

PREFATORY NOTE

The purpose of the present study is to explore the thought of John Dee, his general theories and particular achievements, in so far as these can be reconstructed from all available evidence, and to examine these in their contemporary intellectual setting, in relation to the current controversies of his day, and the standards of knowledge then prevailing. The justification for so detailed an autopsy is, briefly, the plea that Dee may properly be considered a typical, though outstanding, example and exponent of sixteenth century English scientific neo-Platonism — a movement which made a significant, if somewhat neglected, contribution to later and more generally appreciated development in science and philosophy. The basic assumptions of this study (set out in Ch. I.) are similar to those of Burt's Metaphysical Foundations of Modern Physical Science: in particular, the position it aims to explode is that conveniently summarized in the following extract from a 19th century account of Dee — I select this passage, which incidentally represents one of the most determinedly fairminded, serious and sympathetic estimates of that period, since it concisely and explicitly summarises a view which, in various guises, is still probably the prevalent one of Dee, and also, of course, of many of his contemporaries:

"Few names occur in the early history of English science more deserving of notice than that of John Dee. Living in an age when philosophy was encumbered with a load of scholastic subtleties, and perverted in its very spirit by superstition and credulity, he evinced a strength and vigour of intellect which were sufficient for everything but to overcome the temptations peculiar to the period in which he laboured. Had he lived posterior to Bacon, and possessed the light which the inductive system would have afforded him, the happiest results might, in all probability, have crowned the almost gigantic energy with which he pursued the sciences. But an ardent temperament led him to espouse the wildest theories that were afloat in his age, and the little solid reputation he has enjoyed with posterity is owing, not to the value of his works, but to the records which remain of his wonderful assiduity and acquirements."(1)

There has been increasing recognition of the value of Dee's work in recent years, and examinations of certain parts of it — more notably of his geographical and astronomical labours — have appeared. However, no overall survey and assessment of his activities, no investigation of the fundamental characteristics of his thought has yet been made. Consequently, although full acknowledgments are contained in the notes to the various sections of my extensive debts to preceding writers, since nearly all that concerns Dee's own work results from an original study of it, and the discussions of more general topics connected with this usually are based on a fresh survey of the original sources — principally such as were suggested by this study of Dee's own writings — any brief indication or sharp delimitation of what can justly be claimed as more entirely original in the present work is difficult, if not impossible to make.

The form of this study probably requires a work of explanation; that is the division of chapters according to temporal periods in Dee's life, with biographical sections preceding the discussion of more general topics — though further personal detail is sometimes interwoven with the presentation of the latter. These divisions correspond conveniently, though rather broadly, with deeper more truly organic divisions of the theme into related sections dealing with theoretical subject matter of more purely intellectual, impersonal significance. The detailed analyses preceding the various chapters are designed to make this readily apparent. These superficially chronologically determined sections, moreover, connect with one another in the sense that a general discussion of a topic precedes subsequent detailed examination of the specific treatments of it by Dee; for instance, the analysis of Dee's attitude towards astrology and the account of its place in 16th century controversy, on the occasion of Dee's initial interest in it, and of Dee's astronomical and mathematical views in Ch. III leads on to the examination and evaluation of his attempt to sketch an "astrological," though nevertheless "mechanical," cosmology in Ch. V; or again, even the necessarily somewhat fragmentary and outwardly purely historical data concerning his later years in Ch. X, will, it is hoped, appear of no more than personal interest when viewed in relation to the intellectual context of Dee's personality presented in previous chapters.

The present form however is partly also a result of the fact that this study was originally designed to include a second part which would analyse the contents of the Preface Dee provides for the English Euclid of 1570, trace out its influence in its own time and through the succeeding century, and exhibit the chief sources which contributed to its making. The bulk of this

"introductory survey" however soon made it apparent that this enterprise would have to form a separate and subsequent work. But though the present study cannot therefore pretend to be an exhaustive presentation of the material that has been accumulated concerning Dee's work and its influence, it is none the less complete in itself and remains a necessary preliminary to any just appreciation of Dee's scientific importance, even though this should be considered restricted to his Euclid Preface. The present study indeed treats serially and discursively much the same themes as an examination of the Preface would survey more synthetically and synoptically, and though the Preface itself, as a separate work of Dee's, receives only brief and comparatively superficial notice here, yet its contents have been used throughout, as will be evident from the text, as a standard for determining relative emphases and as providing coordinates for the presentation of various subjects discussed. The scientific and mathematical importance of Dee's Euclid Preface has never been disputed, the apparent modernity of many of its pronouncements — on experimental method or logical rigour in mathematical procedure — have evoked many appreciations. At the same time its whole metaphysical basis — its neo-Platonic epistemology and ontology, its thorough-going idealism — which is clearly apparent in its text has received little attention: it has been valued for its obviously fruitful consequences but not historically examined, that is exhibited in relation to the characteristics of a period and to the intellectual tendencies of a personality that combined, actually to produce it. To do this is the aim of the present study; its desirability and justification is, in I.A. Richard's phrase, that a profitable discussion of any opinion is not possible "until we have discovered what it expresses as well as what it states."¹ Especially is this true in the case of Dee's Euclid Preface, since this was, for all its contemporary and subsequent importance, designedly a popularisation of Dee's thought, intended to serve as an introduction to mathematics and particularly addressed to those classes who most needed this science in their daily occupations and were yet devoid of school-learning or any knowledge of Latin, the conventional language of learned communication; the origins of the Preface, its significance as Dee envisaged it, are thus only to be discovered by an examination of his more general and fundamental theories and other endeavours, which forms the subject of the present study.

