

CHAPTER IV.

FROM REFORMER TO CATHOLIC: DEE'S RELIGIOUS POSITION AND CONTEMPORARY METAPHYSICS (1548-1556).

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Appendix (following notes) Facsimile and transcript of Ashmole
M.S. 337 ff 56-57.

CHAPTER IV

I. In the summer of 1548 Dee returned to Louvain, where he remained two years (1). It is perhaps of interest to note, as an indication of the geographical shift in the centres of scientific studies, that apart from one visit to Urbino to confer with Commandine, on a specific publication (followed probably by sometime in Rome), Dee's travels, undertaken for very serious, if undefined, purposes (2), were invariably made in the Low Countries, or the Empire; here, and at Paris, were also the majority of his foreign acquaintances, correspondents and University connections. Dee was to receive many letters from "noble lovers of good learning" in Verona, Padua, Ferrara, Bononia and Rome (3), but the Italian universities, with the partial exception of Padua, which enjoyed under the protection of the Venetian Republic, a greater measure of freedom and independence than the rest, and attracted to itself, particularly on account of its medical school, numbers of English and other foreign scholars, displayed in this period little interest in the new sciences (4). Italy, in many cases the first to produce in print editions of classical scientific works, gave small attention to their actual study of further development; even Italian neo-Platonists display little interest in mathematics, apart from the use that may be made of number in "Pythagorean" or mystical speculations (5), and Italian mathematicians for the most part show little discontent with the general Aristotelian picture of the world. The reverse was true in Germany and the Low Countries, an effect partly assisted by the more recent foundation of many of the Universities there; typical is the statutory declaration at Wittenburg that mathematics were to be taught to all students, one reason being that without them the works of Aristotle were not to be understood (6). (The movement under Edward VI to reform Oxford and Cambridge was perhaps in some measure an attempt to bring them into conformity with continental instruction.) Moreover in some cases attempts were made to integrate academic research into the practical life of the community. Bishop Wilkins pointing out the advantageous effects of this, cites continental practice as one example for "Ramus hath observed, (Schol.Math.1.7) that the Reason why Germany hath been so Eminent for Mechanical Inventions, is because there have been publick Lectures of this kind instituted amongst them, and these not only in the Learned Languages, but also in the vulgar Tongue, for the Capacity of every Unlettered Ingenious Artificer." (7) Dee among others, was to lend his influence in support of instituting similar instruction in England, proposals realised in some measure in London at the end of the century. Germany had early become the centre of the new astronomy through the work of such men as Peurbach, Regiomontanus, and Apianus, and in other respects it enjoyed an era of intense and original mathematical productivity, particularly in various fields of applied mathematics, of which the activities of Duerer — whose works exercised considerable influence on both Recorde and Dee — are an example (8).

At Louvain Dee records that he "did, for recreation, look into the method of the civile law, and profited therein so much, that in antimonyes, imagined to be in the law, I had good hap to find out (well allowed of) their agreementes; and also to enter into a plaine and due understanding of divers civill lawes, accounted very intricate and darke." For these services he received a testimonial from the University (9), but the only evidence as to the extent of Dee's knowledge of this subject that remains is supplied by the various references to legal problem she makes in later writings, which are all related to attempts to demonstrate how necessary it is, even in this sphere, to have an understanding of mathematics; as in dealing with questions of price regulations, or avoiding the errors of the glossators on the various manners of dividing inheritances, and also in framing correct ideas of the true natures of abstract Justice and Equity.

Dee's fame and the number of his distinguished foreign acquaintances increased rapidly. Various noblemen came to visit him from the court of Charles V, then at Brussels. But he declined, as did Gemma Frisius at the same period, an offer to enter the service of Charles; the first of the five Emperors, under whom, as he later reminded Elizabeth, he might, had he so cared, have had a highly salaried position. Others, "with strange and no vulgar opinion, settled in their imaginations, of my skill," came from Bohemia; and from Denmark arrived "Mathias Hacus, Danus, Regis Daniae Mathematicus; Joannes Capito, Medicus Regis Daniae, and a good mathematician also." Here too began Dee's long friendship with William Pickering (10), later ambassador in France and Germany, and in the early part of her reign seriously considered as a suitor for Elizabeth's hand. A strange optical glass belonging to him is described in the Preface, which he seems subsequently to have given or bequeathed to Dee, who exhibited its wonders to Elizabeth and finally left it with Kelly on the Continent, perhaps as a gift for transmission to Rudolf II (11).

Pickering, although some ten years older than Dee, and himself a graduate of Cambridge,

where he had been one of the young men who took up Cheke's new pronunciation in Greek, came now to Dee for instruction not only in astronomy and the use of instruments but also, it is of interest to note, in arithmetic, rhetoric and logic (12).

In addition to his studies, tutoring, and conferences with his many visitors, Dee still found time in his last year at Louvain to compose a work in twenty-four books entitled Mercurius Coelestis. As so many of Dee's writings, this is now lost and its contents a matter of conjecture. Mercury, whose sign forms the most important constituent in his hieroglyph of the monad, remained for him always an imaginative symbol — its meaning only too often thoroughly arcane — for concepts he professed to regard as of the utmost importance. His use of the symbol comprehends, but has more extensive reference than, the qualities conventionally associated with the classical, alchemical or astrological mercury (13). The implications of Dee's usage — his praise of "this mercurial dianoia" in the Preface accord fairly closely with the adoption of Mercury in early neo-Platonic writings as a representative of the divine reason of things, the creative power — especially in the form in which this is accessible to the intellect — which sustains and directs the universe (14). But an immediate source, or inspiration, for the surviving works of Dee can be found almost invariably in Roger Bacon, for whom he had an inordinate admiration, manuscripts of whose works he collected with assiduity, and whose teachings he, in his own works, consciously sought to revive and propagate; and Bacon, though largely unaware of the subtleties of the neo-Platonic view of Mercury, adds another, and theologically important attribute, which Dee may also have involved in his own interpretations of this symbol. Bacon, following Albumazor, expounds a view of history as a series of epochs, or cycles, produced by the successive conformations of the heavens, which latter could be particularly correlated with the rise and fall of religions. It was a theory held in various forms by many of those to whom Dee gave particular attention, Trithemius, Agrippa, Cornelius Gemma; and one which, if the pronouncements of Kelly's "Angels" on this topic be regarded as a more elaborated reflection of Dee's own views, as they very often were on other matters, may be supposed to have been held by Dee himself. Bacon proceeds and Dee nowhere exhibits a disagreement or dissension from any of his positions, to deduce the course and nature of the great religions of the world from the qualities of the particular planet he ascribes to each. Mercury (15) which has its potencies all in Virgo, signifies Christianity. (It was, he says, one of its conjunctions in the twenty-fourth year of Augustus that caused Ovid — in the work concerning the change in his life — to break forth in admiration of the sect of Mercury destined to be introduced into the world by a prophet without human father, born of a virgin.) "Mercury always has reference to deity and to the oracular utterances of prophets, and to belief in prayer." "The law of Mercury is harder to believe than the others and contains many difficulties beyond the human intellect. This is in keeping with the difficult motion of Mercury, whose circuit is in an epicycle and in an eccentric circle and in a concentric one...and they (the motions) are more wonderful and more difficult than all the motions of the planets....For this reason he has reference, as they say, to the law that contains difficult articles and hidden truths of which kind is the Christian law...he indicates (because he signifies also writing, and learning) that this law will be defended by such authentic scriptures and by so many profound sciences and by such potency and eloquence that it will always remain firm in its own strength until the final law of the moon shall disrupt it for a time." Certainly the general tone of this, and method of argument is reminiscent of Dee's in the Monas where a correspondence is established between the parts of his hieroglyph and stages in the life of Christ, and in which the general exaltation of Mercury perhaps casts slight retrospectively on this lost work composed at Louvain. Dee may also have taken hints for his work from Paracelsus' writings (16) in which Mercury was spoken of as that spirit above nature by reason of which all things exist and was even equated with the Joanine word.

In July 1550 Dee proceeded to Paris where "(for the honour of my country I did undertake to read freely and publicly Euclide's Elements Geometricall, Mathematice Physice et Pythagorice; a thing never done publicly in any University of Christendome." He claims novelty for his methods of exposition; for "by the first foure principall definitions representing to the eyes (which by imagination onely are exactly to be conceived) a greater wonder arose among the beholders, than of my Aristophanes Scarabeus mounting up to the top of Trinity Hall in Cambridge."(18) The preface to Orontius Euclid (1544) informs us that Paris candidates for a degree were required (by a regulation of 1536) to give a most solemn assurance that they had attended lectures on the first six books of Euclid (Dee confined himself to books I and II) (19). No other test than this declaration on oath was imposed; moreover if one may judge from the "Euclid" Ramus prepared for university purposes (Paris, 1549) which consists of nothing but the bare enunciation of the propositions, the degree of knowledge expected was not necessarily very high. Dee's audience however far exceeded the capacity of the mathematical schools of Rheims College.

The three levels on which he treated his subject recall the familiar "three worlds" of the Hermetics — which underlie the scheme of Agrippa's Occult Philosophy and more particularly the specific cognitive interpretation Dee gave this doctrine in the Preface, where the central theme is the insistence on the mind's potentialities for descent to things physical or ascent to things divine, when it has become fully acquainted with the mediant realm of things mathematical, natural to itself. But the trichotomy later became so usual (Browne's Quincunx is "artificially, naturally and spiritually, considered") (20) as to lose any precise metaphysical import. Dee's methods of "physical" exposition are perhaps those represented so frequently in the Euclid, where, strictly distinguishing this from demonstration, sensible "tests" of propositions or intuitive illustration of axioms are suggested and cut-out paste-board figures which can be moved over the plane, superimposed on each other, or turned over, are employed. Of his Pythagoreanising the Monas which will be examined later, offers an example.

The bare list of the few selected names Dee mentions as among the many who sought his acquaintance in Paris at this time and with whom he enjoyed some intimacy is impressive in its scope; there were he says some 40,000 "accounted students" at Paris and among these "very many of all estates and professions were desirous of my acquaintance and conference as Mizaldus, Petrus Montaneus, Ranconetus, Danesius, Jacobus Sylvius, Jacobus Goupylus, Turnebus, Straselius, Vicomercatus, Paschasius Hamelius, Petrus Ramus, Gulielmus Postellus, Fernelius, Jo. Magnionus, Johannes a Pena "&c." (21) Fernel, it may be noted, had a few years previously been compelled to give up his mathematical studies on account of the expenses they entailed in this age and the lack of return they brought and to devote himself to the more immediately profitable practise of medicine (22). Pena's views seem to have been similar to Dee's own; he was one of the most promising pupils of Ramus, who wrote that he had devoted himself to the study of mathematics "ut ardentius aut flagrantius nihil unquam viderim," (23) he found in optics the pattern for the applied sciences, and Kepler later mentioned him in the *Dioptrica* (1611) (24) as the chief of those earlier thinkers who had arrived, by long chains of inferences and abstract reasoning, at correct conclusions about the nature of the moon, and had dared to maintain that it was no smooth chryalline sphere of some unearthly substance, but was similar in its surface irregularity and in composition to the earth (facts, said Kepler, which were now at last made evident to the sense by Galileo's telescope). Dee recurs several times to his friendship with Orontius Fineaeus: though the first Royal Professor of Mathematics, in France, Fine has usually been judged harshly by posterity, while better scholars than himself, such as Pedro Nunez, did not scruple in his own day to brand him as a pretentious ignoramus, and castigated the palpable errors in the works he produced, claiming to have solved all three of those hoary problems, the squaring of the circle, duplication of the cube, and trisection of the angle. Nevertheless despite the deceit, or vanity, which led him to continue to reprint these books with no reference to the criticisms that were levelled at his solutions, his reputation seems to have been high, and his general influence beneficial, and Ramus praises him for being the man originally responsible for the Renaissance of mathematical studies in France (25). Dee refused several positions in the houses of private gentlemen, as well as that of Mathematical Reader to the French King with a stipend of 200 crowns at this time (26). He returned to England in 1551, and was recommended by Cheke to Cecil and Edward VI, an event he seems to have anticipated, since one of the two treatises he composed for the king's use is dated 1550. This was De usu Globi Coelestis followed the next year by the second, De Nubium, Solis, Lunae, ac reliquorum Planetarum, immo ipsius stelliferi Coeli, ab infimo Terrae Centro, distantiiis, mutuis intervallis, et eorundem omnium Magnitudine liber. He received from Edward a pension of 100 crowns, which was exchanged in March 1553 for the rectory of Upton upon Severn, to which Long Headenham was added later in the year; the two having together an annual value of £50 (27).

II. Under Edward, Dee seems to have been attached to the group of scholars and humanists who had suddenly come to have considerable influence in state affairs, and who had attempted a thoroughgoing reform of University education. This, it is true, had perhaps been somewhat hastily devised and peremptorily enforced, so that much confusion and disorganization resulted, aggravated by the Visitation which preceded the promulgation, and which, as its reports witness, busied itself mainly with a strict enquiry into particularities of religious observances, and carried out extensive purges in the various colleges, expelling many of the older fellows and putting younger men in their places. Nevertheless theoretically, in its aims and broad outline, the new dispensation appears to accord closely with the views Dee in general advocated. In the student's first year mathematics was now to be taught, in the second dialectic, in the third and fourth philosophy. The further three years course necessary for an M.A. degree included philosophy, astronomy, perspective and Greek (28). To hold the study of mathematics to be a necessary preparatory discipline to dialectic — as Dee, Recorde and others suggested it was — even though not advocated for such reasons as Plotinus urged, that it was only thus the philosopher could become properly familiar with incorporeal essences (29) — was usually taken at the time as indicative of a Platonic standpoint, certainly of one divergent from Aristotelianism, and the new statutes did in fact order the reading in philosophy of the works of Plato equally with those of Aristotle, Ptolemy, Euclid, Strabo, and Pliny were also prescribed, and arithmetic was to be now taught from modern "algoristic" text books — those of Tunstall and Cardan. (Cardan was himself resident in Cheke's London house in 1552 and it seems that Dee, to whom he was in many points not dissimilar in personality or interests though their philosophical views differ fundamentally, made his acquaintance at this time (30).) Cheke had a number of copies of Euclid distributed at his own expense to the students of St. Johns, and despatched Buckley to that college to lecture on arithmetic and geometry. Dee was offered, but declined a similar post at Oxford (31). But the new order was swept away under Mary, and its innovations set down to the "sensuall mindes and rashe determinations of a few men." Constitutions drawn up in 1558 reaffirm that, although Porphyry and Rudolphus Agricola might be utilised as well as Aristotle, "all other dialectics should be rejected," and "that in natural and moral philosophy Aristotle only should be read." The conservative revision effected by Elizabeth's statutes of 1564/1565 reverted to, or rather confirmed, a pre-Edwardian curriculum, with grammar, logic, and rhetoric as its B.A. course, considerably abridging the time occupied on "philosophy, making Greek no longer necessary for the M.A. and allowing Boethius' arithmetic in place of Tunstall's, and Witelo's Perspective in place of Euclid; and those of 1570, which continued the complete exclusion of mathematics from undergraduate studies, remained in force until 1858. Had the Edwardian design succeeded it might well have done much to bridge "the gap between the Latinized university doctors and the "uncouth" teachers of arithmetic, technicians and book-keepers of the commercial cities (which) existed to the disadvantage of both throughout the 16th century and later." (32) Mulcaster, one of those who, then at Cambridge, received one of Cheke's Euclids (and also a Xenophon) years later praises Cheke's attempted reforms of this period, and advocates the establishment of a college of mathematics, defending and urging the advantages of this knowledge in phrases which closely parallel Dee's Preface; he lists the many trades not granted the title of learning, in which it played a great part and had been responsible for many inventions. "Then gather I" he argues, "if bare experience, and ordinarie imitation do cause so great things to be done by the meere shadow and roate of these sciences, what would judiciale cunning do, being joined with so well affected experience?" (33)

Dee's relations with court circles at this time seems chiefly to have been with the extreme religious reform party. An entry, among other memoranda he entered on the errata page of a work of Cardan's, states that he entered the service of Pembroke in 1552 (34). Subsequently he would appear to have been attached to the household of Northumberland, Lord Protector and Chancellor of Cambridge University, since in the Preface he celebrates the memory of Northumberland's eldest son John, Earl of Warwick, who had married Seymour's daughter, as one "thoroughly known to very few" but whose "Heroical Meditations, forecastings and determinations, no twayne (I thinke) beside my selfe, can so perfectly, and truely report." The Earl of Warwick, to whom the Ramist Thomas Wilson dedicated The Art of Rhetoriqua in 1552, and whose early death the Preface laments (for though pardoned, after being condemned with his father in 1553 he died in prison the following year aged 24), Dee especially lauds for the pains he took to reduce military organisation and tactics to geometrical or arithmetical rules, which were then inscribed on vellum "and all these Rules and descriptions Arithmetically, inclosed in a riche Case of Golde, he used to weare about his necke, as his Juell most precious, and Counsaylour most trusty. Thus, Arithmeticke, of him, was shryned in gold: of Numbers fruite, he had good hope. Now,

Numbers therefore innumerable, in Numbers prayse, his shryne shall finde."(35) At the request of the Duchess of Northumberland Dee wrote two works for her in 1553. The true cause and account (not vulgar) of Fluds and Ebbs (36) and The Philosophicall and Poeticall Original occasions of the Configurations and names of the heavenly Asterismes. This last subject frequently formed part of regular astronomical instruction. Thus Thomas Hood, Mathematical Lecturer to the City of London, adds to his handbook of practical instruction, The Use of the Celestial Globe in Plane (1590), a description of the "Nature and the poeticall reason of each several Constellation." Nor was such addition necessarily made, as is perhaps the case with Hood, merely for pleasure rather than for edification (though the subject was a popular one for such purely "literary" productions as Christopher Middleton's Historie of Heaven 1596); much of astrological dogma might be deduced from such considerations; Dee looked upon the ancient poets as prophets and sages; their works were to be interpreted, after the manner of Porphyry's exegesis of Homer; they should be considered as receptacles of secret wisdom, and the Pagan gods, their names and myths, not as arbitrary fancies, but as obscurely signifying genuine information in natural philosophy — as being as Cusa and other Christian Platonists had held (37), neither fictions, nor deceits of the devil, but powers or aspects of God discovered and worshipped by the ancients in the created world. The configurations of the constellations, the signs by which men represented these and the planets, Dee believed were not random or conventional, but symbolised deep natural and religious truths — this is the central premise in his analysis of some of them in the *Monas*. It may be also not wholly a coincidence that this same year, 1553, Postel in Paris produced a work with a similar title to Dee's, in which he treats the whole subject as being of the utmost philosophical importance (38); Postel and Dee had perhaps discussed the topic together during their acquaintanceship of 1550.

