 1995.

<sup>16</sup> Milan: Feltrinelli, 2001.

<sup>&</sup>lt;sup>17</sup> Turin: Einaudi, 1969 (republished in an expanded edition in 1975).

were constant threads running through Italian culture. His essay "Filosofia e storia della filosofia" written for the reference work *Filosofia* which he had been invited to edit,<sup>18</sup> and his book *Un altro presente. Dieci saggi sulla storia della filosofia* reflect his now consolidated approach to the history of philosophy, which he considered to be inseparable from the history of ideas and contiguous to the history of science and of scientific thought.<sup>19</sup>

In 1986 Rossi published I ragni e le formiche. Un'apologia della storia della scienza<sup>20</sup> in which he defended the study of the history of science, countering the epistemologists' interpretation of the history of science as a straightforward series of events or chapters with his own historical reconstruction based on decades of research and a careful re-reading of original sources. Through works such as I ragni e le formiche, through his teaching and research, his interviews and participation in other scholarly activities, Rossi contributed to raise awareness in academic and institutional circles of the importance of the study of the history of science, which represented the history of a unique, but difficult and fragile conquest, that is, of science. He defended the historiography of science as an autonomous discipline, one that was of particular importance in Italy, which could boast such pioneering scholars as Aldo Mieli and Federigo Enriques, who could do little however to favour its institutionalization during the first half of the twentieth century. The monumental Storia della scienza moderna e contemporanea edited by Rossi helped to consolidate the position of the history of science in Italian scholarship.21

In *I ragni e le formiche* Rossi retraced the overarching themes of his historical research, which ranged from the study of the relationship between magic and science to the origins of the scientific revolution and the evolution in ideologies and philosophies that followed the technical revolution. Alongside these themes, two figures accompanied him throughout his life – Sir Francis Bacon, but also another great and beloved philosopher, Giambattista Vico, the author of *Scienza Nuova*.

In 1960 Rossi published *Clavis universalis*. *Arti della memoria e logica combinatoria da Lullo a Leibniz*, whose themes were the centrality of classical art of memory in the culture of Europe and the idea of a perfect universal language, which had been elaborated between the sixteenth and seventeenth centuries with important philosophical implications for forms of

<sup>&</sup>lt;sup>18</sup> In La filosofia, edited by Paolo Rossi (Turin: UTET, 1995), Vol. II, pp. 455-499.

<sup>19</sup> Bologna: Il Mulino, 1999.

<sup>&</sup>lt;sup>20</sup> Bologna: Il Mulino, 1986.

<sup>&</sup>lt;sup>21</sup> Turin: UTET, 1988.

knowledge and reality.<sup>22</sup> This groundbreaking volume, which preceded Frances Yates' classic work *The Art of Memory* (1966),<sup>23</sup> was reprinted in a revised edition in 1983 by Il Mulino – a 'restored fossil' as Rossi wrote with characteristic modesty and humour in the copy that he presented to me at the time. Rossi dedicated the second edition to Yates, who had immediately recognized and acknowledged the importance in the first edition of his research on combinatory logic and on the art of memory. *Clavis universalis* was translated into Japanese, French and English and was widely read, being considered to be a genuine milestone on a topic that only afterwards gained broad acceptance among historiographers. Memory was a perennial theme in Rossi's work and, in recognition of his historical and philosophical studies on the mind and memory, the Società Psicanalitica Italiana conferred upon him the Premio Musatti in 2008.

Rossi devoted much time to the study of the eighteenth-century jurist and political philosopher Giambattista Vico, publishing works that included a volume of essays entitled *Le sterminate antichità*. A more extensive edition published by La Nuova Italia would bring together forty years of research on Vico. In the face of the generally accepted interpretations of Vico's work and philosophy, Rossi affirmed his stature but offered a fresh evaluation of his philosophy within the context of the culture of his particular time and place. This interpretation of Vico sparked off a storm of controversy among Italian scholars, but contributed to change the perception and demonstrate the contemporary relevance of his philosophy.

The new discipline of history as defined by Vico figured prominently in *I segni del tempo. Storia della Terra e storia delle nazioni da Hooke a Vico*, <sup>26</sup> a work in which Rossi explored the history of geology and the temporal dimension of the history of man, together with questions of language, in order to reconstruct the discovery of time in a context in which naturalists, cosmologists, geologists, philosophers and scholars all interacted during the early modern age. *I segni del tempo* reflected Rossi's ability to orient himself in very different fields, from the history of the Earth to the history of nations, as he analyzed the shifting perceptions and interpretations of the past. *I segni del tempo* was extremely influential and the English edition,

<sup>&</sup>lt;sup>22</sup> Milan-Naples: Ricciardi, 1960.

<sup>&</sup>lt;sup>23</sup> Francis Yates, *The Art of Memory* (London: Routledge and Kegan Paul, 1966).

<sup>&</sup>lt;sup>24</sup> Le sterminate antichità. Studi vichiani (Pisa: Nistri-Lischi, 1969).

<sup>&</sup>lt;sup>25</sup> Le sterminate antichità e nuovi saggi vichiani (Florence: La Nuova Italia, 1999).

