

ALEXANDRE KOYRÉ

(1892-1964)

ALEXANDRE KOYRÉ's many friends and colleagues from different lands and disciplines learned with great regret of his death on 28 April 1964. He had been seriously ill in the winter of 1962-3, but had made a remarkable recovery by the summer of 1963, only to be taken seriously ill again that autumn. From this last illness there was little hope of recovery, and death, which in the end came suddenly, was a merciful relief.

Born at Taganrog on the 29 August 1892, he received his secondary education at the Lycée at Tiflis, from whence he proceeded in 1908 to Göttingen and Paris for his university studies, especially in mathematics and philosophy. After the war of 1914-18, in which he engaged voluntarily in the French army, he threw himself into philosophical researches resulting in two related works on the proofs for the existence of God by Descartes¹ and St. Anselm,² the latter constituting his doctoral thesis in the University of Paris. The study in the philosophy of religion displayed by these works culminated in his study of Boehme³ for which he was awarded the degree of Doctor of Letters at the University of Paris. By this time Koyré had acquired a mastery of late medieval and renaissance Latin and philosophy which was later to stand him in good stead in his researches in the history of science. For a time he followed up his work on Boehme with studies of lesser known mystics such as Weigel⁴ and Franck,⁵ and a study in the quite different field of Russian philosophy and nationalism,⁶ but his introduction to Copernicus's *De Revolutionibus*⁷ signalled a new, and thereafter growing, interest in the history of science. This was only the first of many succeeding works in that field of which the most important were the *Études Galiléennes*,⁸ *La Révolution Astronomique*,⁹ and *From the Closed World to the Infinite Universe*.¹⁰ Although Koyré continued to be deeply interested in philosophy and the philosophy of religion for the remainder of his life, and published works such as those on Plato¹¹ and Descartes,¹² there can be no doubt that his researches and

¹ *Essai sur l'idée de Dieu et les preuves de son existence chez Descartes*. Paris, 1922.

² *L'idée de Dieu dans la philosophie de St. Anselme*. Paris, 1923.

³ *La philosophie de Jacob Boehme*. Paris, 1929.

⁴ *Valentin Weigel* (Cahiers de la *Revue d'Histoire et de Philosophie religieuses*, no. 21). Paris, 1921.

⁵ *Sébastien Franck* (Cahiers de la *Revue d'Histoire et de Philosophie religieuses*, no. 25). Paris, 1932.

⁶ *La Philosophie et le Problème National en Russie au début du XIX^e siècle* (Bibl. de l'Institut de Léningrad, vol. x). Paris, 1929.

⁷ Copernic. *Des Révolutions des Orbes Célestes*. Introduction, texte, traduction, notes. Paris, 1934.

⁸ *Études Galiléennes*: I. *A l'aube de la science classique*; II. *Galilée et la loi d'inertie*; III. *La loi de la chute des corps, Descartes et Galilée*. Paris, 1939.

⁹ *La Révolution Astronomique. Copernic, Kepler, Borelli*. Histoire de la Pensée, no. 3. Paris, 1961.

¹⁰ *From the Closed World to the Infinite Universe*. Baltimore, 1957. Translation, Paris, 1962.

¹¹ *Introduction à la lecture de Platon*. Paris, 1962.

¹² *Trois leçons sur Descartes*. Cairo, 1937.

writing in the history of science formed by far the greater part of his creative work from 1934 onwards. Up to the outbreak of the Second World War this work was done in Paris where he had returned in 1930 as director of studies at the *École Pratique Des Hautes Études* after a year as *mâitre des conférences* at Montpellier. The war years themselves he spent in the United States taking an active part in the efforts of the Free French in American intellectual circles, especially by teaching in New York at the School of Social Research and the *École Libre Des Hautes Études*. After the war he took up his duties in Paris again, but now combined with teaching and research at Princeton, where he became a member of the Institute for Advanced Studies in 1956.

Koyré's researches and writings in the history of science were largely devoted to three fields: the histories of astronomy and dynamics from Copernicus to Galileo, and Newton. In each of these fields he made contributions of major importance. For example, his detailed working out of the interplay between astronomy and dynamics which eventually led to the fusion of both subjects in the Newtonian synthesis; or his exposition of the essentially terrestrial nature of Galileo's dynamics compared with Descartes's much more general approach; or his interpretation of Newton's famous 'Hypotheses non fingo'.¹³

The final assessment of Koyré's contributions to the history of science will be difficult before the publication *by subject* of the large number of articles scattered in many Reviews and Journals—as in the case of his Newtonian Studies. But it is safe to predict that the publication of such collections will not alter one's view of the main presuppositions underlying Koyré's approach to the history of science as we find them in his *Études Galiléennes*, *La Révolution Astronomique*, and *The Closed World*. These would seem to be:

(1) An insistence that the histories of astronomy and dynamics from 1543 to 1687 can only be understood in conjunction as part of a greater synthesis.

(2) The far greater importance of *a priori*, Platonic elements as against empirical, experimental, or technological elements in the growth of science from 1543 to 1687.

(3) The relative unimportance of actual experiment in the development of Galileo's thought.

(4) The belief that the truly revolutionary change marking the transition from the medieval to the modern world consisted in the change from the closed, geocentric geometry and system of Aristotle, to the open Euclidean, non-terrestrial geometry and system of the new science.

Few critics will quarrel with (1), and most will be in considerable agreement with (4), but (2) and (3) are likely to encounter some opposition. It could be argued, for example, that the really important difference

¹³ *L'hypothèse et l'expérience chez Newton*. Bull. Société française de Philos., 1956, no. 2.

between the treatments of the law of falling bodies by Descartes and Galileo was that Galileo *knew* that the true law was $s \propto t^2$, not on *a priori* grounds, but from experiment. This would certainly seem to be one interpretation of his famous letter of 1604 to Paolo Sarpi. It could likewise be argued that technological factors of all kinds played just as important a role as neoplatonic influences in the great developments between Copernicus and Newton. For example, with the instruments of Tycho Brahe without which Kepler and then Newton's contributions would have been impossible. However, that Koyré held his views tenaciously, and argued in favour of them most persuasively, and that some of these views were controversial, only added to the value of his work.

Great novelists from Pasternak backwards have had the power to impose on their readers the illusion of a real living world. It is the same with Alexandre Koyré's best work, especially the *Études* and *La Révolution Astronomique*. When reading these we enter a world of warm scholarship, of philosophical attitudes, of history, dense with details, asides, footnotes, references, informed with understanding, shot through on occasion with shafts of passion, and perhaps in imagination we return to the Rue de Navarre and the quiet eager voice of our friend talking effortlessly, accentuating a point here and there with a motion of the hand, illuminating some episode or period by a wealth of comment and detail, bringing to life, as he alone could, the 'Drang nach Wahrheit' of a Galileo or a Newton, until Madame Koyré gently indicates by a look that we have talked enough. Thus Alexandre Koyré lived and worked, totally committed to his chosen calling of learning and scholarship. Historians of science must count themselves fortunate that the wayward path of his intellectual interests led him at last into their domain which he then so enriched and illuminated by a mind in which understanding, scholarship, intellect and humanity were happily blended. Of him it could truly be said: 'His life was gentle, and the elements so mixed in him, that nature might stand up and say to all the world, this was a man.'

JOHN HERIVEL