Finally, mere biography, it will be obvious, is a wholly secondary consideration in the present work. However, new biographical materials — such for instance as do not appear in Miss C.F. Smith's Life, but remain scattered, unknown, or not easily accessible — have been fairly fully recorded, usually in the notes. Otherwise the guiding criteria in the selection of such details have been the necessity for continuity of narrative and the desirability of including such incidents as either possessed some intrinsic interest or threw additional direct light on Dee's work or on his personality in so far as this materially affected his intellectual productions. An attempt has been made for the first time, though, to provide complete references to authorities in support of all biographical statements, while the bibliography, with certain exceptions detailed in the preliminary notes, includes a full list of all discoverable works making any significant reference to Dee as an individual.

In conclusion I must express my deep and abiding gratitude to those many persons who have at various times assisted me in this work — who have gone to personal trouble to facilitate my investigations or who have placed their own accumulated relevant information freely at my disposal such as Dr. J.J. Keevil, Librarian of the Royal College of Physicians, and Sir. T.D. Kendrick, Director of the British Museum — but whom it would be impractical to catalogue in detail and from among whom it would be invidious merely to mention a few. In particular I must express my thanks to my supervisors: to Miss. F.A. Yates of the Warburg Institute for her constant patience, encouragement, and criticisms during the past four years, and to Dr. R.L. Saw of Birkbeck College, for much valuable advice after painstakingly deciphering none too legible versions of this study. I owe a great debt also to the Warburg Institute which appointed me to a fellowship to enable me to produce this work. My thanks are due to all my former colleagues there for their unflagging interest in John Dee, and stimulating criticism and assistance, and also to Dr. D.P. Walker for so carefully reading and correcting the various drafts of this study and for many valuable discussions.

THESIS ABSTRACT

¹Practical Criticism. Introduction p. 8, London 1929.

The present work is the first reasonably complete and large-scale survey of the speculations and achievements of the most eminent man of science of Elizabethan England. It is based on a study of all Dee's traceable printed works and surviving manuscripts. Though biography has been throughout only a secondary consideration, new materials discovered during the investigation — information hitherto unknown, neglected, or generally inaccessible — has usually been fairly fully incorporated, while an attempt has been made, for the first time, to provide full and detailed reference and documentation for the sources of all establishable facts concerning Dee cited here, and the bibliographies contain what it is believed is a fairly comprehensive catalogue of such works as make any significant mention of him. The general theme and purpose is to locate Dee within a sixteenth century current of scientifically orientated "neo-Platonism," the distinguishing characteristics of which are discussed in an introductory chapter (and which, it is argued, made important contributions to the development of scientific theory and practice), to exhibit him as a thoroughly representative though outstanding champion of such mathematical idealism in this age, and to reveal a unity in outlook, aims and methods informing the apparent wide variety of his multifarious endeavours, by tracing their organic connections with his central philosophical position. Major fields in which his attentions were especially engaged — mathematics, cabalism, astronomy, astrology, "alchemy," "natural magic," etc. — are considered in a framework of prevailing contemporary opinions and controversy, and Dee's particular theories and investigations regarding these, in relation to the fundamental metaphysical principles he embraced. The sources, specific contents, character and influence of his various writings are examined in detail, though a full treatment of the *Preface* Dee contributed to the *English Euclid* of 1570, and of the Euclid itself, in these respects, as well as an account of its considerable importance in the Renaissance of mathematical studies and also for more general scientific development, has had to be reserved as the subject of a second, subsequent study, owing to the unavoidable bulkiness of this initial survey.

LIST OF ABBREVIATIONS FREQUENTLY USED IN TEXT OR NOTES

Aphorisms, the	:	Dee's Προπαίδευματα Αφοριστικα, 1558.
B.M. Lib.	:	British Museum.
C.R.	:	Dee's Compendious Rehersall (in Chetham Misc. I. 1851).
Diary, the	:	The Private Diary of Dr. John Dee Ed. Halliwell 1842.
F.R.D.	:	Dee's Famous and Rich Discoveries (M.S.)
G.A.	:	Robert Recorde's Grounde of Artes (1543) etc.
G.R.M.	:	Dee's General and Rare Memorials pertayning to the perfect art of Navigation 1576.
H.L.B.	:	Huntington Library Bulletin.
H.L.Q.	:	Huntington Library Quarterly.
J.H.I.	:	Journal of the History of Ideas.
Monas, the	:	Dee's Monas Hieroglyphica 1563.
N.Q.	:	Notes and Queries.

- Preface, the : Dee's preface to the English Euclid 1570.
- R.C.P. Lib. : Library of the Royal College of Physicians.
- T.F.R. : A True and Faithful Relation of what passed...
between Dr. Dee....and some spirits.
Ed. M. Casaubon 1659.
- T.I.S. : Cudworth's True Intellectual System of the Universe.
(1743 ed.)