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 $\mathbf{Coumet}, \mathbf{Ernest}$ 

★ Œuvres d'Ernest Coumet. Tome 2. [Works by Ernest Coumet. Vol. 2] Edited by Catherine Goldstein. Sciences: Concepts et Problèmes. [Sciences: Concepts and Problems]

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In 2016 and in 2019, the Presses Universitaires de Franche-Comté in Besançon published volumes 1 and 2 of *Œuvres d'Ernest Coumet* (in French). Coumet was a French episte-mologist and science historian very famous in France and in French-speaking countries. Is this the case elsewhere? All his production was in French. To our knowledge, his work has not been translated.

The first volume, edited by Thierry Martin and Sophie Roux, is a publication of 24 of Coumet's texts written between 1964 and 2003, with an introduction by Roux: "Ernest Coumet au pays des merveilles. Rencontres épistémologiques d'un historien des sciences" (pp. 13–67). The editors explain that this volume brings together all the articles written by Coumet. This is not exactly the case. Coumet authored some 50 research articles and papers (29 published and 23 unpublished) listed in the 2001 issue no. 122 of Revue de Synthèse. The paratext contains about 1400 footnotes and an index nominum of about 800 names.

Roux explains Coumet's beginnings: his courses in philosophy with Roger Daval (1911–1994) in Bordeaux in the 1950s, his 'agrégation' of philosophy in 1960 (a French qualification for teaching in a secondary school in France); his Ph.D. in 1968 [Mersenne, Frenicle, et l'élaboration de l'analyse combinatoire dans la première moitie du XVIIe siècle, Paris] under the direction of Pierre Costabel (1912–1989) and his posts as assistant and as director of studies at University Paris 10 (Nanterre), Paris 1 (Panthon-Sorbonne) and EHESS (École des Hautes Études en Sciences Sociales in Paris). Afterwards, she proposes a classification of the texts. Some are about the history of probability (combinatorics) and logic; others in the 1980s are generalities about the history and philosophy of science. In order to study probabilities, Coumet considered Blaise Pascal (1623–1662), John Venn (1834–1923), Jéröme Cardan (1501–1576), Marin Mersenne (1588–1648), Christian Huygens (1629–1695), and Auguste Comte (1798– 1857). To study logic, Coumet researched Lewis Carroll [Charles Lutwidge Dodgson] (1832–1898) and Georges Boole (1815–1864). To study the history and philosophy of science, he read René Descartes (1596–1650), Karl Raimund Popper (1902–1994), Blaise Pascal (1623–1662), Paul Tannery (1843–1904), Émile Littré (1801–1881), Édmé Mariotte (ca 1620–1684), Alexandre Koyré (1892–1964), Henri Poincaré (1854–1912), Ernest Sorel (1850–1904), Pierre Duhem (1861–1916) and Édouard Le Roy (1870–1954).

At the end of her introduction, Roux develops two remarks about language and about the concept of recurrence. Her introduction was written thanks to Coumet's texts and thanks to some of Coumet's archives at IMEC (Institut Mémoires de l'Édition Contemporaine) near Caen.

Coumet's archives were deposited in 2003 at IMEC. They include 309 archive boxes, 5,420 printed documents and his personal library. A brief inventory of Coumet's archives would have shown the potential of this new foundation. Seven of Coumet's articles were published in Mathématiques et sciences humaines, a review founded in the 1960s by Georges-Théodule Guilbaud (1912–2008) and Marc Barbut (1928–2011). In 1982, Coumet, Barbut and Bernard Bru founded the seminar Histoire du calcul des probabilités (now Histoire du calcul des probabilités et des statistiques). This review and this seminar played a very important part in building scientific community in the history and epistemology of probability and statistics.

The footnotes give some useful context. (But why did the editors decide to renumber them for each section of the volume?) Additional footnotes would be helpful. For example, Coumet mentioned Kokiti Hara's studies. What are the sources? External research indicates that it deals with an article of Japanese studies in the history of science [K. Hara, Jpn. Stud. Hist. Sci. **1969**, no. 8, 33–54; per reviewer]. An index of reviews and journals mentioned in the volume would also have been useful.

The second volume—edited by Catherine Goldstein—is a publication of Coumet's Ph.D. thesis with an article of Coumet about Siméon Denis Poisson (1781–1840) at École polytechnique (pp. 443–453) (Why isn't this article in the first volume?) and an introduction by Goldstein: "De l'autre cöté du miroir et ce qu'Ernest y trouva" (pp. 11–40). The paratext contains about 900 footnotes, editorial conventions and an index nominum of about 200 names.

As Roux does in the first volume, Goldstein uses a part of Coumet's archives (only 10%) in order to explain Coumet's course between Hasparren and Paris, his organization of his Ph.D. thesis and of his ways of working. Goldstein gives very interesting practical details about Coumet's conception of working history and philosophy of mathematics. Very often Coumet took up previous studies. Re-writing old articles ("reprendre" in French) was an almost conceptual strategy for Coumet.

Coumet's Ph.D. thesis is structured in three parts. The first is "Émergence de l'analyse combinatoire à travers les 'usages' des 'combinaisons'" ("Emergence of combinatorial analysis through the 'uses' of 'combinations'"); the second is "L'étude mathématique des combinaisons" ("The mathematical study of combinations") and the last is "Énumérations et numérations" ("Enumerations and counts"). Goldstein gives some footnotes ("rare and intended only to correct information according to the current state of research" [p. 42]) identified by N. D. É. (for "Note de l'Éditeur"). As in the first volume, we don't understand the editorial choice of renumbering footnotes for each section of the volume. More footnotes would be invaluable for understanding and comparing Coumet's contributions and contextualizing them.

Thanks to these two volumes with Coumet's works (25 articles and his Ph.D. thesis), secondary sources (Roux's and Goldstein's introductions) and paratext (although we are thinking that it is too minimal), the reader is able to understand the significant part played by Coumet in philosophy and in history of science. With his texts and his role in his seminar at the EHESS, Coumet was for a whole generation of science historians a representative of a new way to do "historical epistemology" and to reconcile the internalist and externalist approaches, usually opposed, at the time. The translation into English of one of his main articles, such as "Did the theory of chance arise by chance?" (1970) (vol. 1, pp. 185–213), would be of interest in order to make Coumet's epistemological thought more clearly known outside French-speaking countries.

Norbert Verdier