In London at this time Dee had made connections — which were to increase in numbers throughout most of his life — with navigators, instrument makers and practising craftsmen, and his interest in turning his knowledge to practical account and the solution of technological problems has already awakened. Thus in 1553 besides his Aphorismi Astrologici 300, he composed Astronomicall and logisticall rules and Canons, to calculate the Ephemerides by, and other necessary accounts of heavenly motions: written at the request, and for the use of that excellent Mechanicien Master Richard Chancelor, at his last voyage into Moschovia. He also made with Chancelor numerous astronomicall observations, employing instruments of an unusual size and incorporating a new device allowing of fractional readings (39). This was the use of transversals, the invention of which Digges attributes to Chancelor and which he describes in the Alae of 1573. They cannot have become public knowledge, for Tycho Brahe also claimed to have originated the device in 1564, but it had had at least in theory a much longer history, the suggestion dating back to Levi ben Gerson (d. 1344) and was later claimed to have been known to Peurbach and Regiomantus, though the first printed description is probably in Puehler's Geomatria of 1561 (40). A not unrelated idea (which is also perhaps a remote ancestor of the Vernier) was known to Dee from Pedro Nunez's De Crepusculia of 1542, where (41) it is suggested that the astrolabe be inscribed with 44 concentric quarter circles, the outer edge marked off as usual into 90 whole degree divisions, the first inner arc into 89, the second into 88 and so on; theoretically this would allow of such exact readings of results that the only source of significant error would be the original observation; but it is doubtful whether such an instrument could have been constructed with any accuracy. (Dee and Chancelor may have utilised the data they obtained in the preparation of an Ephemeris, but Dee's expression concerning their observations is ambiguous and probably does not imply that he brought out tables himself in 1554 and 5 — which would if this were in fact the case, be Dee's first printed works (42)). Such practical preoccupations may have contributed to his refusal in 1554 of the offer of a readership in Mathematics at Oxford, but his reasons according to Smith (43) were that he regarded such a position as too public, wished his life rather to become more solitary and retired, and that he had a disinclination to be tied to one narrow place but desired freedom to travel.

An indication that Dee already enjoyed some reputation at this time is provided by the otherwise rather inaccurate entry in Bale's "Catalogue of British Writers," an entry made some time during this decade, and probably before Dee's only too widely publicised association with Bonner, whom Bale designated in the title of a work of 1561 (A declaration of E. Bonner's articles...) as "that execrable Antychrist." The entry runs "Joannes Dinus seu Deus, astronomus peritissimus, in Italia ac Parisijs studens, pleraque edidit."(44) Another indication is the invitation he is said to have received from Mary after her accession in July 1553 to cast her horoscope (45); his long continued friendship with Elizabeth also dates from this time, as after rendering her the same service (46) he remained in correspondence with her while she resided in Woodstock and Milton.

III. In 1555 Dee met with the first of the major misfortunes of his life, echoes of which followed him long after, and were even perhaps contributory to his difficulties in Manchester at the close of the century. Though the initial accusation was of another sort, political and religious considerations probably entered into the investigations; for a number of Dee's associates were in similar trouble at this time: Pickering had been indicted for treason while still abroad in 1554; Day, "the English Platin," who brought out Dee's later works including the English Euclid, was imprisoned for a time with the martyr Thomas Rogers and then took refuge on the continent; Cheke who had served as one of Lady Jane Grey's secretaries of state, though pardoned after his first imprisonment, was rearrested in 1556 and only released from the Tower after a public recantation of his protestant opinions (47). On the 28th May the Privy Council (48) directed "A lettre to Sir Fraunces Englefelde to make search for oone John Dye, dwelling in London, and to apprehend him and send him hither, and make searche for suche papers and bookes as he maye thinke may touwche the same Dye or Beger."(49) A private letter of June 8th (50) states that Dee, Cary and Butler, who calculated the nativities of the King, Queen, and Princess Elizabeth, were apprehended on the accusation of one Ferys whose children had thereupon been struck, one with death, the other with blindness. Dee adds the name of another accuser, writing that he was imprisoned "Upon suspicion of which my service then, (i.e., `some travailles he had made on Elizabeth's behalf') and upon the false information given in by one George Ferrys and Prideaux (51) that I endeavoured by enchantments to destroy Queene Mary."(52) He elsewhere states that "a certain Doctor" whom in Paris he had "used with friendship and humanity," now proceeded to urge the Lord Chancellor "with whom he could do very much" that Dee "bee kept in Perpetuall Prison."(53) Dee was first examined by Sir John Bourne "the Secretary to the Queene...an especiall stirrer up in suche cases [Foxe is here speaking particularly of heresy investigations], yea and an entiser of others of the counsell, who (if for feare they durste) would have bene content to have lette suche matters alone," (54) and Bourne Dee later speaks of with much bitterness, numbering him with the slanderous informers who have troubled his life as one actuated by deep seated malice towards himself. Dee answered to four and then to eighteen articles submitted to him by the Privy Council, and was then committed to the Justice of the Common Pleas (55) and later appeared before the Star Chamber. Though Dee's horoscope casting had received royal encouragement it remained of doubtful legality, for the stringent laws against sorcery of 1541/2, declaring this crime a felony without benefit of clergy, were accepted as covering all forms of astrological predictions (56), though they do not seem to have been enforced except when the prognosticator was rash enough or so unwary as to touch upon matters of state. A further letter of the 5th June from the Privy Council (57) authorised certain persons "to proceede to a further examinacioun of Benger, Carye, Dye and Felde (an astronomical coadjutator of Dee's to whose Ephemeris Dee later contributed a prefatory letter) uppon suche poyntes as by their wisdomes they shall gather out of their former confessions towching thiere lewde and vayne practises of calculing and conjuring"; all persons found to be concerned with them were to be immediately arrested. Dee cleared himself of the original charges and was handed over to Bonner's custody for an examination on points of religion. On the 29th August were despatched (58) "a lettre to the Master of the Rolles to cause Carye, remaying in his custodie, to be bounde for his goode a bearing betwist this and Christmans next, and fourth comyng when he shal be called, and thereupon to set hym at libertie," and "a like lettre to the Bishop of London for John Dee."

In later years Dee used to say of this event "I was prisoner long and bedfellow with Barthlet Grene who was burnt" (59) and he recurs several times to his imprisonment with this martyr. The statement has been generally repeated and the references in Foxe to "Master Dee Bachelor of Divinity" and Bonner's chaplain have in consequence sometimes been put down to error, or as referring to another person of the same name (60) or as the results of gross exaggeration. However, though Foxe's accuracy in matters of detail has sometimes been impugned (61) yet the accounts of Dee's activities, after his release, in Bonner's household that are given in Acts and Monuments in the Latin version of 1559, and the first two English editions, 1563 and 1570, are quite specific and are reproduced by Foxe from a number of independent sources; descriptions rendered by those who came into contact with Dee or were in correspondence with those that did at this time. Moreover Dee's own statement of the case are misleading, thus the sentence in which he speaks of his imprisonment with Green, just quoted, continues "and at length upon the King and Queenes clemency and justice, I was (A.1555 Augusti 19) enlarged by the Councells letters; being notwithstanding first bound in recognizance for ready appearance and the good abearing for about some four months after." Yet Barthlet Green who like Dee had originally been arrested on a charge of treason was not passed over to Bonner for religious examination in Bonner's household at which he shared a chamber with Dee — who must then have been

nominally a free agent — until Nov. 1555 (62). Further evidence of Dee's good relations with Bonner now, "his father in Christ," and that he remained with him after his release, is provided by an entry he made in a mathematical work he was studying at this time (63). Dee's protests against Foxe's statements, apparently procured their suppression from the third and fourth editions of Acts and Monuments in 1576 and 1583, but before describing these complaints a summary, noting later modifications made in the texts, is desirable of Foxe's account of Dee's service as one of Bonner's chaplains, in which capacity he is presented as a ready instrument in heresy hunting.

A certain Robert Smith supplied Foxe with an account of his first examination before Bonner in November 1555. Afterwards in the garden "there cometh one of my lord's Chaplains that much desired to commune with me" and "This was Dr. Dee a conjurer by report." (64) Dee began "I do much desire to talk with you lovingly, because ye are a man that I much lament"; an argument developed in which, as Smith reports, Dee was rapidly driven into absurd contradictions in maintaining transubstantiation, whereupon "he made many scoffings" and departed; afterwards, "we were baited of my lords band almost all the day." At the seventh examination of Philpots on the 19th November this year, Bonner's words are given as "Master Philpot I charge you to answer unto such articles as my chaplain Master Dee and my registrar have from me to object against you." If accurately reported, there followed a sorry exhibition of browbeating on the chaplain's part. A sharp argument about the teachings of St. Cyprian (in its bearings on the authority of the pope) which Philpots describes as going very much in his own favour, was concluded by a reproof administered by Philpots, which indicates that the Chaplain, though perhaps an allowed authority in other fields had taken but recently to Theology: "M. Dee: You are young in divinity to teach me in the matters of my fayth, though you bee lerned in other thyns more than I, yet in divinitie I have been longer practised than you, for anything I can heare of you, therefore be not too hasty to judge that you do not perfectly knowe." (65) As to Barthlet Green, a passage describes an interrogation of Philpots about a letter he was supposed to have written describing Green's imprisonment in which it was said "that he was first committed to Dr. Chedsey and after to Dr. Dee the great conjuror"; whereupon Bonner exclaimed "he hath written a shameful lie that he was in Dr. Chedsey's keeping," which was confirmed by Chedsey who was then present, but Bonner's only recorded remark on Dee here, was when he turned to the other "judges," saying "How think you my Lords is not this an honest man to belie me and to call my chaplain a great conjuror (my Lord of Durham smiled thereat)." (66) Green himself wrote to Philpots that after an examination on November 17th, in which his caution of expression had aroused hopes of his ultimate conversion, "then was I brought into my lordes inner chamber (where you were) and there was committed to Maister Dee, who entreated me very frendly; that night I supped at my Lordes table and lay with Maister Dee in the Chamber you did see." (67) But, proving obdurate, his treatment became much harsher — finally he was shut up in Bonner's notorious coal cellar — and a friend of his wrote to Philpots, though the mention of Dee in this place may not be justified, in the light of Green's own words: "They have not onely taken from him such libertie of bookes (as previously), but all other bookes, not leavinge hym so much as the newe Testament, and have sythens committed him in chamber to Doctor Dee the great Coniurer. Whereunto conjecture you sithens they have bayted and used him most cruelly." (68)

The accusations made against Dee in this year would seem to form the initial occasion for what Dee, writing in 1576, calls "this very Iniurious Report (for these XX yeres last past and somewhat longer) spred and credited all this realm over that the Foresaid Gentleman (i.e., himself) is, or was, Not only a Coniurer, or Caller of Divels, but a Great doer therein: yea the Great Coniurer and so (as some would say) the Arche Coniurer of the whole kingdom." (69) That the mentions of him in Foxe did his reputation much damage would appear from this same passage; for Dee complains that the powers of evil have so worked against him that "divers untrue and Infamous Reports, by their Sinister Information, have bin given up to such, as have gathered Records of those Men's Acts who died in the Cause of Veritie....and credited by reason of the Dignity of the places wherein they were installed," and he complains of those who "counterfit letters or discourses, answerable to the foresayd fowle untruthes, unadvisedly recorded" (70). In the next paragraph he again returns to the complaint of how "this slanderous untruth" has been published, spread and finally credited "in respect to the honorable seat, wherein, it was (very unadvisedly) set downe. In dede, even he: who at the beginning sayd Ascendam in coelum, etsimilis ero altissimo; even he, hath settled this intolerable sklander of the virtuous, among the glorious renown of the righteous." The reference to Foxe is unmistakable; the report, says Dee, was originally "rashly and even thus recorded, when this courteous gentleman was also a prisoner himself: (and bedfellow with one Maister Barthelet Greene)" and wishes it "utterly cancelled, or razed out of all records." This protest was effective for when the third edition of the Acts and

Monuments appeared this same year all the offending passages were omitted, or modified in such a way that Dee's identity with "one of Bonners Chaplains," who was no longer described as a conjurer, was not apparent (71). But the "untruth" of the accounts of which Dee complained would largely seem to be in the recurrent epithet of "conjurer" rather than in the factual narrative of his activities (72). Perhaps the only objection that could now be made as to Foxe's account, is the undecided question as to whether Dee possessed a degree in divinity or had been ordained. That he held, as an absentee, livings from Edward and Elizabeth, is of little moment, for many others did so, without being clergy and without having in consequence the right to administer the sacrament. Indeed in 1576 later in the work in which he protested against Foxe's reports, Dee seems flatly to deny it. After quoting a text he goes on "Syr, pardon me I pray you: for though I meddle not with the Mysticall and Spirituall sense, hereof: (for I am neither Doctor nor Bachelor of Divinity, no nor of any calling Leviticall)" (73). But this may be a mere convenient quibble in which Dee takes advantage of the literary device he is employing — for the writer is supposed merely to be a humble "Mechanicien" reporting conversations had with Dee, the Philosopher; the statutes of Manchester College, of which he became Warden in 1596, state categorically that the "College" (or Collegiate Church) was to consist of "One Warden, priest by degrees bachelor of divinity, four fellows, priests...." etc.(74)

Dee was then bedfellow to Green, as he claimed, but as keeper rather than fellow prisoner, nor does Green appear to have been under much duress and discomfort; his account of his treatment at this time indeed throws light on the conditions under which Dee may be supposed to have lived in Bonner's household, which approach the luxurious, for Greene's letter continues, after his statement that he was put in a chamber with Master Dee." "On the morrow, I was served at dinner from my lord's table....I had my liberty within the bounds of his lordships house: for my lodging and fare, scarce have I been at any time abroad in better case so long together, and have found so much gentleness of my lord, and his chaplains and other servants, that I should easily have forgotten that I was in prison, were it not that this great cheer was often powdered with unsavoury causes of examinations, exhortations, posings and disputations."(75) It was probably after his release in August and when living with Bonner — rather than in the short time between the beginning of the year in March and his arrest in May — that Dee composed a work in 1555 — "volumen magnum, sexdecim continens libros" — with the highly suggestive title de Acribologia Mathematica, which might seem to imply that it was a work on the foundations of precise mathematical method. The work is now lost, but there is however a brief mention of it by Dee in 1570, which shows that it contained an analytic catalogue; though it gives no clue to Dee's treatment of these, of various geometrical "entities" or concepts. The mention occurs when he suggests that the title of a supposedly lost work of Euclid's, mentioned by Proclus, on which Dee is founding an argument for ascribing the work, passing under the name of Mahomet Bagdedinus, to Euclid, might be thought by some not to refer to the division of figures into parts "sed generam per differentias in species divisiones, veluti punctorum, linearum, angulorum, figuraru, & similiu divisiones methodicas, quales nos plures quam quingentas in nostro de scribologia mathematica, demonstrato opere exhibuimus."(76) Dee, it may be noted, was thrown, on Foxe's evidence, into close acquaintance with Tunstall, the first great English Algorist of the sixteenth century, whom Mary had restored to the bishopric of Durham, and who was very frequently present at interrogations conducted by Bonner, including some of those where Dee was also present. (Tunstall, even in Foxe's records, shows in a fairly amiable light, exhibiting some distaste for inquisitional duties which he escapes from on occasion, seeking to find forms that would allow a compromise at least in appearance between the accused and the authorities or to pacify the intemperance that frequently was provoked on both sides during Bonner's interrogations (77)).