 $<sup>^{26}\</sup> I$  segni del tempo. Storia della Terra e storia delle nazioni da Hooke a Vico (Milan: Feltrinelli, 1979).

which appeared in 1984, was well received, particularly among historians of science and historians of geology.<sup>27</sup>

In 1985 the American History of Science Society conferred on Paolo Rossi the Sarton Medal for his contributions to the history of science. In his presentation speech, Charles B. Schmitt captured Rossi's balanced scholarly approach, noting that he had opened the way for research into the hermetic tradition, but was one of the first to disassociate himself "[...] from some of the more bizarre directions in which the enthusiasts were moving." In 2002 the Société de Physique et d'Histoire Naturelle of Geneva bestowed on Rossi the Marc-August Pictet Prize, and in 2009 he was awarded the Prix Balzan in the history of science.

Paolo Rossi was a member of the Academia Europaea and the Accademia Nazionale dei Lincei. He served as president of the Società Filosofica Italiana from 1980 to 1983 and was one of the founding members and the first president (1983-1990) of the Società Italiana di Storia della Scienza.

Rossi collaborated frequently with institutes of research on the history and the philosophy of science, including the Domus Galilaeana in Pisa, the Centro Fiorentino di Storia e Filosofia della Scienza, and the Istituto e Museo di Storia della Scienza in Florence (now the Museo Galileo). His links with the Museo Galileo were extremely close, and date back to when the museum was under the directorship of Maria Luisa Righini Bonelli. He served as a member of the museum's Comitato Scientifico and from 1986 on the International Editorial Board of the journal *Nuncius*. Just a few years ago Rossi decided to donate his valuable private collection of books on the history of science and related archival material to the museum on his death.

Rossi was a formidable scholar – painstaking and severe – but at the same time he was warm and cordial, and eternally interested in the professional and personal growth of his former students. The influence of his example and his teaching is testified to by the large number of students who have gone on to become distinguished scholars in various subjects pertaining to the history of philosophy and the history of science. The recognition that he earned both in Italy and abroad can be measured in the many *Festschriften* that appeared in his honour. In 1990 Stefano Poggi and Massimo Mugnai published a collection of essays – *Tradizioni filosofiche e mutamenti scientifici* – to mark the occasion of Paolo Rossi's sixty-fifth

<sup>&</sup>lt;sup>27</sup> The Dark Abyss of Time: The History of the Earth and the History of Nations from Hooke to Vico, translated by Lydia Cochrane (Chicago: The University of Chicago Press, 1984).

<sup>&</sup>lt;sup>28</sup> Annali dell'Istituto e Museo di Storia della Scienza di Firenze, 1985, 10/2, p. 138.

birthday.<sup>29</sup> In 1995 Antonello La Vergata and Alessandro Pagnini edited a volume in his honour entitled *Storia della Filosofia, Storia della Scienza* to which former students and also such distinguished colleagues as William R. Shea, Yehuda Elkana, Paul K. Feyerabend, Ian Hacking, Larry Laudan, Nicholas Jardine and George S. Rousseau contributed essays.<sup>30</sup> In 2000 Ferdinando Abbri and Marco Segala edited a book of essays by some of Rossi's younger ex-students, which also contained a bibliography of Rossi's works updated to 1999.<sup>31</sup> In 2007 John L. Heilbron produced a volume in collaboration with the Museo Galileo and published by Leo S. Olschki, entitled *Advancements of Learning*, to which some of the most eminent historians of science in Europe and North America contributed.<sup>32</sup>

In 1986 I had the signal honour of being invited by Rossi to co-author an editorial on "The History of Science in Italy" for *Isis*.<sup>33</sup> At the time I still thought of my former maestro as "Professor Rossi," but he eventually became "Paolo" and over the course of forty years I had the privilege of spending much time in his company and I never ceased to learn from him. I know that I, along with many others, will miss him deeply for his sage advice, his percipient critical observations, and his profound humanity. Through his writings, his teaching, and his generous participation in the activities of the scholarly community he contributed in countless ways to the advancement of studies in the history of philosophy and the history of science during the second half of the twentieth century.

<sup>&</sup>lt;sup>29</sup> Massimo Mugnai, Stefano Poggi (eds.), *Tradizioni filosofiche e mutamenti scientifici* (Bologna: Il Mulino, 1990).

<sup>&</sup>lt;sup>30</sup> Antonello La Vergata, Alessandro Pagnini (eds.), Storia della Filosofia, Storia della Scienza. Saggi in onore di Paolo Rossi (Florence: La Nuova Italia, 1995).

<sup>&</sup>lt;sup>31</sup> Ferdinando Abbri, Marco Segala (eds.), *Segni e percorsi della modernità. Saggi in onore di Paolo Rossi* (Arezzo: Università degli Studi di Siena, 2000).

<sup>&</sup>lt;sup>32</sup> John L. Heilbron (ed.), *Advancements of Learning. Essays in Honour of Paolo Rossi* (Florence: Olschki, 2007).

<sup>33</sup> Isis, 1986, 77: 213-218.