original form, its Enlightenment dress, or its Marxian transformation, shatters on the hard rock of human nature, a nature known in part to politicians and novelists but highly refractory to the tools of science."

James McGeachie, Belfast

A. C. CROMBIE, *Science, optics and music in medieval and early modern thought*, London and Ronceverte, Hambledon Press, 1990, pp. xxii, 474, illus., £37.50 (0–907628–79–6).

This is a collected volume of essays written over the last forty years by Alistair Crombie, whose major achievement lies in establishing the history of science as a legitimate and viable discipline on British soil. It is Crombie's conviction that scientific thought, first created by the Greeks, is the "essential diagnostic characteristic" of Western civilization and that therefore the history of science is an important and integral part of Western intellectual history (Preface, chs 1, 18). Positing a continuous tradition of scientific thought as the object of this history of science, Crombie identifies it first in the twelfth and thirteenth centuries, when Greek philosophy was recovered and assimilated into Western thought through logic and calculation, and when figures such as Robert Grosseteste and Roger Bacon established the elements of scientific experimentation and quantification (chs 2–7). Crombie further finds in the renaissance idea of the "virtuoso" the intellectual commitment to rational analysis and material mastery of nature essential for modern scientific thought (ch. 8). Galileo Galilei, René Descartes and Marin Mersenne all made their contributions to establishing the identity of modern science by developing a mathematical programme and a mechanistic philosophy (chs 11, 12, 15, 16). By skilful internal analyses of available theories and philosophical presuppositions, Crombie examines how men in the past succeeded (or failed) in reaching the right questions and answers. In particular he argues that the mechanistic and mathematical conception of nature enabled physiological breakthroughs such as Johannes Kepler's discovery of the dioptric mechanism of the eye and the discovery of auditory mechanisms by Thomas Willis and Joseph Du Verney (chs 9, 10, 13, 14).

In this volume not only may we read Crombie's own scholarly contributions to individual fields of the history of optics, music or physiology, but the collection as a whole also enables us to appreciate and trace the process by which the history of science came to be established as an academic discipline (the Appendix includes Crombie's account of the teaching of the history of science at Oxford).

Now that this discipline has been established, perhaps there is less need for us to make the claim for an independent identity for the history of science by stressing its differences from other disciplines. We are now in a position to reap a richer harvest by crossing conventional disciplinary boundaries to learn more from other approaches (such as economical, sociological, political and popular history) in order to understand the '*people* thinking' (p. 463)—if indeed, as Crombie himself states, the history of thought is about the "totality of human experience in all its variety on this spinning globe" (p. 441).

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