IV. There were excellent reasons why Dee should wish to conceal in later years any association he might have had with Bonner, who was the object of widespread sentiments of hatred of intense virulence, that found frequent expression in print after the death of Mary, and the publication of Acts and Monuments (78). At the same time there is nothing inherently improbable in Foxe's accounts of Dee's activities, even of his functioning as Bonner's chaplain at this period, in so far as it is possible to reconstruct Dee's religious views. Whatever the ardour of his inner convictions Dee's life and surviving writings indicate that these never expressed themselves in outward fanaticism or immovable partisanship of particular creeds. He seems invariably to have pursued a policy of conformity with the official form of Christianity, prevailing in any locality in which he found himself — in his years on the continent between 1583-8, he apparently outwardly returned to catholic practises, though there is no hint in his "Spiritual Diary" at this time that he felt this to be in any way a departure from the religious principles governing all his previous conduct. Dee indeed betrays no concern at the fact that various public modes of worship, or openly enunciated and publicly received dogmas of various churches, exhibited dissimilarities or might be flatly antithetical, and one may with some probability suppose that he rather regarded them all as different vehicles of a single truth, of which they were inevitably loose and inexact expressions; they were separated but as spoken at a circumference which nevertheless led into one centre. Further, he was desirous of avoiding all impediments to his studies and researches that a too nice or inflexible adherence to any particular sectarian formulation might have provoked, and as many of his schemes demanded national support he was anxious to cultivate the favour of the authorities.

Dee described himself, as contrasted with his membership of the body politic of which he acknowledged Elizabeth to be the supreme head, as "a lively sympathicall, and true symetricall fellow-member, of that holy and mysticall body, Catholicklie extended and placed (wheresoever) on the earth; in the view, knowledge, direction, protection, illumination, and consolation of the Almighty" having Christ only as its single head (79). Dee was here making a profession of faith, to rebut slanders circulating about him, to the Archbishop of Canterbury, and though there is nothing in this description of the mystical unlocalised nature of the church, that was not compatible with Anglican Orthodoxy (80), nevertheless the terms Dee selects, so much less precise than might have been thought advisable on such an occasion, have suggestive affinities with doctrines of the "Invisible Church" as taught by such non-conforming suspiciously regarded figures as Christian Franken or Acontius. Unfortunately with the exception of an uninformative correspondence with Edwards (81) all Dee's theological writings such as (1558) (the title is interesting in its implied acceptance of a plurality of possible paths to truth) are lost. However from a variety of indications — incidental pronouncements in other writings or his selection or emphasis of certain philosophical arguments to the neglect of others — a fairly clear general picture in outline of Dee's view of the nature of religion, one not unusual to Renaissance neo-Platonists, can be arrived at. Such indications, some of which, will be apparent as marked features of his writings, when these are discussed in detail later, are an interest in the Greek patristic writers particularly Clement (82) contrasting with his relative neglect of the Latin fathers, implied by an absence of citations from them in his work; his acceptance of myths, as in the Monas, as allegories not merely of hidden natural truths but also of spiritual ones; his admission of the Greek and Latin alphabets almost to the same level of significance as the Hebrew (which was directly revealed by God) for Cabalistic analysis, and on this subject his remarks in the Prefatory Letter to the Monas on the two Cabalas, the one divine and innate in the minds of all men, the other more vulgar in which letters or figures, and concrete symbols were employed as means for discovering religious truths are also suggestive; his reverence for the hermetic texts and "ancient wisdom" generally, so that he will employ adjectives such as "druidical" (83) eulogistically to esoteric doctrines, as much to indicate his belief in their content as their supposed historical origin; his association with Acontius, whose Stratagemata Satanae of 1565 was not only a plea for complete religious toleration which represented the particularities of all sects; if upheld too firmly as snares of the devil, but was an attempt to distinguish between fundamental and accessory dogmas of Christianity, and the former which were absolutely necessary, Acontius reduces to very few (they do not include that of the real presence, or even of the Trinity) (84); his invariable emphasis on the intellect of man, especially in its activity of comprehending mathematical abstractions, as being specifically that which not only distinguishes man from the brute creation, but certifies that man's nature partakes in some measure of the divine, some of his declarations in this kind in fact led him into being accused, from a Calvinist standpoint, of pelagianism and neglecting the importance both of original sin, human frailty and grace (85); and assertion of the entire unity of truth, that all his own studies have therefore had a religious end in view, and that the acquisition of knowledge is a process that is essentially an ascent to God. "I have wonderfully labored," he wrote in his latter years "to finde,

follow, use and haunt the true straight and most narrow path, leading all true devout, zealous, faithfull, and constant Christian students ex valle hac miserae, et miseria istius vallis: et tenebrarum Regno: ad montem sanctum Syon, et ad occlestia tabernacula for it pleased the Almighty (even from my youth, by his divine favour, grace and help) to insinuate into my hart, an insatiable zeale and desire, to knowe his truth....by the true philosophicall method and harmony proceeding and ascending (as it were) gradatim, from things visible to consider of thinges invisible from thinges bodily, to conceive of thinges spirituall from things transitorie and momentarie to meditate of things permanent, by things mortall (visible and invisible) to have some perceivance of immortality, and to conclude most briefly, by the most mervailous frame of the whole world, philosophically viewed, and circumspectly wayed, numbred and measured (according to the talent, and gift of God, from above allotted, for his divine purposes effecting) most faithfully to love, honor and glorifie alwaies the Framer and Creator thereof." (86)

Two major lines of argument, often in practice inseparably fused, may be distinguished as usually accompanying in the Renaissance an advocacy of that type of eclectic universalism in regard to the nature of religion to which it seems probable that Dee's position should be assimilated. These may be briefly noted here for they embody important fundamental assumptions, and despite the comparative absence in his work of overt religious pronouncements, both these arguments are important for Dee's thought, and figure prominently in his speculations on other matters. One of these may be described as "historical" — an attempt to trace the provenance of all pagan thought, and thus justify the elements in it that could be conciliated with Christian doctrine — back to some warrantedly divine source; the other philosophical thesis asserted the universal accessibility of some part of religious truth to men in a manner which was not dependent upon their acquaintance with any particular revelation of localised historical origin. Neither necessarily involved any unorthodoxy, as is apparent from one of the most influential sixteenth century expressions of them — where they appear as is usually the case, very closely intertwined--Steucho's de Perenni Philosophia (87). In the seventeenth century, when only the second is perhaps usually encountered among serious thinkers and that generally diluted to a matter of common notions; serving as natural evidences for the truth of Deism, the first still receives learned expression in Cudworth's contention that the systems of Greek philosophy are really wrought out of piecemeal fragments of that "true Moschical philosophy" which the Greeks had once possessed entire. It is an argument which in so far as it was used to justify an interest in ancient cults or teachings of early Eastern or classic sages amounting almost to veneration, partly reflects that Renaissance temper that Earle satirised in the "Character" of the antiquarian: "He is of our Religion, because wee say it is most ancient: and yet a broken Statue would almost make him an Idolater." (88) The establishment of this justificatory genealogy for pagan learning, involved the tracing back of classic thought through various Eastern channels to some point where the patriarchs might be presumed to have originated it. This task was not particularly difficult, since for instance Greek testimony to the antiquity of Babylonian astronomical observation, to the Egyptian invention of arithmetic, and the admission of the derivation of their own science from these sources, were not infrequent (89), while Plato's account of Solon's discovery in Egypt (and Moses was often taken as the teacher rather than the pupil of the Egyptians) that the Greeks were a race of children, with no knowledge, worth mentioning, of antiquity, nor any acquaintance with ancient wisdom, could be pressed into service (90). Later, Diogenes Laertius attributed to many of the foremost philosophers long journeyings in the orient (and underlining the importance of barbarian religions for Greek philosophy he states that some believed it had its beginnings among the Magi, Chaldeans, Gymnosophists and Druids — or Holy ones of the Celts and Gauls(91)); while the spread of Egyptians' influence in late Hellenistic times produced innumerable corroborating assertions (92); and the equation of Hermes with Thoth and thence with Hermes Trismegistus was widely accepted in the Renaissance. An exaggerated estimation of the age of the Hermetic writings (22 editions of which were brought out between 1471 and 1641) allowed these to be regarded as the original doctrines which led on to Plato's or Aristotle's thought. Their author, Ficino believed, had lived at the time of Moses (93); others asserted that Hermes was the nephew of Abraham who had first introduced the arts and sciences, of which by revelation he was entire master, to Egypt (94) while as to their religious importance of the writings even Augustine, who suspected that Hermes had got his knowledge from devils, declared "This Hermes says much of God according to truth" and prophesied the coming of Christianity (95). Zoroaster could similarly be linked with biblical characters (he was most frequently conjectured to be Cham) on the one hand and classic thought on the other. Pico prided himself on the possession of "Zoroastrian writings in the Chaldean tongue," which, although it does not appear he ever succeeded in deciphering, he asserted to be of great mystical importance, and "in which" he further claimed, "those particulars

also which have been carried about by the Greeks, maim'd and miserably corrupted, are here to be read perfect and intire."(96)

This historical argument had made an early appearance in patristic writings. It is the Greek fathers especially — though Augustine had wondered in the individual case of Plato, because of certain coincidences of doctrine and expression, whether he must not have been conversant with the Jewish scriptures (97) — that give it full expression. Thus Clement makes the Jews the common fount of barbarian knowledge, compiling lists of Greek "plagiarisms" of Hebrew writings, and examples to show the dependency of Plato's ideal codes of laws on the books of Moses (98). To provide Greek philosophy with such roots meant in effect that it was to be regarded as disguised theology, its import as essentially religious; Science, for the pagan philosophers had been a covenant with God, according to Clement. (Indeed the inevitability of such an attitude, if great weight were placed on tracing such a continuity of thought from a Hebrew source, may be seen in the conclusion Roger Bacon leads up to after he has pointed out that Noah was the teacher of the Chaldeans, Abraham of the Egyptians, that Zoroaster was Noah's son, and the Greek gods were sages living at the time of Moses, that Plato had heard the preachings of Jeremiah and borrowed the creation in the Timaeus from Genesis: "Philosophy is merely the unfolding of divine wisdom by learning and art." (99)) That Plato's philosophy could be viewed as the embodiment of religious truths, generally dispersed about the world, was perhaps a necessary premiss to permit that incorporation of Plato's writings into the Christian framework the Greek fathers had wished to effect. Thus one of the extracts Eusebius cites approvingly from the work of the Pythagorean Numenius on the Good is "Qui hanc, inquit, in disputationem ingressus Platonis testimoniis obsignavit, eadem ab ipso quoque superiorem ad aetatem redeunte, cum ipsius Pythagorae verbis praeceptisque copulari oportebit. Gentes ei praelerea celeberrimae appellandae erunt, singularia que sacrificia, ritus, instituta quae cum Platonis omnino consentiunt, preferenda quotquot a Brachmanis, Judaeis, Magis, Aegyptiis sancita sunt."(100) The view was widely revived by Renaissance Platonists — indeed one of the features of Pletho's teachings and which had perhaps given definite form to the doctrine in the neo-Platonic philosophy in the west, had been the historical concept of a secret unbroken theological tradition underlying Greek philosophy, running back through Plato, Pythagoras, Orpheus, the Magi, Zoroaster, Trismegistus and so to Adam. It may be noted that a similar scheme frequently occurs in Alchemical writings, especially of a Hermetic type which claims Alchemy as the universal and most ancient science, in which writings Dee was deeply interested (101).

All this touches at many points a second line of argument, a mingling of stoic and Platonic elements, which led to that Renaissance view of the interrelation of creeds and systems which Dee takes almost for granted. It was based on the supposed innate capacities of man's understanding, and perhaps also implied that his nature in so far as it was able to comprehend, or achieve unity with the divine had not been irretrievably — that is apart from the special intervention of Grace — ruined by the fall. The eternal law of right reason, Cicero had declared in de Republica was written on the human heart, a saying even Lactantius hailed as "almost inspired."(102) This had only to be extended from ethical to intellectual and spiritual matters — as indeed the context with its stoic assumption of man as an integral part of a great national whole implied that it was meant to be — and we have Ficino's assertion that religion "is more common and more constant than all things and thus it is more natural than all things" and "the worship of God is as natural to man as neighing to the horse or barking to the dog."(103) Similar pronouncements are frequent among Renaissance Platonists (104), and specifically Christian, writings of this type — as in the case of Charron who was a firm Catholic, but in Les Trois Verites had distinguished natural, revealed and Catholic religion, and had admitted the possibility of virtue divorced from any particular religious practice (105). These were often drawn upon by later Deists. However in a neo-Platonic metaphysic this "religious faculty" implied usually much more than man's possession of good natural habits of behaviour or devotion, it was accepted as also implying man's ability to acquire intellectual knowledge and certainty as regards religious doctrine on a priori grounds, or by introspective investigation — in this sense however this "religious faculty" was not necessarily regarded as self-sufficient, as containing in itself all the springs of its own activity, rather was it awakened to activity by the experience it suffered so far as it was the passive recipient of "illumination" — which emanating from some external source was therefore not essentially inseparable from man, though, as a fact it might be judged to be unchangingly accessible to all (106). On the assumption, however, of man's ability in this respect, and ascribing — as would also seem necessary — an unvaryingly uniform constitution to the human mind — it is hardly surprising to find, for example, Pletho exhibiting, as the complete antithesis of Pyrrhus the doubter, Protagoras as the typical upholder of noble philosophic certainty; interpreting the dictum "Man is the measure of all things"

as an assertion of human infallibility (107). Closely related is the stressing of "Nosce teipsum," as the essential beginning of the ascent to religious knowledge and experience — a theme on which Dee was once to contemplate writing a philosophical work. The dissemination of such views is again partly related to an increasing knowledge of the Greek fathers, whose works, though some Cistercian translations had been made in the middle ages, do not seem to have been fully available or widely read until the age of the humanists. In them the doctrine and its consequences as regards pagan religion, philosophy and literature are clearly developed; it is they who first attempt the reconciliation of this "naturalism" with Christianity, though it had appeared to many of the Latins, since Christianity was adequately founded on a particular historical revelation, with an authorised scriptural expression, an unnecessary and sophisticated adjunct. Clement's high estimate of the powers of the naked mind, his confidence in what it could achieve, his relative lack of consciousness of "sin," his "Platonic intellectualism" with its consequent belittling of the importance of the practical moral virtues (108), which figure only as preliminary disciplines to the true activity of the soul ("let us strive to do good by union with the monadic essence") are still sometimes stigmatised as foreign to the genuine spirit of Christianity (109). The gospel he does not regard as a new departure but rather as representing a convergence of Hellenism and Judaism. In contrast with the denunciations of pagan learning as the invention of devils such as Tertullian and other Latin fathers sometimes indulged in, Clement asserts that all philosophies contain a part of truth, the sects having distributed it amongst themselves as the Bacchantes did the body of Pentheus; but all are illuminated by the same source of light, which is Christ, and their dogmas "though appearing unlike one another, correspond in their origin, and with the truth as a whole"; they differ but as various numbers which are nonetheless all needed in arithmetic, or as the separate notes of a harmony (110) for truth, moral, spiritual, intellectual, was in itself single and uniform, but there were many ways of approaching it, and it was only the imperfection of a temporary form of expression, or the limitation of the understanding that could make those things that might be known, and legitimately asserted, by different methods, appear mutually antagonistic. Similarly Justin Martyr defends the truth of pagan philosophy on the ground that its teachings are derived from internal revelation by the *logos* (and also as being part of a tradition with an authentic divine beginning) saying of the differing philosophic sects which nevertheless all possess some doctrine similar to those of Christianity "for each seeing through a part of the Seminal divine word, that which was kindred to those, discoursed rightly.... Whatever all men have uttered aright belongs to us Christians....For all writers through the engrafted seed, of the Word which was planted in them, were able to see the truth darkly."(111) Even in pagan religion and mythology there was no need, from such a position, to dismiss out of hand as illusory or diabolical, since the neo-Platonic and stoic custom could be followed of interpreting the gods as personifications of genuine powers and functions of deity, which had been observed in creatures and natural processes, and properly revered under the guise of allegorical fiction or symbolic concrete representations (112), while the inevitability of this natural reflection of God in man's best acts and thoughts could be adopted into Christianity almost in the form in which Plotinus expounded it (Augustine's thought is not dissimilar to this with certain reservations (113))__that God being internal to man, providing the very basis of his nature in all its positive aspects, and remaining the goal towards which his self-realisation tends, an attempt to escape Him involves man in the attempting of an impossible divorce from his own nature, resulting eventually, through such a consequent decline towards non-being, in his utter destruction, "while he who knows himself, will also know from whence he derives."(114)

