

Book Reviews

ERNA LESKY (editor), *A system of complete medical police. Selections from Johann Peter Frank*, Baltimore, Md., and London, The Johns Hopkins University Press, 1976, 8vo, pp. xxiii, 469, £24.00.

J. P. Frank (1745–1821) of Vienna is renowned for his 6,262 page *System einer vollstandigen medicinischen Polizey*. It has never been translated into English and this is the first extensive selection from it in translation. It is intended for the physician, medical historian, social worker, historian, sociologist, and cultural historian. Those of us who have tried to read Frank's German will be especially grateful to the translators, and also to Professor Lesky for her excellent 'Introduction'. She must also be congratulated on the selections she has made from such a voluminous work. Together they give a very fair impression of the whole treatise and present Frank's main lines of thought and the problems of the eighteenth century that he was attempting to combat. The editor also aims to demonstrate the philanthropic mood of his time and problems of population, as well as Frank's liberal attitude to social problems.

Professor Lesky has once more placed us in her debt by producing an important contribution to the history of medicine, and it is, therefore, a pity that only a limited number may benefit from it in view of the very high price.

DAVID C. LINDBERG, *Theories of vision from Al-Kindi to Kepler*, Chicago and London, University of Chicago Press, 1976, 8vo, pp. xii, 324, illus., £13.60.

In the medieval period and the renaissance, optics was one of the most highly developed scientific disciplines and the author claims that theories of vision were central to it. After a background introduction he traces the contributions to this field of Islamic scholars such as Al-Kindi, Hunain ibn Ishaq, Avicenna, Averroes, and Alhazen (965–1039), the most important of them all, and then the origins of optics in the West. Representative of the latter are, amongst others, Grosseteste, Bacon, Pecham, Witelo, the Western followers of Alhazen called the Perspectivists, Leonardo da Vinci, and finally Kepler, in the seventeenth century, who solved the problem of vision theoretically. Professor Lindberg concentrates on the works of Alhazen and Kepler because of their great significance and he places them accurately in historical perspective. Very wisely he has excluded psychology and epistemology which were never of central concern, and to tackle them would have jeopardized his project. He therefore concentrates on the mathematics, physics, and physiology of visual theory and his book is a comprehensive and lucid account of an important aspect of the history of physiology. There are nearly one hundred pages of notes and bibliography and much of the text is based on primary sources. It is worthy of wide circulation.

DON R. BROTHWELL (editor), *Beyond aesthetics. Investigations into the nature of visual art*, London, Thames & Hudson, 1976, 8vo, pp. 212, illus., £9.50.

There are additional ways of looking at art other than from the purely artistic and aesthetic points of view, and the twelve essays in this book examine these less explored avenues. Being a product of human behaviour visual art has a link with the evolution of man, as an aspect of human ethology and as part of the cultural needs of a community. Thus the authors of the collection include the anthropologist, the biologist, the ophthalmologist, and the sociologist, and they provide information about artists,

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ranging from their vital and social statistics to their defects of vision, about the drawings of chimpanzees and stick drawings of children. Unfortunately much of this seems to be of slight value. There are also essays on the development of visual perception in children and art education, but for the historian the chapters on visual art in primitive man and the defective visual acuity of artists will be of special interest.

ANDREW WOODFIELD, *Teleology*, Cambridge University Press, 1976, 8vo, pp. viii, 232, £6.50.

In biology, psychology, social science, theology, and engineering, teleology is frequently invoked to account for purpose, goal, end or function. We usually use the term when we say that a certain phenomenon takes place in order to fulfil some purpose, and it was used extensively in ancient biology and physiology by Aristotle and Galen when they wished to link structure and function. It was a simple and satisfactory means of explication at a time when information in these areas of knowledge was still relatively meagre.

Teleological explanations are thus used in several disciplines and a comprehensive investigation of their varieties, logical structure and their proper uses has long been needed. Dr. Woodfield's book is, therefore, welcome, for he discusses this difficult and diffuse area of knowledge in a competent and lucid fashion. He also gives a survey of the relevant literature, but although there is ample reference to Aristotle, Galen does not seem to be mentioned, perhaps because he was merely purveying Aristotelian concepts. Likewise insufficient attention has been paid to the use of teleological arguments in biology in general and in its history in general.

MAGDA WHITROW (editor), *Isis cumulative bibliography. A bibliography of the history of science formed from Isis Critical Bibliographies 1-90, 1913-1965*, vol. III: subjects, London, Mansell, 1976, 4to, pp. xviv, 678, £28.00.

The first two volumes of this work contained references to personalities in Volume 1 (1971) and institutions in Volume 2 (1971). The third deals with subjects, the organization of which presented a much more difficult problem of classification, and Mrs. Whitrow must be congratulated on conceiving an excellent arrangement of a huge mass of widely disparate material. In the case of medicine and pharmacy (pp. 360-518) there can be few criticisms of the method adopted, although no doubt some will be dissatisfied as is always the case with this type of compilation. In addition to this purely medical section there are, of course, a number of areas which will be of interest to the historian of medicine: biology, anthropology, psychology, food technology, etc. At the end, a classification scheme for the history of science, medicine, and technology is offered.

The first two volumes of this excellent work have already received deservedly high praise and there is every reason to believe that the present volume will achieve the same accolade. Workers in the field of history of science, medicine and technology have reason to thank those who have by financial support made the publication possible, as well as the publishers, and last, but by no means least, Mrs. Whitrow whose devoted labours over a number of years have earned her the indebtedness of generations of scholars extant and in the making.