The revival of such thought in the west, with its implication of the universality of religions, has been held to have begun with Cusa (115). But certain of its features had been embedded in the Augustinian tradition, which for instance, in contrast with the strict Thomist position that demanded proof of a specific revelation on matters of faith and formal dogma before any pagan thinker might be accounted saved through Christ, had been able by its refusal to draw a sharp boundary line between the provinces of philosophy and theology, reason and faith, and by asserting the derivation of all knowledge to depend on the mind's relation to God, to allow religious importance to pagan writers, justifying them further by the claim that they also had been "illuminated," as part of a general revelation to mankind. Such is the ground of many of Roger Bacon's remarks on classic writers, as for instance on Apuleius' *Apology*--a work Dee cites in his own defence against charges of conjuring (116)__that "it contains well_known articles belonging to the faith (and)...is consistent with the truth in a wonderful way."(117) However, it is only with the revival of classic learning and neo-Platonism in the Renaissance that the doctrines become fully recognised, explicit and developed. But it should perhaps be stated that the eclectic toleration, manifested, for instance, in Boccaccio's story of the "Three Rings," is far from indicating merely

religious indifference as Burckhardt claimed (118) while, to pursue his interpretation further, it is inadequate and misleading to describe its postulate as "Deism," so pronounced are the negative implications of that term as regards particular creeds — nor can the acceptance of three revelations be properly considered as merely the same as the libertine rejection of three impostures. More usually the spirit that accompanies such wide toleration evidences something of the ardour and ambition of Proclus who wished to be a priest of all the religions of the world at once (119). Even adoption of a metaphysic which ultimately implied adherence to the Platonic tradition of a "Negative Theology," in the Renaissance would seem to have produced a temper which less generally stresses the inadequacies of various religions (the most obvious consequence of such a completely transcendental position) than one that insisted on what was of positive value in each by assisting the mind to form conceptions of truth by diverse representations, and found even in their apparent contradictions, their supplementation of each other. Every religion, Agrippa observes, contains much that is good and which proceeds from God, who, although he has now declared His approval to be henceforth limited to one form, yet He does not disapprove of the honour and worship offered formerly in other manners and will not fail to reward these (120). It was perhaps only through a Platonic conception of mind as characterised by a natural tendency and native ability to ascend from the contemplation of things visible to a knowledge of things invisible, which last could only hope to be represented to the imagination in the form of myth and symbol — a conception intrinsic to many Renaissance encomia on the excellence and dignity of man, such as Pico's or Manetti's — His that such a position could be conciliated with orthodox Christianity (Trebizond, eschewing these premisses, could see in Pletho nothing but a second Mahomet, a dangerous viper attempting the destruction of true religion and the re_introduction of paganism (121)). For though in one sense the "origin" and establishment of Christian dogma was by a historical revelation, yet the grounds of its certainty, its verification, it was argued, were the facts that it had only to be interpreted properly to be recognised as that goal to which man's mind had, albeit unwittingly, always aspired (122), and its complete conformity with all the partial truths and discrete fragments of knowledge otherwise attained, which it now unified in a fully articulated system, whose coherency and adequacy was an immediate demonstration of its correctness. This view — that Christianity, though a revelation, was a goal already surely defined if not attained by human philosophy — underlies Petrarch's well-known affirmation — in which the position is of course somewhat rhetorically exaggerated — that Cicero would have embraced the faith had he but heard the name of Christ. Not philosophy merely, but ancient religions are thus frequently justified in the Renaissance; those who worshipped idols, wrote Salutati, nevertheless "semper tamen in eis aliquam essentiam divini numinis somniabant," (123) and argued that paganism was a necessary preparation to the reception of Christianity. Frequently, on similar grounds, the use of pagan deities, and invocations to them by the poets are defended; they are not passed off as mere pleasant fictions, literary ornaments of legitimate artificiality. Rather it is by employing these that "tu te montreras religieux et craignant Dieu...Car les Muses, Apollon, Mercure, Pallas, Venus, et autres telles deitez, ne nous representent autres chose que les puissances de Dieu, auquel les premiers hommes avoient donne plusieurs noms pour les divers effectz de son incomprehensible majeste."(124) Elyot, who judges Plato to be the thinker "whyche approached nexte unto the catholike writers," similarly allegorises, the Muses are born of Jupiter and Memory, and he declares, very seriously, "Musa is that part of the soule that induceth and moveth a man to serche for knowledge."(125) The underlying presupposition is always that religious truth is in some measure native to the mind, though its essential unity is concealed under a multiplicity of expressions. Herbert of Cherburg in the seventeenth century was thus able to produce a formidable list of authorities — including of course Clement — both ancient and modern, to support his contention that "Philosophy did heretofore justify the Greeks," accompanied by the assertion that "within the scriptures there are many things delivered to us, as the dictates of the spirit, which are indeed but articles founded upon reason."(126) Herbert himself sought the foundations of religion merely in this universal reason, and the "common notions," which are ineradicable instincts of all men, and his system offers an interesting transitional example of the separation of such views from the Renaissance Platonic metaphysic, employed within a Christian framework, and their restatement as independent premisses to a Deism of specifically "modern" cast (127).

Many points in Dee's though rely both on the belief that a single historical tradition may be traced back through the various philosophies and religions of the world, and also that a general illumination of the human spirit is also to be presupposed; these contribute to an attitude towards religion that combined devotional enthusiasm with a far reaching eclecticism as regards explicit dogma, and meet and fuse in the doctrine that foundations of necessarily transcendental origin must be ascribed to knowledge, if truth or certainty were to be held attainable by man at all. In addition

to these two beliefs, Dee would seem to have accepted the occurrence of a successive direct revelations, of a limited kind on either intellectual or spiritual matters to individuals. (On a theoretical level this belief is reflected in his cabalistic approach to the scriptures, and his scrutiny of them to discover new and important allegorical interpretations after the manner of Philo which implies the supposition that the revelation made through them has not yet been definitively exhausted but that there is still much more light and truth that will breakout of the Word. In this, he perhaps consciously, not only resembles, as in so many other respects Roger Bacon, who held that complete revelations of all Science had been made — to Adam and Noah, and later to Solomon, and partial ones to Aristotle and Avicenna — but also Joachim of Ficera, whose doctrines and prophecies Dee speaks of with respect (128) who supposed a continuous progressive revelation of God to be taking place through time, of which the Scriptures, and the Church built upon them, represented only one phase. Dee's own claims that some of his writings — such as the Monas — were produced not merely at divine directions but under divine guidance are made with a solemnity emphasized by the cryptic nature of his references to this process of inspiration, and his later investigations with Kelly seem undertaken in the belief that he himself was to become the channel of a new revelation to the world (129).

V. Although none of Dee's finished, full-scale theological or metaphysical works were printed and all are now lost, a number of his speculations on one subject survive, which while they perhaps represent only somewhat exploratory or tentative inquiries yet demand a fairly full treatment here in so far as they deal with a problem which suddenly, for a variety of reasons, assumed considerable importance in Renaissance philosophy, particularly as regards current interpretations of Aristotle's teachings, and also since they show Dee grappling with certain fundamental questions and along thoroughly scholastic lines, and reveal aspects of his thought not represented in his other known writings.

They are also of interest in the light of the number of statements that have been detected, as of novel occurrence in England, of about this time, such as Latimer's, in a sermon of 1549, "There is a saying that ther be greate maenye in Englande that saye there is no soule, that thynke it is not eternal, but lyke a dogges soul, that thynke there is neyther haven nor hell"; or the note Robinson inserted against a passage of the Utopia of 1551: "The immortalitie of the soule, whereof these dayes certeine Christianes be in doubtte." (130) Dee's contribution to this subject occurs in a section of a little memorandum book which he used for various purposes at intervals throughout his life; after some pages of miscellaneous extracts from Plato, Aristotle — chiefly from the de Anima—and others, with a summarised list of the opinions of ancient philosophers upon the composition of the stars, and after some preliminary reflections, there occurs, in the minute crabbed hand he employed when his purposes were purely private, and written with extensive use of abbreviation, a set of fourteen propositions that he claims in the heading as his own, upon the nature of the soul (131). Dee's conclusions are indecisive or wholly negative; but it is unlikely from their probable period of composition that their sceptical tenour represents Dee's own frame of mind at some particular time but rather, it would seem, Dee's object in them is to expose the inadequacy, and general unsatisfactoriness of the assumptions and method — which are those of Aristotle — he is here exploring. For they would seem to be written, or copied out, about 1566 — a horoscope cast in this year appears on the same page of the notebook as Dee's propositions, and in one or two cases letters of words in these impinging on this seem to be written over rather than under it. Other horoscopes of the same period occur on previous pages of the notebook, some of which seem to be later and partly superimposed on, other notes of Dee concerning topics related to the present speculations. But these can hardly be accepted, if written at such a date, as expressing Dee's positive opinions; their content might be accepted as just compatible with the general scheme of his naturalistic Aphorisms of 1558, which bears some resemblance to Averroist physical cosmologies of certain Renaissance philosophers — as that for instance presupposed as the basis of Pomponazzi's de Incantationibus—but are quite discordant with the mystical, Cabalistical and Paracelsian Monas of 1564, or the neo-Platonic epistemology of the Preface of 1570 or indeed with what would seem to be the nature of many of his writings now known only by the full titles Dee recorded. Thus in these propositions man is treated as a by no means exceptional phenomenon of sublunar nature, a mortal organism compounded like any other of matter (the body) and form (the soul), but Dee's usual view of man, traces of which are found in most of his writings is to accept him as the Microcosm, the exemplar and mirror of the universe, summing up in his constitution the mysteries of the Three Worlds, of infinite potentialities, innately possessed of the seeds or ideas of all things, a mingling of the eternal and temporal and occupying in consequence a privileged medial position in the scale of existence; thus in 1591 he wrote a work entitled De hominis Corpore, Spiritu et Anima: sive Microcosmicum totius Philosophiae Naturalis Compendium (132). The most probable explanation of these notes — and it is of some significance for Dee's general thought — would seem to be that they are an illustration of the reasons which led Dee to break with a conventional Aristotelianism and adopt a Platonic metaphysic and a Pythagorean mathematicism in preference, and turn increasingly to an investigation of cabalistic, magical, theurgic and spiritualistic subjects. The implications of the propositions in the context of Dee's opinions would seem to be that the concepts of "matter" and "form," interpreted in terms of Aristotle's philosophical system, would have to be abandoned, or their content and definitions radically altered if they were still to be employed as instruments in the analysis of Nature. Here it may be noted that while Dee's preoccupation with mathematics led him to stress continually quantitative considerations in observation and experiment and towards an atomism in chemical speculation, and is responsible for his emphasis on purely mechanical interpretations in physics with its accompanying approach towards such a division, into primary and secondary qualities as became commonplace in the succeeding century, yet the renunciation of those subtle, and useful, categories matter and form, or the substitution for them of the simple dualism that was regarded as increasingly possible with the growth and spread of such consideration as those just remarked on, of soul and matter, presented grave difficulties in the

sixteenth century. Mechanical interpretation for instance could be readily extended only to a restricted range of phenomena, nearly all in biology, many in chemistry or even physics — such as the powers of the magnet — seemed to require resort to the rather indefinite term, between soul and body: "spirit," which designated a force in body, but one perhaps not separable from it, of which the activity in any particular case might be taken as a function of the specific "form." While as regards the immediate subject of Dee's notes, as late as 1624 the Sorbonne condemned as "fort impertinentes" the theories of atomist chemists who denied "matter" and "form," denouncing these as opposed to the Catholic faith "cor s'il n'y a point de forme ny de matiere, l'homme n'a donc ny corps, ny ame," (133) while at the end of the century Malebranche, accepting — as did the Cambridge Platonists in the interests of establishing a similar simple dualism — a thoroughgoing Cartesianism restricting the essential properties of matter to two faculties ("La premiere faculte est celle de recevoir differentes figures, et la seconde est la capacite d'etre mu") and setting it over against soul, which was essentially a combination of will and understanding — was able to declare "On peut dire avec quelque assurance qu'on n'a point assez clairement connu la difference de l'esprit et du corps que depuis quelques annees."(134)

But before any detailed examination of the individual proportions, since these are so compressed, and take so much for granted in their terms of expression, which are themselves very rich in implication, a more general discussion of some of their presuppositions and terminology emphasizing the most prominent contrasts with what may be determined as more usual characteristics of Dee's thought would seem desirable. As to the substance of Dee's speculations here, though he touches on some of the main questions at issue between Avicenna and Averroes, Crescas and Maimonides, he is mainly drawing upon Aristotle's de Anima, and interpreting it strictly along the lines Pomponazzi adopted — many of the propositions indeed would seem, in part at least, to be verbal reminiscences of the de Immortalitate. One of the important achievements of the School of Padua in their concentration on and reestimate of Aristotle's work in the Renaissance had been to establish that a "naturalistic" interpretation was at least as legitimate, if not closer to the original intentions of Aristotle, as that of the Scholastics, which had attempted to view his thought as concordant with the "dualism" that Christian orthodoxy seemed to demand. Dee accepts this view of Aristotle as correct, and emphasizes the rift between Aristotelian and neo-Platonic teachings on the soul, which had often passed unnoticed in the Middle Ages, when the soul had frequently been defined with Aristotle as the form of the body, but nonetheless considered as a substance sui juris whose union with the body represented a degradation. Dee here rejects, or rather does not admit as consonant with Aristotle the attempt, as made for instance by Aquinas to defend both views at once, he understands by the Aristotelian "Form" something only existing in composition with matter, which is to be considered as something not "quod est" but "A quo aliud est," and thus excludes the rational soul, if so defined from being accepted as "essentiae per se stans." The acute awareness he shows of this incompatibility perhaps supplies one of the reasons for the almost complete absence of Aristotelian terminology of analysis in his later writings and his adoption of a purely Platonic view of the relations between body and soul; for Pomponazzi unequivocally suggests that this is the only philosophical position from which immortality could consistently be maintained; for when criticising the Thomist position as untenable and self-contradictory, he adds "Quare sapienter mihi visus est Plato dicere ponens animam immortalem, quod verius homo est ut anima utens corpore, quam compositum ex anima et corpore et verius eius motor scilicet corporis quam eius forma; cum anima sit illud quod vere est, et vere existit, et potest induere corpore et eo spoliari. Non video enim quin D. Thomas non habeat hoc dicere."(135)

The view of the soul and the manner in which it is assumed knowledge of its functions must be gained, from which, as consequences, Dee develops his propositions, is a noticeably different one from that which emerges usually from his writings and of which he would seem profoundly convinced. Thus the description of the soul as a harmony, which the de Anima refutes at length, or as a "self moving number," there stigmatised as "the most irrational of all theories ever suggested,"(136) are both spoken of by Dee with respect as valuable aspects of the truth (137), or again, the particular view of "generation" assumed in the present case, differs widely from that of Avicenna, which involved separable forms, which Dee, in notes to a work of Bacon's discussing "speculative alchemy" as the universal science, declares to be the only true account (138). Normally Dee's position accords with that, which, Agrippa says, "Plotinus and all Platonists have followed Trismegistus in adopting," that the Soul has three parts, inseparable in the sense that the lower develop from and are included in the higher: "idolum" governed by "ratio," which functions in the light of the illuminated "mens," which in turn is dependent either directly upon God or some mediate separated intelligence (139). Moreover when Dee describes, as in the Preface, the proper objects corresponding to each of these three levels of cognition; the schema, though outwardly the

same as Aristotle's tripartite division of the sciences, exactly reverses the relations of mutual dependency holding between these. Dee's descriptions, indeed, as so often, have their precise prototypes in Roger Bacon: "Unde mobile corruptibile, ut sic est, apprehenditur ab intellectu depresso circa sensum, de quo est physicum naturale negotium, mobile autem incorruptibile ab intellectu elevato supra sensum apprehenditur, circum ymaginem tantum vel fantasiam depresso; de quo est mathematica doctrina, immobile autem et incorruptibile ab intellectu maxime elevato puro et separato speculatur de quo est metaphysica."(140) Again Dee normally assumes that the soul can exercise control over natural processes, apart from those of the particular body it occupies; for though in early neo-Platonic doctrines the thesis is maintained, as by Plotinus for example, that human souls effect what they perform as servants do by direct contact, mingled with their work, and the World soul alone, rules, like a master, by mere command from a distance, yet that even human souls might act in this manner had become an important tenet of the magical theories to which Dee inclined. Thus Roger Bacon, explaining these, calls Avicenna as witness that "Nature obeys the cogitations of the soul," and since it is evident by experience that even the sensitive souls of brutes produce strange changes in things "how much more will it obey those of the intellectual souls of those who are only one degree below the angels."(141) Moreover Dee's usual line of thought is to stress that the realm of intelligibles, represented primarily for him by the objects of mathematics, is the natural level of the mind, where it operates free from direct dependence on either higher or lower externals, and is to follow the customary Platonic argument from the premiss that "like knows like" in deducing the qualities of the soul from the nature of these, i.e., that it must be incorporeal (a term somewhat ambiguous of course as many found the assertion of this Platonic position quite compatible with Ibn Gebirol's theories that stated that all substances, in a rather special sense, were compounds of matter and form, and allowed soul itself to act as a sustaining corporeality for higher principles) — not subject to magnitude, imparticle and so on (142), leading to the conclusion, which is very different from that of the present propositions, thus expressed by Chapman after developing a similar argument, "And that our souls in reason are immortal Their natural and proper objects prove."(143) Indeed Dee finds such significance in the mind's grasp on abstractions, and so values the conceptions native to the intellect, that he claims that it is only by the contemplation of such entities as those of the mathematics that man can attain to knowledge and certitude upon matters as to which he must otherwise wholly rely on revelation. He writes in the Preface: "And for us Christen men, a thousand thousand mo occasions are, to have nede of the helpe of Megethologicall contemplations: wherby, to trayne our Imaginations and Myndes, by litle and litle, to forsake and abandon the grosse and corruptible obiectes of our vtward senses: and to apprehend, by sure doctrine demonstrative, Things Mathematicall. And by them, readily to be holpen and conducted to conceive, discourse, and conclude of things Intellectuall, Spirituall, Aeternal, and such as concerne cure Blisse everlasting: which, otherwise (without speciall privilege of Illumination or Revelation from heaven) No morall mans wyt (naturally) is hable to reach unto, or to Compasse."(144) Such arguments it should be noted are not available to Dee, in resolving the dilemmas he sets out in his propositions; since the status of the intellect which permits the apprehension of such objects, whether it be a part of the soul at all or be not itself common and separate is one of the fundamental questions here admitted as in dispute, and Aquinas' assertion for instance in the face of this difficulty that Intellect was a part of soul, and the whole cannot be considered as of less value than one of its parts (145) is, on the premisses from which Dee is approaching this subject here, a palpable *petitio principii*.

Here too is the only instance of Dee's use of "matter" and "form" in a strictly Aristotelian sense, as the two fundamental concepts in an analysis of reality. Usually the primary distinction he establishes is between "reason," or "life"; and the sensible world which can be exhaustively described in terms of number, measure and weight (admitting of course spirit as an intermediary category which might be thought of as forces employed by the soul — *vis Imaginativa*; perhaps, as forces dwelling inseparably in organic bodies or as a particular type of refined but possibly corporeal fluid — as the vital spirits; or emissions, such as species given off by all entities, or certain type of stellar radiation of astrological importance). This setting of body, possessed of some natural or separable properties over against soul which, substantially existing, acts as its organizing principle is, however, a view compatible with Platonic, as it is not with Aristotelian, teachings, as compared with which also it had more obviously satisfactory theological implications. It is very much the situation in the Timaeus after the creation of the geometrical atoms, Avicenna employs it in describing the relations between the human soul and the particular body with which it is associated (146). For Crescas, while "matter" is a general indeterminate substrate, it is not in pure unconditioned state that it enters into combination with forms, but as body which has already the inherent characterisation of quantity (including weight), figure and

position; the Aristotelian thesis that all that is in an object either exists through it as an accident or is the form through which this exists as an entity, though a form itself incapable of independent existence, is rebutted with the suggestion that there is a "corporeal form" indissociable from the first matter; and since it sustains other forms these can no longer be thought of as that through which "bodies" exist, but have rather the status of accidents in regard to them (147). Such doctrines, which closely resemble the theories to which Dee's mathematically based scientific practice led him are in sharp distinction to those he assumes for his propositions. They are presented with attractive clarity and very explicitly, and their importance in relation to the subject of these speculations of Dee's made very clear by Cudworth: in the subsequent century, when the apparent triumph of a methodology in science, which Dee advocated at a rudimentary stage of its development when all its fundamental implications were by no means obvious, had made it possible to state the problem more directly or in simpler terms — Cudworth openly advocates "the atomical or mechanical physiology" not merely because it is the only "physiology capable of rendering sensible things in any degree intelligible," the only one not "altogether incomprehensible and inconceivable to our human understandings, "but because once accepted as true, since it cannot give a full account of all that is known of the world, since perception of qualities involves "fancy" which "is not mode of body," it necessitates the existence of a second principle to which the name "soul" is given. The disadvantages of describing everything in terms of "matter" and "form" being that "in this way of philosophising the notions of body and spirit, corporeal and incorporeal, are so confounded that it is impossible to prove anything at all concerning them....life and understanding may be supposed to be certain forms or qualities of body and then the souls of men may be nothing else but blood or brains, endued with the qualities of sense and understanding." But the advantage of atomism is "that it prepares an easy and clear way for the demonstration of incorporeal substances, by settling a distinct notion of body." It asserts that "there is nothing in body or matter but magnitude, figure, site and motion or rest: now it is mathematically certain, that these however combined together, can never possibly compound, or make up life or cogitation, which therefore cannot be an accident of matter, but must of necessity be a substantial thing." He recurs frequently to this point, insisting that "Life, cogitation and understanding are entities really distinct from local motion and mechanism, and that therefore they cannot be generated out of dead and stupid matter, but must needs be somewhere in the world, originally, essentially and fundamentally."(148)

One of the reasons why Dee does not describe "body" in this way, and why he attains only negative conclusions upon immortality, in these "Propositions," is that he here, as he does not elsewhere, restricts the concept "matter" to conform with Aristotle's usage, taking it as the purely potential, and uniform, substrate of all sublunar entities, but which is a necessary generic principle of forms — since they cannot exist in separation from it, and to which, or rather to the composite substance it composes with these, Aristotle allows qualities and capacities which Plato strictly confines to soul. The doctrines which most readily allowed the retention of the concepts "matter" and "form," while avoiding all the difficulties Dee develops in the Propositions, have their source for mediaeval thought in Ibn Gebirol's Fons Vitae (a return to them, or revival of them is noticeable among protestant theologians of Dee's age — perhaps largely suggested by considerations of the Christian dogma of the resurrection of the body — which contributed perhaps to Cudworth's confident later adoption of them as the solution of various metaphysical dilemmas). Though Dee may have had no acquaintance with this work, he was familiar with its teaching as presented by other writers who influenced his thought, particularly Duns Scotus (Dee notes in his "Spiritual Diary" that Scotus was guided by the same angel as himself (149)) and Roger Bacon. Bacon, holding that all things apart from God himself are composed of matter and form insists in consequence that matter must differ from matter as form from form. He distinguishes three main species: Spiritual, which is not subject to quantity, movement or contrariety; Sensible, which is subject to all three; and Celestial, subject only to the first two, but not to contrariety. But none of its varieties are mere unconditioned potentiality, all have a certain positive nature which governs their respective receptions, and limits the realisation in them, of the forms to which they may be subject (150). Bacon foresees disastrous consequences from the admission of only one type of matter — he attributes to it a unity "secundum essentiam" and multiplicity "secundum esse": "Et cum omnes ponant quod materia sit una numero in omnibus rebus...et cum hic sit error pessimus qui unquam fuit in philosopho positus, ideo aggredior hanc positionem, et huius modi positionis destructio est valde necessaria....Non solum igitur est error, sed haeresis quia blasphemai inducit."(151) The relevance here of the doctrines of the Fons Vitae as found in such analyses as this of Bacon's is that they offer an escape from the dilemmas propounded by Dee as resulting from a strictly Aristotelian analysis, and suggest a solution along lines fairly close to Dee's usual attitude, and do this by a reinterpretation and not an out of hand rejection of the fundamental

terminology employed. "Materiality" which enters into all existence is carefully distinguished from "corporeality" or extension, composed of the lowest matter and subject only to quantity, magnitude, figure and colour. Matter varies in its potentialities for receiving form, it is not purely passive, but has positive appetencies towards these, and the individual entelechies of Aristotle, are submerged in one universal tendency of progress toward God. Thus, "Hyle particularis desiderat formam particularem" and "materia movetur ad recipiendum formam propter suam inquisitionem consequendi bonitatem, quae est unitas," and when it has formed a substance, by sustaining the lowest, primary, qualities, it is impelled "postea ad recipiendum formam metallinam, deinde formam vegetabilem deinde sensibilem, deinde rationalem, deinde intelligibilem, donec coniungatur formae intelligentiae universalis." A continuous hierarchy of substances is thus constructed, each of which can serve as "matter" to the higher and as "form" to the lower; for the answer is given to an objection (that, from a previous statement it would appear that "intelligentia et anima et omnino omnes substantiae simpliciter debent esse sicut hyle. Sed tu iam praedixeras eas esse formas"). "Oportet ut inferius sit hyle superiori, quia superius est agens in inferiori." (152) In this way therefore that sharp discontinuity could be avoided which Pomponazzi's Aristotelianism established between Sublunar Nature — including man — where all things were generable and corruptible, and cognition was never totally independent of sense experience, and the separated Intelligences — a discontinuity entirely foreign to Dee's thought, but towards which his present discussion of the soul seems to point. The importance of one feature of Gebirol's metaphysic as a solution to some of the problems Dee raises is evidenced by Cudworth, who devotes a large portion of his work to attempting to prove a variation of this doctrine (he does not distinguish very obviously between "corporeality" and "materiality," and as his chief authorities uses Philoponus and Origen). Cudworth's version, which he calls "this ancient Pythagorick cabala," maintains "that God should be the only incorporeal being in this sense, such whose essence is compleat, and life intire within itself, without the conjunction or appendage of any body, but that all other incorporeal substances created should be compleated and made up by a vital union with matter, so that the whole of them is neither corporeal nor incorporeal but a complication of both," so that, "it being natural to souls, as such, to actuate or enliven some body," then according to various stages of their perpetual existence, "the souls not only of men but also of other animals have sometimes a thicker and sometimes a thinner indument or clothing." (153) This according to Cudworth represents the only way of overcoming otherwise inseparable difficulties in conceding the soul a continued existence after death, and of conceiving at all the future states, or its transition to them. As to the relation of such doctrines to more usual and self-acknowledged neo-Platonic theory, it is noticeable that Ibn Gebirol's hierarchy in terms of matter and form, might be viewed as a transformation of Proclus' closely linked scale of existence in different relations, being the effect of the immediately superior one, and functioning as the cause of that below, so that each as it were impressed, as though it were a form, its character on its adjacent inferior, while at the same time in one sense being "sustained" by it insofar as its own existence could not be described as complete until it had realised itself, by activity in the effect (162). Again, as to the necessity of the soul surviving in some other type of body after the death of the mortal organism, as will be shown — the only apparent solution it would seem to some of Dee's queries — because all substances apart from God are combinations of matter and form, fairly explicit statements of this position occur in the Hermetic texts (163); while Augustine had invoked Plato's authority against those philosophers who "think they give us a witty scoff for saying that the soul's separation from the body is to be held as part of the punishment [of Adam]....Plato affirming plainly that the Gods that the Creator made have incorruptible bodies, and bringing in their Maker as Himself promising them (as a great benefit) to remain therein eternally, and never be separated from them," and had argued "the eternity of the body" to be a necessary assumption if full survival and resurrection were to be accepted (164) or again citing Plato to the same effect "Therefore it must not be the lack of a body, but the possession of one utterly incorruptible that the soul shall be blessed in," adding "Plato and Porphyry held diverse opinions, which if they could have come to reconcile, they might perhaps have proved Christians. Plato said that the soul could not be always without a body, but that the souls of the wisest at length should return into bodies again" and "Porphyry says `the holy souls shall not return to the evils of this world.'" The injunction follows "Wherefore let Plato and Porphyry, or such rather as do follow them and are now living," combine their views, when "there shall be a sweet harmony" conforming to Christian doctrine (165). This bears on Dee's propositions insofar as it would represent perhaps the only means of preserving the doctrine of the soul's immortality, without rejecting the terms of the argument outright, for apart from this solution it would seem only possible by restricting participation in eternity to those faculties in man that could be conceived of as parts of the separated but universal active intellect which survived,

impersonally, after death enjoying a felicity in the contemplation of Intelligibles — a theory, however, which one cannot definitely affirm not to have been that actually accepted by Dee.

A further fundamental difference between the position Dee now explores and his usual opinions concerns the question of the dependency of knowledge upon the sense and the source of conceptual thought in man. Normally his position approaches Pico's — whose "Theses" he strongly recommends in the Preface (166) — that the soul can grasp truly and directly only itself; a "thesis" — it was one of the thirteen officially condemned — explained in Pico's Apology, as meaning in fact its apparent converse, since such is the nature of the soul that in its understanding of itself it comes to know all things in the universe (167). Dee's usual stress on the a priori, on the innateness of mathematics in the mind, is perhaps in part a consequence of the unsatisfactory conclusions he reaches here, where such considerations are left out of account; for such assumptions would be necessary, Pomponazzi had observed, if immortality were to be reasonably (and not merely as an act of faith) ascribed to the soul; for if all the objects of knowledge are known only through or by the assistance of the operations of the mortal body, that which knows these, must, in nature, be perishable, but Pomponazzi himself adopts the view that no other forms of cognition are revealed by our experience, "quare concluditur, quod hic modus intelligendi est essentialis homini" and inseparable from him (168). But the consequence of holding the mind when considered wholly apart from any operations of externals affecting it, a tablet, in Aristotle's senses waiting to be inscribed, ("a meer blank, or whole sheet of paper, that hath nothing at all in it, but what was scribbled upon it by the objects of sense") was, the Platonists invariably contended, to "make knowledge and understanding to be in its own nature, junior to sense, and the very creature of sensibles....(and) imply the rational soul, and mind itself, to be as well generated as the sensitive, wherein it is virtually contained." (169) Nor was the position altered as regards personal immortality by Aristotle's supplementation of this account of cognition by allowing the mind also to be affected by the separated active intellect which is eternal and divine, which knows without the interposition of sense, in which there is no distinction between knower and known; for this is an impersonal agency which supervenes from outside, is quite apart from the individualised human soul which is the form of the body, and which in its intellectual part remains wholly passive, receptive, and perishable (170). Hence Dee would elsewhere seem to have adopted the metaphysically more fruitful neo-Platonic interpretation of the "tablet" theory — suggested by his use of particular "symbols" as avenues to truth in the Monas, or his stress on the mind's ascent from sensibles to levels where it functions independently of these, dealing directly with abstract realities — in which the mind though possibly needing initially the illumination of externals nevertheless possesses forms and positive qualities of itself; they are possessed, Pico argued, as an object retains its colours in darkness, which require the presence of light not to create these but that they may be perceived (171). Thus Plato had endeavoured in a number of profound psychological analyses to show that it followed from the contents of thought that a demonstrable separation could be made between the particular attributes of soul and those of the body it utilised. Assuming a complete qualitative difference in the data of the various senses, it followed that what could be known as applying to these generally was known independently of them: thus such knowledge as that a sound and colour both are, and are different, that each is one, and together they are two, must hence be an apprehension of the soul having a non_sensible source; and this he had held to be further apparent from the reflection that concepts apprehended by the soul such as equality, are never fully or exactly manifest in sensibles, and are therefore prior elements of knowledge to their approximate sensible imitations (172). Aristotle on the other hand ascribes merely to the operation of sense as a whole ("sensus communis") the origin of many of these notions which can be subsumed under the presentations of no single sense organ: "Nor can there be any special organs for the common sensibles, which we perceive incidentally by every sense, for example, motion, rest magnitude, number, unity. For all of these we perceive by motion" (173) (and "motion" here radically differs from the Platonic account of it). Moreover he insists that knowledge of abstract concepts, and "forms" in man, whatever part be allowed to the active intellect informing thought, must remain dependent upon a perception of the sensible exemplifications of these. Dee's contribution to this controversy, as ancient as it is perennial (174) seems designed to make clear that the adoption of this last position as a ground for speculation involves, as a necessary consequence, the impossibility of obtaining any assistance from philosophy in the comprehension or investigation of large areas of truth which in outline were already certified by religion. But this is a conclusion not at all consonant with Dee's philosophic temper, which is rather akin to that of Augustine, who at the beginning of a similar enquiry exclaims "Sed ego quid sciam quaero, non quid credam," that is, he demands to grasp with rational certitude matters of faith (175) — and who on another occasion, once more discussing the subject of Dee's propositions, praises in

Euvodius "cupiditatem istam....qua tibi persuasisti ratione pervenire ad veritatem" (176) as a legitimate aim distinct from the meritorious but over easy acquiescence in authority which suffices for the multitude and those of low intelligence.

VI. Preceding the propositions Dee places a number of reflections bearing on his theme. They occur on a page (177) largely occupied with a summary of the conflicting views of Greek philosophers on the nature of the world and Soul's function in it, ending with Plato's opinion, that it is composed of intelligible incorporeal elements moved and controlled by harmony, or proportion. They open with the statement that no man, unless he is divinely excited and instructed, can by any method of investigation attain an absolute belief in the immortality of the soul. Interpreted in the general context of Dee's thought, this is to be distinguished from Pomponazzi's conclusion, which it superficially resembles, but which is content to leave belief and reason in apparent opposition: "*Mihi namque videtur quod nullae rationes naturales adduci possunt cogentes animam esse immortalem....Cum itaque tam illi viros inter se ambigant, nisi per Deum hoc certificare non posse existimo*"; the question has been settled by revelation testified to by the authority of the church, "*Quare, si quae rationes probare videntur mortalitatem animae, sunt falsae et apparentes, cum prima lux et prima veritas ostendant oppositum,*" and this will serve as a lesson to the heathen on the vanity of trusting in the powers of the intellect (178). Such a separation is foreign to Dee's thought which usually makes faith and reason freely supplement each other, discounting any possibility of a genuine conflict between them. The assertion he makes here is a familiar tenet of neo-Platonism, where it appears neither to denigrate the capacities of the human mind, nor to invalidate at all doctrines of the universality of religions or the real unity of the various philosophic systems. Thus Clement combines with his extreme "intellectualism," the assertion that "faith" must be the foundation, criterion, and justification of knowledge, on the grounds that all can be shown ultimately to rest on principles incapable of demonstration, and discovered neither by art nor sagacity (179). Similarly Crescas' professed object, in criticising Maimonides' proofs of the twenty-five metaphysical propositions drawn from Aristotle, was to demonstrate that a full understanding of such principles is necessarily based on revelation — through prophecy recorded in scriptures or by tradition — which nevertheless accords with reason and can be explored by its means (180). Cusa also develops the thesis of this reciprocal relationship — faith supplies the intellect with the material for its consideration, and includes implicitly all that is intelligible, but at the same time the specific quality of the operations of the intellect is that they themselves imply and point towards this same faith (181).

Dee continues by stating what is in effect the principal reason for the justification of his subsequent analysis of the soul; observing that the substance of the soul can never be conceived by the imagination, the consequent lack of immediate certainty being evidenced by the way in which questions relating to it are subjects of such emotions as hope and desire. It is only possible therefore (apart one should add as apparently implied by his previous remark, from methods resting upon principles having an extra human, divine warrant) to attain to a knowledge of the soul by a posteriori reasoning, from examination of its apparent operations and effects. Dee follows this statement by a tabulation of the faculties of the soul, discoverable in this way, under the headings vegetative (three divisions), sensitive (eleven divisions) and conative (three divisions). The purely intellectual powers on whose importance Dee elsewhere invariably lays so much stress are significantly not included, and the whole induction, which closely resembles Aristotle's procedure in *de Anima*, largely begs the chief question at issue in Dee's propositions which arise out of it: it makes implicit appeal to the conventional axiom that "*operari sequitur esse*" but restricts its survey of the functions of the soul to those which invariably involve in their effects an apparent bodily concomitant. Dee's most usual procedure would seem, by its results, to have been that which Aristotle criticises as one followed by nearly all his predecessors — they commenced by propounding theories explaining the nature of the soul, and not by examining the particular body which was to receive this, from which it might be concluded that it was possible for a soul to animate various bodies, as in the Pythagorean fables, a view Aristotle finds as ridiculous as "*talking of a transmigration of carpentry into flutes.*"(182) He himself lays it down that the attributes of the soul are to be defined in terms of motions in the body, and hence the whole investigation falls within the province of natural philosophy (183). Hence it follows almost automatically that "*there is no need to enquire whether soul and body are one any more than whether the wax and imprint are one*"; soul is therefore "*the first entelechy of a natural body having in it the capacity of life*"; its relation to the body is that of the cutting power to the axe which manifests it, of the power of seeing to the eye (184). The inevitability of Dee's conclusions here as to immortality from such a starting point, and also of the very different ones reached from another, is apparent from the consideration that they both alike follow from the position — as expressed by Augustine — "*Monstruosum enim et a veritate alienissimum est ut id quod non esset nisi in ipso (i.e., in subjecto) esset, etiam cum ipsum non fuerit possit esse*" (185); for if the soul be regarded as the form of the body and only existent through it, then since that in which it is realised is

demonstrably perishable, it must be similarly mortal; yet Augustine himself applies this principle to different data (that the soul is necessary substance for the expression of truth which is therefore inseparable from it, while truth in itself is demonstrably eternal); and a contrary conclusion is deduced: *Omnis in subjecto est anima disciplina. Necessesse est igitur semper ut animus maneat si semper manet disciplina. Est autem disciplina veritas, et semper....veritas manet.*"(186)

This argument reappears in Augustine's work in forms closely paralleling many of Dee's characteristic statements apropos of mathematics, as for instance "*Si enim manet aliquid immutabile in animo, quod sine vita esse non possit; animo etiam vita sempiterna maneat necesse est....Quis enim, ut alia omnium, aut rationem numerorum mutabilem esse audeat dicere, aut artem quam libet non ista ratione constare — aut artem non esse in artifice etiam cum eam non exercet; aut ejus esse, nisi in animo....aut quod immutabile est, esse aliquando non posse....?*"(187) But this type of reasoning is of necessity excluded from Dee's present enquiry. Parts of the soul, Aristotle allowed, might be adjudged capable of existing in separation from body, if they could be shown as not being the actuality of any body whatsoever. Intellect he conceded was something of this kind; for although love and memory will perish with man, the intellect "would seem to be developed in us as a self-existing substance, and to be imperishable," for though it appears to be enfeebled by age, this is caused "through the loss of something else within"; it is not in itself affected; man as a composite whole dies "while the intellect is doubtless a thing more divine and impassive."(188) But these concessions are of no assistance to Dee in resolving the dilemmas in his propositions since they do not of themselves allow the determination of how far this intellect may be considered as individualised, as a true part of the particular soul, whether in fact it descends at all into man otherwise than in power, producing effects upon him, whether the material passive intellect men may be said to possess of themselves, is not a mere aptitude for thinking under such a stimulus, an aptitude which thus seems to comprehend intelligibles but is nonetheless corruptible and mortal. Indeed Aristotle has now established such radical distinctions between the operations of the Intellect and all other human faculties that conclusions about the attributes of this intellect could not be automatically extended to that soul which may be properly said to inform the body and is active through it and is the foundation of the individual personality.

Dee's usual philosophical method would seem to be to proceed from the firm ground of the understanding downwards to sensibles and the external world (189), he does not believe any preliminary consideration of these last to be necessary for dealing with subjects peculiar to the superior levels of intellectual or spiritual existence and he only resorts to them in such investigations of non_evident reality in so far as they offer some convenient illustration that may intuitively assist comprehension, and persuasively fortify conviction ("*Respuis igitur in hoc causa omne testimonium sensuum?*" is the first demand of "Ratio" to Augustine when he would embark on an enquiry into the nature of God and the soul (190)). "*Things Supernaturall are of the mind onely, comprehended*" writes Dee, "*...in things Naturall, probabilitie and conjecture hath place: But in things Supernaturall, chief demonstration, and most sure Science is to be had....nor yet (in mathematical reasoning) the testimony of sense, any whit credited.*"(191) One may remark that on the one hand Plotinus' description of the soul as a light derived from and subsisting about intellect, that it acts as the principle of the phenomenal world (192) and on the other the view that it is "the form of the body" — in the sense employed in the present "propositions" — are typical contrasting results of two different approaches. Now that which elsewhere characterises Dee's thought is what has been termed by Urban — quoting the statement of Pierce that "the one intelligible theory of the universe is that of objective idealism, that matter is effete mind, inveterate habits become physical laws," — "speculative deduction," which takes the principle that it is only possible to derive the less from the more, never the more from the less, as "the condition of all philosophical intelligibility."(193) From this same principle Cudworth develops his arguments on the relations between soul and body, expressing it in a neo-Platonic hierarchical scheme which is here not unconnected with the ancient and persistent conception of the Great Chain of Being. It is impossible, he writes for "a substance as hath a lower degrees of entitie and perfection in it, to create that which hath a higher. There is a scale, or ladder or entities and perfections in the universe, one above another, and the production of things cannot possibly be in way of ascent from lower to higher, but must of necessity be in way of descent from higher to lower. Now to produce any one higher rank of being from the lower, as cogitation from magnitude and body, is plainly to invert this order in the scale of the universe...."(194) Innumerable invocations from all periods can be found of this principle made by neo-Platonic thinkers who employ it to produce a framework for some thoroughly objectified cosmology (195), and the resulting schemes in which lower entities are defluxions from, and limitations of those immediately above, invariably emphasize the hierarchic transcendence of the soul over the body. For this last is the basis of

Plotinus' criticism of materialism, that the soul can only be described in phrases nonsensical if applied in toto to body and its qualities, as would be necessary if this produces soul, but once a conception of the soul has been fixed, body then admits of explanation in terms of soul only one of whose many properties and functions is then to endow body with form (196). It is true that the Aristotelian doctrines explored by Dee in his propositions have some appearance of evading this criticism; for they make no pretence of explaining soul in terms of matter possessed of intrinsic qualities — all positive characteristics of any object derive from its non-material form. But although the term "substance" is applied indiscriminately in de Anima to matter, form, and the composite whole they make, only the last is allowed a genuine existence, and the presence of a certain type of organic body is made the sine qua non not merely of the sensible manifestation, but of the existence of soul which is its form, and this view of soul as no more than the organisation which maintains for a time in a specific, sensible, body does imply in effect a violation of the neo-Platonic "scale of perfections." This emerges clearly, to take a minor example, from Aristotle's treatment of the theory that the soul is able to move itself and is the cause of the motions of the body; this Plato defended in the Laws by a classification of kinds of motion, in which all physical change is subsumed under the one real activity, the motion of "thought." (197) Aristotle's "refutation" has for its starting point the limitation of motion to four species, locomotion, qualitative alteration, diminution and augmentation. From which classification, if it is accepted as exhaustive, it follows therefore that if the soul is to be attributed motion it must occupy a place; further, if it can move naturally, it will move under constraint, and therefore under the action of sensible things; and further, if the soul moves the body, it must impart to it the same kind of motions as it possesses itself, and these, since the nature of the body's motion are known to be so by observation, must be motions in space (198).

VII. Dee raises one other question before setting out the propositions, and as he recurs to it in them it will serve for a convenient starting point for a detailed examination of these for their order seeming largely casual, some regrouping of them is desirable in any case. If, Dee observes, "sol et homo generent hominem" and together produce all that is in man, the sun supplying some vital power to the seed, then it follows that the soul must be mortal. This cryptic phrase of Aristotle's (199) Dee repeats in later writings, but only with the limited purpose of engaging Aristotle's authority on the side of astrology (200) — the passage thus employed is almost a locus classicus in the Renaissance. But Dee, as is evident from the consequence he draws, is here thinking of it chiefly with respect to the strictly correct Aristotelian view of "generation," and of "man" as a unified, and so far as body and spirit are concerned, impartible, organism. Pomponazzi makes the same quotation "dicimus, quod anima humana est facta, sed non per creationem, verum per generationem, cum sol et homo generent hominem, secundum Physicorum, et ipso ultima in consideratione naturale"; subsequently arguing from this that if the soul were immortal despite being part of the result of such a process then there would have to occur at death a transmutation of human nature into divine, after the fashion of a fable in Ovid (201). Dee appends the quotation "man is begotten by man, each by a single father. Met. 12 ch. 3," but the relevance of this reference is perhaps only clear from its context in Aristotle's argument in that place, where it is produced as an example of the way in which things come to be whose individual characteristics cannot exist apart from the composite substance that embodies these, and which shows why it is impossible for all "souls" — whatever may be adjudged to be the case of the reason which is in man, if this should be considered a type of soul — to survive the dissolution of the body. The definition of "man" implied by making "man" as such subject to natural generation is inevitably at odds with such definitions as "Homo igitur, ut homini apparet, anima rationalis est mortali atque terreno utens corpore" of Augustine (202). Such a view Pomponazzi declares to be typical of Platonists, and totally ruinous to the unity of human nature, since it makes the union of soul and body no more intimate "quam boves et plaustrum," whereas it is truer to say "homines esse compositum ex anima et corpore," (203) which is the position of Aristotle, who insists always on taking "man" as the real entity, and soul and body as separate aspects of faculties of "man." ("Doubtless it would be better not to say that the soul pities or learns or thinks, but that the man does so with the soul."(204) The dilemma then arises that, as in Aristotle's hypothetical argument about the whole world, "to assert that it was generated and yet is eternal is to assert the impossible...generated things are always seen to be destroyed."(205) From such a point, and it is a rephrasing of the question Dee commences with, Plotinus began his discussion on immortality; "Hence if body is a part of us we are not wholly immortal," but if it is only an instrument of the soul, or the soul be its "form," in a Platonic sense — a redefinition of man is required for "in each way the soul is the man himself."(206) Dee's comment forms his sixth proposition; those who assert the immortality of the soul must deny that man is either generated or perishes; since his superior part endures, or must even have existed before the (natural) man. This parallels Pompanazzi's remark "Stat et altera dubitatio: (his earlier doubts appear in Dee's propositions immediately preceding the present one) ai anima esset vere generabilis et corruptibilis."(207) The gravity and long persistence of this problem of the implications of generation and in what sense man could be said to be subject to it, is apparent from Cudworth's later lengthy discussion of it, who takes up the subject in order to condemn "that doctrine of some professed theists, and Christians of latter times, who generate all souls, not only the sensitive in brutes but also the rational in men....because of life and understanding, in their own nature be factitious and generable out of matter, then they are no substantial things, but accidental only"; elsewhere calling this "the grand mystery of atheism, that everything besides the substance of matter is made or generated, and may be again unmade or corrupted"; so that Cudworth himself is driven to maintain that it is better, if it be necessary to save immortality, to hold "the ancient Pythagorick and Empedoclean hypothesis that all lives and souls whatsoever are as old as the first creation" — as Dee seems to suggest, is the consequence, than to admit an entire generation of Manor animals, which "leaves us also in an absolute impossibility of proving the immortality of the rational soul, the incorporeity of any substance, and by consequence, the existence of any Deity distinct from the corporeal world."(208) Dee's 9th proposition, which is brief and cryptic, seems to relate to the same theme: Aristotle affirms de gen. anim. 11. chap. 5 that all the soul is entirely present potentially in the seed (in fact only the sentient soul is directly mentioned there). Dee comments that the actualisation (the operations, end and purpose must lie where the potentiality is. This is an opinion which Pico, who declares "Anima est fones motus et gubernatrix materiae," finds important enough to contravert in several theses; order, fate, purposefulness must not be sought merely in seminal principles, but in the higher existences such as intellect which are the real powers controlling and guiding material

change (200). Dee's proposition in effect amounts to an assertion of the invalidity of that reflexive teleological reasoning which seeks information about the nature of man and the soul by an examination of the adequate and to which his fully developed spiritual capacities seem to point; for as Pompanazzi argues, rejecting in this manner all such considerations, because the soul is generated, and therefore mortal, "tunc non dabitur ultimus finis hominis, qua homo est" etc.(210)

Another group of propositions discuss the relations between soul and body in the mature whole. The fourth states that the soul cannot be incorporeal (and a substance), for there is no manner in which the incorporeal can be considered to exist in conjunction with a body for this would be contrary to its nature, unless it be only a quality, form, affection or power of the body. The necessary similarity that must exist in some measure between soul and body has always presented a problem to those who held the soul capable of a separate existence. A typical neo-Platonic solution is Olympiodorus, who can only thus account for the soul's descent: "it is necessary that she should first establish an image of herself in the body, and in the second place that she should sympathise with the image according to a similitude of form. For every form hastens into a sameness with itself through an innate convergency to itself..."(211) Dee insisting here on the unity of nature in the composite of soul and body is stating the grounds for the Aristotelian induction, previously mentioned, that concluded, to select one instance, that if the soul communicated motion to the body, then the type of motion it had of its own nature must be identical with the body's locomotion. Dee's limitation of the types of the incorporeal which might be conjoined to the body is a consequence of the axiom that forms the basis of so much of Pompanazzi's reasoning on this point—that plurality of substantial forms in a single body is impossible, that there is no interpenetration of self-subsistent beings (212). Such an interpenetration seemed for Aristotle to be equivalent to the Democritean view of the soul as a real substance composed of fine atoms, which had "an especial absurdity of its own" in that it meant that two bodies would have to occupy the same place (213), and the assumption of this equivalence, arising from his idea of substance, plays a large part in his rejection of the Platonic "participations" of the separated ideas (214). The solution to the problem of uniting the two distinct and dissimilar entities which faced those who rejected the Aristotelian position was frequently supposed to lie in the postulation of some intermediate links. Thus Ibn Gebirol: "Si inter distantia non esset distantia...anima distat a corpore...si non esset spiritus, qui est medius inter animam et corpus, alterum non coniungeretur alteri."(215) Similarly Roger Bacon, accepting Aristotle's "actus dividit" and interpreting "actus" as "actuality," admits that two completely realised beings cannot be united to form one; the soul therefore as it is both "ultimate form" and separable substance, cannot be united directly to the body, but is so only through the media provided by the nutritive and sensitive "souls" which precede the presence of the former in the body in time and which are not "created" but arise out of the potentialities of matter, and are corruptible (216). Dee, in his tenth proposition, returns to the problem presented by postulating a union between entities so different as body and soul must be if the latter is separable and incorruptible: even supposing the soul not to arise from the seed, and to be exterior to the generated man, it enters that place where it must exercise its specific operation — and all forms have such definite operations — therefore for this reason it will only preserve this in union with the body it has entered. A further difficulty is stated in the eleventh proposition: If the soul were eternal the body could not contain (seize hold of) it, since according to Aristotle nothing can hold the eternal. The reference is possibly to Aristotle's discussion of the function of reproduction in living things; they yearn for a share in the eternal and divine, which is the Final Cause of their activity, but no individuals can lay hold of it; though by reproduction each partakes of it in a sense, persisting in some sort, by this attempt at self duplication and transmission of life, in another entity which is specifically though not numerically one with itself (217).

Dee continues the argument through the next two propositions. The twelfth extracts a contradiction from its initial premiss: The soules immortal and also the form of the body (218); (the Philosopher laughs at the Pythagoreans who say the soul uses the body as an instrument, and the same soul may enter the bodies of diverse animals), for is it possible for the soul to be the form of the body without being dependent on the body, and to any less degree than accident must adhere in substance? Indeed since a truer unity is formed out of soul and body than from substance and quality then insofar as accident is denied to endure without substance, even less could the soul endure without the body. Dee follows here the Averroist interpretation of the Aristotelian formula, he states in effect one of the Averroist positions condemned at Paris at the end of the thirteenth century (219) and which Pompanazzi revives arguing that "forma simul incipit esse cum ea cuius est forma" that forms only continue to exist in composition with matter, that therefore, as a particular body was essential for the existence of a soul, it could not be immortal, and that if the

soul were a self-sufficient essence, as Aquinas claimed, then it was excluded from functioning as a form (220). Dee continues (proposition 13): If man's soul is a unity, then it is either a sensitive soul that also understands, or an intellectual soul that feels; either type of being is liable to death. While if these are separate, man will be two; he will take on the character of two animals and three living beings. This question again runs like a thread through Pomponazzi's discussion. He begins by taking it as generally admitted that the sensitive and vegetative souls are bound up with bodily operations, and that the only remaining question is whether the understanding and the will are separable and immortal. He then enquires whether the soul as a whole is not a unity and whether "Socrates" can really be mortal in one part, and possess another soul that is immortal, and concludes that the intellective and sensitive souls are not absolutely distinguishable and therefore his opponents must in effect assert that the same thing is both mortal and immortal (221). The argument for the unity of the various "souls" in man and the necessary admission of the perishableness of this totality that follows, arises here, as in Dee, from the dependence of both on the senses; this Pomponazzi cites Averroes: that if we understand "quod intelligere non sit nisi cum imaginatione, tunc enim intellectus materialis erit generabilis et corruptibilis, sicut intelligit Alexander."(222)

Dee's seventh proposition states this position: Intellectis moved according to its objects; actual objects are sensible, therefore the character of the intellect is dependent on sensible things; if the sensible perishes, so must the intellect. This, though the *de Anima* contains passages on the separability of mind contrasted with the dependence of the imagination on bodily function, which might indicate the reverse of this conclusion, accords well with its general drift, which emphasises that lower faculties of the soul, as is obvious from the scale of actual beings, can exist apart from the higher, but that the presence of the latter must always presuppose the lower; that "intellect (...whereby the soul thinks and conceives) is nothing at all actually before it thinks," and that "Nihil est in intellectu quod non prius in sensu"; for "since apart from sensible magnitudes there is nothing, as it would seem, independently existent, it is in the sensible forms that the intelligible form exist, both the abstractions of mathematics as they are called, and attributes of sensible things, and for this reason, as without sensation a man would not learn or understand anything, so at the very time when he is thinking he must have an image before him."(223) This, leading to the conclusion Dee draws, is a frequent argument of Pompanazzi, who insists that for man, the universal can only be known in the particular, the idea in the image, the intelligible through the sensible, that, however spiritual the functions of the intellect seem, they can be only exercised through the organised body. Thus, since from Aristotle's authority it appears that "intelligere aut esse phantasia aut non esse sine phantasia....Nullum igitur modo intellectus humanus, secundum Aristotelem, habet operationem prorsus a corpore independentem....Ergo anima intellectiva est actus corporis organici quantum ad sensationem, hoc est pro suo intellectione, ergo in omni suo intelligere, indiget phantasia. Sed si est, ipso est materialis, ergo anima intellectiva est materialis" and consequently perishable (224). It is of interest, in view of Dee's elsewhere professed predilection for the metaphysics of Avicenna, to note the reiterated demonstration of that philosopher that at least some knowledge must be independent of perception and also positive in content and certain. This Avicenna holds, is proved by supposing a perfect man created in the void, and thus receiving no data from any of his sense organ: such a being, he argues, would still consider its own existence proved, which knowledge must therefore be a primary intuition, reached by the pure operations of reason unassisted by sense (225). This of course was only cogent on the supposition, accepted by all parties, that separated intelligences existed which made use of reason, and the concealed, and disputed, assumption that the "reason" employed by these was identical in kind with that employed by man, and also that the development of the faculties of the body and mind to "perfection" or maturity (in which condition Avicenna's hypothetical man is created) is a simple form of growth from within, like physical increase, and not a result of complex processes of interaction with an external world through the various organs of the body which alone transforms what is potentially an ability of the mind into actuality. That this is necessarily the case is of course the precise claim of Aristotle, who declares this abstract self-consciousness (which Avicenna's man is supposed to enjoy) to be only the final stage in the cognitive process, beginning in simple reaction to sensible stimulation; it is only "when the intellect has become everything," when it has "learned and discovered" all lower, more concretely representable things, that then "at this stage intellect is capable of thinking itself," (226) that is: mind perceives itself not directly but per accidens and only in contra-distinction from all other things it thinks.

Dee's second proposition is also upon this theme; he demands: whether man's soul can be considered to have been made immortal in order that it might be able to use reason, and the use of reason be the criterion that distinguishes man from other souls (animated beings), when actual

reason by man is no more than a certain "power of jumping" (via resiliendi) from one imagination to another and from one thought to another. This description seems very inadequate to the high idea of Reason usually found in Dee and on which, as a divinely guided purposeful process, almost creative in the originality of its operations, capable of discovering through its own activities the secrets of nature and of comprehending the underlying reality of the universe he later lavishes his praise. but the present proposition reflects the sharp rift occurring in Pomponazzi's cosmology between the sublunar and supralunar realms, which extends to the modes of cognition proper to man, and to the celestial intelligences and God, who alone have full and immediate knowledge of universals and intelligibles, which subsist in them unconditioned by, and in complete independence of images founded on sensations. Dee's proposition arises out of the previous one which heads his list, summing up many of those previously discussed in its juxtaposition of the implications of these and the thesis of the soul's survival after death in separation from a body: to what end will it be eternal? And can there be substance unoccupied and without function (*ociosa sine opere*)? Otherwise, since it will henceforward use neither senses nor life, so will have to be newly endowed with some other functions. Once more there seems to be a direct echo of Pomponazzi, who declares that a postulated survival of the soul, if in all other respects this is regarded in conformity with Aristotle's deposition, leads to contradictions: "vel, si esset, sine opere esset, cum sine phantasmate, per positionem intelligere non posset, et sic otia retur"; and again "Vel igitur, post separationem habet potentias quibus exercere possit sua opera, vel non. Si secundum videtur contra naturam, quod aeterno tempore sit manca et totaliter privata, nisi recurratur ad resurrectionem Democriti vel ad fabulas Pythagoreas, si autem habet, cum careat organis, quibus fungitur proprie opere, sequitur iterum quod illae potentiae sint vanae."(227) Or elsewhere "Altera difficultas est quod operetur anima a corpore separata. Si nihil anima erit frustra, nihil autem videtur operari, quia hoc maxime esset intelligere, quia anima per phantasmata intellegit, quae sint in corpore, si autem non habet intelligere, nec habet velle."(228) The future state of the soul, as envisaged by Dee, unless it be given new faculties is precisely that which Cudworth, holding that "soul" needs always to be united to some body, ascribes to "those of animals," if one lets his suggestion of the "serial vehicles of the souls of brutes go for a whimsey or meer figment, nor let them be allowed to act or enliven any other than terrestrial bodies only, by means whereof they must needs be, immediately after death, quite destitute of all body; They subsisting nevertheless, and not vanishing into nothing, because they are not meer accidents, but substantial things: we say that in this case, though the substances of them remain, yet must they needs continue in a state of insensibility and inactivity unless they are subsequently reunited to a body"; this state he finds less inconceivable from the proximate examples of sleep and hibernation, adding "Upon which account, though these souls of brutes may be said in one sense to be immortal, because the substance of them, and the root of life in them, remains, yet may they in another sense, be said also to be mortal, as having the exercise of that life, for a time at least, quite suspended."(229) The possibility that the soul on separation from the body is deprived of all the knowledge and abilities it has acquired in life as here envisaged by Dee, is mentioned also by Augustine, and with extreme horror, as removing all purpose from the immortality it is supposed thus to participate in; the final theme of the *Soliloquia* is the expression of the fear "ne mors humana, etiamsi non interficiat animam, rerum tamen omnium, et ipsius, siqua comperta fuerit, veritatis oblivionem inferat....Qualis enim erit illa aeterna vita, vel quae mors non ei praeponenda est, si sic vivit anima ut videmus eam vivere in puero mox nato...."(230) Upon the theme that men exist only as composite beings, that the activity of their souls, insofar as they are individual men, is inseparable from their bodies, Ronsard builds an entire elegy, which bears in some editions the marginal annotation that "this is the opinion of Aristotle which is false"; the whole might figure, as an illuminating and faithful expansion of Dee's brief text (231). Its grounds here are to be found in the later propositions, that a thing is to be known by, and is in fact in itself, what its essential operations are, and, as Pomponazzi affirms, "Unius rei est tantum unus modus operandi essentialis"; from which premisses the mortality of the soul, or at least the uselessness of its survival, is to be inferred — "Tota radix hujus positionis innititur ei fundamento, scilicet quod intellectus humanus non habet nisi unum modum intelligendi" (232) and that therefore the Thomists' acceptance of the Aristotelian epistemology, not only as casually but as necessarily true for the soul in its earthly existence, must render it impossible for them to establish any logical connection between the soul as known in this state, and a continuance of its being, while retaining its identity, in conditions where they allowed that a totally different cognitional situation must maintain. For Pomponazzi argues, diversity in types of knowledge — that is as images are or are not a necessary accompaniment of thought — indicates diversity of essence; he quotes Averroes: "Si qui essent homines, qui non eodem modo cognoscerent sicut nos, non essent eiusdem generis

nobiscum."(233) Roger Bacon escaped the difficulty by declaring that for beings limited by composition such as man, operations are distinct from essence (quoting Boethius' dictum "Nobis vero non est idem esse quod agens, non enim simplices sumus,"), that the "species" of all things must be innate in the soul, since even if they be judged superfluous in the present life they will be requisite hereafter (234) and by following Avicenna in an account of this future state which seems in close accord with Dee's own usual intellectualised "Platonism": "As regards the speculative intellect the soul will become, according to Avicenna, an intelligible world, and there will be described in it the form of the whole universe and the order of all things from the beginning, namely God, both through all spiritual substances, and the heavens etc. until there is perfected in it the arrangement of the universe so that it may thus pass into the world of intellect, perceiving that which is perfect beauty and true grace," while the active intellect will, by absorption into this world and by total diffusion through "soul" be also capable of apprehending other delights than those arising from the arrangements it has hitherto perceived merely in sensible things (235).

VIII. Dee draws another consequence of the soul's survival in the third proposition: No extent suffices to contain an infinity. The number of souls is infinite, therefore the world (i.e., the universe) cannot contain them. This certainly is most absurd, that this infinity of souls increases in number daily which is contrary to the nature of infinity. The "absurdity" of the second argument, Dee's formulation seems to imply, renders the first almost unnecessary, since, granted the Aristotelian eternity of the world, the second reason follows automatically and there is no need to find another in the supposed occupation of space by such entities. The dilemma appears in Pomponazzi also; if generation of souls is denied, recourse would have had to be had to a Democritean or Pythagorean recurrence, or an actual infinity results; and later, "Immo si mundus est aeternis, ut opinatus est Aristoteles, infinitas infinitae formae sunt actualiter sine Corpore. Quod apud Aristotelem ridiculum videtur." (236) But the point at issue goes deeper than the merely physical problem of the possibility of the existence of an infinite magnitude or the coexistence of an infinite number of magnitudes or the coexistence of an infinite number of magnitudes which Crescas undertook to maintain against the Aristotelians: though it is of interest that, apart from his instancing of the "void," Crescas' arguments are only drawn from mathematical conceptions, such as the infinite divisibility of a line, and that he resolves the query Dee makes about an augmenting infinity, by arguing that one infinity can only be said not to be greater than another in the sense that neither would be directly measurable, but at the same time two lines, he suggests, can be imagined both, in one direction, extending to infinity, while as to their opposite extremities we are at liberty to terminate the one as far short of the other as we like, in which case they both remain infinite in length and the one is never then greater than the other, while both are capable of increase on the side at which they are limited (237), and he thus applies to space, which he conceives of on the Euclidean model, what Aristotle had admitted to be true for time, that it was infinite as to its past, limited at the present and capable of extension into the future. But the central problem here was whether the infinite, in distinction from the merely indefinite, should be admitted as having any place in mathematics or thought, whether it could be a genuine concept at all, or predicated of any reality, and again what it was that rendered a thing numerable. Plotinus seems to have been the first philosopher to have admitted infinity (which had been associated by the Greeks with all their horrors of the Indefinite and Unconditioned) into the "intelligible world," when he postulated the existence of separable "forms" of human individuals (238). Aristotle had held that there could never be an infinity of objects, if these admitted of "order" with the possible exception of occurrences in temporal sequence. Avicenna had therefore attempted to interpret "order" in a way which would not apply to souls or intelligibles, but Averroes had rigidly maintained that the totality of all things that could be distinguished one from the other must of necessity be finite (239). In the long and involved controversy of the latter with El Ghazali the nature of "the infinite" was one of the principal questions at issue (240); when however El Ghazali writes "Furthermore we argue against the philosophers thus: even according to your own principles it is not impossible to assume at the present moment there exist things which are units qualitatively different from one another and still are infinite in number, namely the souls of men which have been separated from their bodies at death..." (241) his reasoning is not directed to establishing this as a fact—he holds it to be an absurd conclusion — but to refuting "the philosophers'" doctrine of the eternity of the world from the assumption of the separate existence of the soul, which he holds to be comparatively more certain, and thus establishing the necessity of a special creation in time. Dee's argument is two edged, and it is not impossible that he was himself ultimately prepared to employ it in this way against the Aristotelian eternity of the world (the Aphorisms of 1558 open with the assertion of a general Creation). Superficially however, despite the possible interpretation of "absurd" as applying to the notion that souls were numerable at all in an ordinary sense, since this was sometimes held to be only true of what was conjoined with matter, he seems to be putting the orthodox Averroist view. Thus Averroes writes "I do not know anyone who makes a distinction between that which has position and that which has no position with reference to infinity except Avicenna....the philosophers reject an actually infinite number of forms whether it be corporeal or incorporeal, inasmuch as that would imply that one infinite can be greater than another infinite. Avicenna only meant to ingratiate himself with the multitude by advancing a view concerning the soul which they had been accustomed to hear"; he adds that its absurdity is further evident from the consequence that if there were an actual infinity the part would be equal to the whole (242).

Dee examines another aspect of this question of the numerability of the souls of the dead in his fourteenth and final thesis: If there are many [immortal souls] they must then differ either in number [i.e., as individuals, numerability is the necessary accompaniment of any real differentiation] or species, and there would then be as many species of men as there are individual men. For if they do so in number, and the differences arise from the "form" it is again necessary

to accept different species of men; and if they arise from matter then the differences are liable to corruption on account of this, or if they are supposed incorruptible they cannot have depended on the material. Hence by this reason men have no [immortal] soul unless it is actually one, and common to all. Here Dee turns to the second horn of the very ancient dilemma he has been examining: that is, either all the powers of the soul, including the "nous" evolve from or develop in conjunction with the senses and organic functioning of the body in which case they will perish with these; or, as here, it may be suggested that these powers are due to the supervenience of something from outside men considered as particular organic bodies in which case this will be necessarily impersonal transcending all individuality. It would of course be a very thorny question to enquire whether Dee's simple diaeresis into differences resulting from species and number represents a truly exhaustive disjunction, and a point of some delicacy is also whether in fact a certain amphibology does not enter into his use of the term "species." (He perhaps has in mind Aquinas' doctrine that individual angels were all distinct species and each the only member of its kind.) Dee appears to regard these as produced by separate forms, all differences in which were necessarily essential, and therefore could in one sense be said to result in separate species, at the same time he does not question the equivalence of such a definition with the more familiar use of the term arising from an empirically based classification of organisms — with reference to which "Man" is accepted as designating a single species; and thus Dee seems to reject out of hand the possibility that acknowledged members of the same species in this last sense could possess any difference of "form." His conclusion as regards their "souls" may be illustrated from a passage of De Anima, which arises from some reflections which seem to be the source for Dee's immediately preceding (13th) proposition, in which he considered whether one or several souls should be ascribed to the individual. Aristotle after considering how far the soul is a unity, suggests that it is logically divisible according to function, but only actually in so far as fission will alter it numerically though not qualitatively: thus the imposition of material discreteness can multiply individuals from the same soul: "It is found that plants, and among animals certain insects or annelida, live when divided, which implies that the soul in their segments is specifically, though not numerically the same....But none the less all the parts of the soul are contained in each of the two segments and the two halves of the soul are homogeneous alike with one another and with the wholes, a fact that implies that, while the parts of the soul are inseparable one from another, the soul as a whole is divisible."(243) Dee's conclusion relies on the doctrine that incorporeal beings are not numerable (subject to number), except when incarnate in bodies, since plurality is an accident of body. The dispute was of long standing; early in the twelfth century Guillaume d'Auvergne had already attacked the Arab Aristotelian commentators for making matter the principle of numerical discreteness, since the consequence of this doctrine must clearly be that after death all souls become a single substance losing their particular faculties, personalities and individualized knowledge (244). Crescas similarly, pointing out that, unless the immortal part of man "is only the predisposition which unites with the active intellect and becomes one with it," which is false, souls as such must be numerable, seeks to discover some other criterion of difference by which they may remain so after separation from the body but can only suggest that it is to be found in the varying degrees of the comparative completeness of their subsequent union with God (245); he does not attempt to meet the formidable, though perhaps not insuperable objections, that at once present themselves — for proof is required that a one to one relation between the members of the group of souls and of such discrete stages in a hierarchy of value levels must necessarily maintain, since individuality can only result in this scheme from the unshared singular possession by the soul of one such level, or degree of absorption. The difficulties illustrate the strength of the solution that a universal hylomorphism claimed to offer, of which Cudworth, previously quoted on this point, was a late exponent. But it is interesting that Augustine setting out the same problem as Dee displays as pointing such a sceptical conclusion, is able to offer only a theological not a natural solution (though he finds it in Plato's words). Insisting that the soul can survive only in a body, yet he admits that, naturally, it is impossible, as Dee points out for matter, and composite substances to be considered incorruptible — therefore the impossible in this case will be performed by the fiat of God; his authority is the speech Plato gives to the Demiurge, addressing the incarnate gods "these your bodies by My will are indissoluble, although every compound may be dissolved...seeing you are created, you are neither immortal nor indissoluble; yet shall you never be dissolved, nor die: these shall not prevail against My will, which is a greater assurance of your eternity than all your forms and compositions are."(246) Finally it may be noted how in one respect Dee's proposition offers a curious echo of one of Ibn Gebirol's arguments on the theme that all things corporeal and incorporeal are composed of matter and form. Dee is here asserting that no particularity is eternal if it is a function of what is

composite and therefore perishable, but differences between forms considered in themselves are imperishable; these are simple substances, but for this reason such differences between them must denote difference in essence, and cannot make appearance in what are known to be members of the same species (the immortal part of these — the soul — being their form). Ibn Gebirol, discussing "simple substances," decides that these could not be "matter," "quia materia rei una erat, non diversa in se, et quia actiones formarum sunt, non materiarum," but if they are considered to be "forms" then "Si hae substantiae simplices sunt una forma, unde factae sunt diversae?...Si diversae essent se ipsis, in nullo convenirent umquam....Si sic essent diversae in perfectione et imperfectione, deberet hic esse sustinens aliquid perfectionem et sustinens imperfectionem etc." (247) which lead to a denial of their possibility.

Dee's fifth proposition formulates other difficulties in considering the soul as capable of existing apart from the body; it consists of a loose linked, rather lengthy and involved string of questions and statements; it begins: The soul is "in place," hence perishes: for form must necessarily be in place, since body and man are, and even God and celestial intelligences can be said to be in place by substantive operations — phys. 8 de Caelo I — (248) after death where will the soul be? or by what means can it be thought to proceed to such a place? By locomotion or change? (i.e., the two possible alternatives in Aristotle's four types of motion). Neither; since in separation from the body it can neither move nor change merely of itself, nor can it totally transform itself as it was made to function in that place. It first began to be there when the carcass became an animated body; and Dee therefore considers what must consequently be the purpose and limits of its functions, concluding that the "higher" part of man existing as quality in the body and not occupying space by its own nature will effect changes of quality per se, and be moved locally per accidens. But nevertheless this active motion that takes place according to quality, has its results in the body not in the soul, and therefore the soul, at death, cannot make use of this kind of change to attain another place for its further existence, place is the prerogative solely of the carcass. The theme is paralleled in Pompanazzi, who on the postulate that the soul is not corrupted at death, and assuming additionally metempsychosis to be fabulous, finds these same difficulties will arise in allowing the soul on separation to proceed to Heaven, Hell, or Purgatory "Quaero per quid fit iste motus; vel per alterationem, vel per motum localem, et quaro de via perquam vadet..."(249) The source is Aristotle's argument on the nature of motion and how far it may be ascribed to soul in De Anima I, 3, and book 8 of the Physics; perhaps particularly his statement that nothing which has not parts can be in motion, and that which moves itself, though not every cause of motion in some other entity, must have magnitude (250). This last implied, according to Crescas, that anything that could move was divisible and hence not eternal, but he proceeded to suggest therefore, as Dee, that this was only true of what "moved essentially, for that which has only accidental motion we sometimes find to be indivisible" as the soul, moved through the body (251). This of course is Aristotle's own theory of local motion as admitted by the soul; but in addition Aristotle denies to it any type of self-originated motion, particularly the capacity for "qualitative change," for "all motion being defined as displacement of the thing moved qua moved, it will follow that the soul will be displaced from its own essential nature, if it be true that its self-movement is not an accident, but that motion belongs to the soul in and of itself," (252) while "motion in respect of place" is the only type he allows as possible to eternal beings (e.g., the stars) and all things that move of themselves, and makes it indeed the primary type and "the principle of all motion."(253)

Dee's eighth proposition is the only one in which there seems to be a hint — though it is little more, of a possible deviation from Aristotelian doctrine; significantly the subject which suggests this is the nature of the understanding. It declares: Neither the active nor passive intellects would be of use to us, even granting that both the one and the other may be immortal. Aristotle denies that the active intellect without passive, or passive without sense can understand; thus the intellects' understanding would be extinguished with the senses, even though both survived them. He (Aristotle) does not say that understanding must involve the consideration of images of things by a more inward (more secret) sense; i.e., Aristotle's position implies that the intellect has not the active property of considering things under representations of a kind peculiar to itself; that is, essentially different in kind to images based on the phantasms of the passive receptions of the senses. Here perhaps are suggestions of a view of the function of sense, which is typical of a neo-Platonist scheme. Very many only superficially different formulations of such a view — that the sense while it offers indispensable assistance to the incarnate mind in realising its potentialities, is none the less not an invariable accompaniment or the necessary foundation of its operations. Thus for Grosseteste the senses excited the soul to a memory of a former knowledge of intelligibles, or in Culverwell's phrase, which sums up the doctrine of many of the Cambridge Platonists on this point they allow "sparks" to enter which light the internal candle flame of knowledge (254);

Avicenna holding the soul was born with the body, allowed the senses a necessary role in its development and in the elaboration of concepts, while finally they stimulated it to a direct reception of intelligibles from the separated active intellect, the soul thus in association with the body acquiring a "habit of existence" and individuality which persisted after the dissolution of its original host (255). Dee's view here finds expression in Augustine, with the same type of example from mathematics Dee himself usually produced; speaking of the "understanding" as for instance evidenced in the study of geometry and how in investigating all abstract or metaphysical subjects generally the senses play the role of a ship that can carry one only part of a journey, since limited to one type of region, Augustine writes "Imo sensus in hoc negotio quasi navim sum expertus. Nam cum ipsi me ad locum quo tendebam pervexerint, ubi eos dimisi (he continued the journey on land, that is the investigation by pure reason)...Quare citius mihi videtur in terra posse navigari, quam geometricam sensibus percipi, quamvis rimo discentes aliquantum adjuvare videantur."(256) It was perhaps important for Dee to insist on the possible immortality of the passive intellect; for it might prove necessary to admit the impersonal status of the active intellect as a consequence of the attempt to maintain both the "unity of truth," and that in some way this was uniformly accessible to all men, for otherwise the foundation of any genuine certainty of any statement surpassing the record of immediate personal sensation, dissolved into subjectivism. Thus Roger Bacon, in order to maintain the Augustinian position that all knowledge is a result of Divine illumination, and to explain his defence of its — at least partial — revelation to ancient ethnic philosophers, proclaims the Unity of the Active intellect and makes the passive the immortal personal part of man (257). Dee's proposition is not necessarily in disaccord with all interpretations of Aristotle, despite Dee's apparent feeling here that the thesis on which the Averroists and Pomponazzi insisted so continually that thought was either a matter of images or could not take place without these, suggesting the complete dependence of the mind on sense, contradicted the obvious faculties of the Intellect. For passages in Aristotle also admitted that the intellect was orientated towards different objects from the sensible and possessed a faculty for knowing these in a form differing from any presentations of sense: "if thinking is analogous to perceiving, it will consist in a being acted upon by the object of thought....This part of the soul, then, must be impassive, but receptive of the form and potentially like the form, though not identical with it, and as the faculty of the sense is to sensible objects, so must intellect be related to intelligible objects."(258) This last comparison becomes a commonplace in all schools, except that in neo-Platonist writings the concept of the self-existing "soul" tends to replace the material intellect as that to which is ascribed this natural similarity to forms, and ability to receive them directly. Thus Ibn Gebirol: "intelligentia est locus formarum intelligibilium....(and) Sicuthyle est virtus receptibilis formarum sensibilium, similiter anima est virtus receptibilis formarum intelligibilium."(259)

IX. Now although these propositions differ radically in many respects from Dee's established views, the possibility cannot perhaps be definitely excluded that he, in fact, held the soul's immortality to consist merely in some sort of depersonalised survival as a part of the Active Intellect, which is the only kind his arguments here would at all permit. He firmly accepted the real existence of Intelligibles, and also of "Things Spirituall" which "are immateriall, simple, indivisible, incorruptible and unchangeable," (260) but he gives no hint as to a principle of individuation among these things that would escape the dilemma he has propounded that the souls of men in a future existence must either differ by material features that are corruptible and therefore still only temporary, or essentially so that each is a distinct species. Indeed no quality is obvious in his contrasting of things spiritual with the mathematical, among which the last principle of differentiation must presumably be the criterion for distinguishing the individual entity, which would suggest that any other principle by which this could be effected, maintained in the spiritual world. Entities at the two levels rational and supernatural are presented as similar except in degree of abstraction, and intellectual comprehensiveness, the mathematical "are not so absolute or excellent," they are above sensibles "Nor yet, for all that, in the royall mynde of man, first conceived," they are above opinion but "commyng short of high intellectual coceptio [the essence of spiritual things], are the Mercurial fruits of Dianoeticall discourse, in perfect imagination subsysting."(261) Now although Dee sometimes refers to "the Life and Blisse Aeternall," nowhere does he indicate that this is "personal" in the usual sense of the word, he would seem to conceive it after so intellectualised a fashion — the Benefits that the soul enjoys being increase in knowledge, apprehension of truth immediately, an approximation to the condition of a pure intelligence — that the implications of this expression as employed by Dee would seem to be quite consonant with a fusion with the common Active Intellect. Indeed the Preface commences with an account of how many drawn by curiosity rather than love of truth to learn of the Good from Divine Plato, were disappointed in "hys profound and profitable doctrine," when they "perceaved that the drift of his discourses issued out, to conclude, this Unum, Ronum and Ens to be Spiritually Infinite, Aeternall, Omnipotent, &c. Nothyng being alledged or expressed, How, worldly goods, how, worldly dignitie: how health, strength or lustiness of body: nor yet the meanes, how a merveillous sensible and bodyly blysse and felicitie hereafter, myght be atteyned."(262) Indeed it is probable that Dee placed the "felicitie" of the separated soul, as Avicenna held it to be, in the mere eternal contemplation of the intelligibles. A frequent tenet of neo-Platonist systems was that all existence was derived from such a process, its various levels resulting in the case of inanimate entities from the degree to which they manifested intelligibility and in the case of animate beings from the developed capacity of their understandings. Thus Malebranche quotes from Augustine "La Sagesse eternelle est le principe de toutes les creatures capables d'intelligence...elles se tournent vers leurs principes: parce qu'il n'y a que la vue de la sagesse eternelle qui donne l'etre aux esprits..."(263) The relevance of this arises from the fact that analyses of the nature of the soul made from such a position do not easily ascribe characteristics to it that would seem in any way to preserve its singularity or separation. Thus to cite a specific instance — from a later thinker, but not wholly disparate from Renaissance Platonists in this respect, though his formulation is perhaps simpler and more explicit — Malebranche reduces the qualities or essential operations of the soul to two, Will, which is "le mouvement naturel qui nous porte vers le bien indetermine et en general" and the Understanding, but this "faculte de recevoir differentes idees et differentes modifications dans l'esprit est entierement passive."(264) Applying such a description to the problem of souls' survival as individual entities as Dee presents it, it follows from the singleness of truth and passivity of the understanding that the principle of differentiation should be sought in the Will. But the Will is never unmotivated and therefore though it may serve this purpose while the soul inhabits a body and is aware of multitudinous and conflicting "motives," affected by sensible delights, the passions, or intellectual "values," and where the level attained by the intellect in some sort results from the variations possible in the Will (since knowledge is attained in that state only, by a concentration and application which are themselves voluntary actions) yet in the case of the discarnate spirit it can no longer be invoked for this end, since the motives impelling the Will are then confined to the presentations of the only remaining faculty, the soul, now utilises — that is the understanding, and must therefore be dependent on it, a pure function of this — while the understanding itself is now a vision common to all, insofar as it is no longer variously distorted by the impediments resulting from the imperfections of particular bodies, and as intellectual truth is then known without a discursus, the objectivity Platonic thought ascribed to it being then directly contemplated — the possibility of diversity in this supposedly particular understanding such as could have arisen in a previous state when error could creep undetected into the long chains of deductions by which only intellectual knowledge might be attained, is excluded.

but one must perhaps conclude that although the notion Dee apparently held of the soul's functions and future felicity in so far as it was eternal would lose nothing at all had he considered man's immortality to consist merely in that part of him that now and hereafter participated in the universal Active Intellect, his lack of any explicit declaration that would contradict this cannot be regarded as very sure evidence that he embraced a doctrine of this sort.

These notes of Dee then, which would seem to be of an entirely private character are of interest in that they perhaps point to a transitional stage that was of some importance in his philosophical development; since what he takes as "Aristotelian" premisses he shows here lead to conclusions incompatible or at least discordant with what could be known as true in another universe of discourse, or could be accepted on other, for example, religious grounds. (It is of interest that many opponents of Aristotle in the sixteenth century demand the rejection of his system on the grounds that denial of the immortality of the soul was an intrinsic part of it (265) a complaint that compared with the other charges of irreligion previously often brought against him such as the denial of a creation in time, seems to become prominent in the Renaissance.) Therefore, the alternative would remain of altering the premisses and method of enquiry, or denying at once the possibility of attaining intellectual certainty, and the validity of any philosophical investigation with regard to large, and the more important, sections of the real world. Dee's propositions are however also of interest as showing a thinker of the late Renaissance of predominantly scientific interests, and closely connected with practical and technological progress, pursuing a profound and speculation in thoroughly "scholastic" terms, and one founded largely on the authority of a text — in the sense that propositions from it are taken as the starting point from which deductions are to be made — and one that had given rise to a multitude of philosophicad commentaries through the centuries, Aristotle's *de Anima*. It should perhaps be pointed out that, despite close parallels almost throughout with Pompanazzi, Dee who claims these reflections as his own, neither here nor elsewhere directly mentions him. It is even possible that his acquaintance with his thought — with the exception of *de Incantationibus*--was made chiefly through the "confutation" produced by Nipho, from whom indeed Dee appends a quotation at the end of his own propositions (to the effect that according to Alexander the soul arises from the seed, and unless the intellective soul is generated in this way man cannot be the result of only a single generation — its joining to him as form will constitute a second according to Aristotle's definition). The writings of Nipho Dee seems to have collected assiduously throughout his life, more especially his Aristotelian commentaries in many cases accumulating duplicates as well as the various separate editions. In some respects he was of a similar cast to Nipho, whose thought is a typical example of Renaissance syncretism, and of whom, though he professed himself a follower of Aristotle, it has been observed "Il suo aristotelismo era il ritorno, su quante v'era di Platonico in aristotele medesimo."(266) He employs all the Platonic arguments in defence of immortality, though he remains undecided, as Dee does here, between accepting the Averroist unity of the separated intellect and the multiplicity of souls of the Florentine Platonists. His position is perhaps medial; for taking Averroes' description of "felicity" as resulting from the joining of the potential to the active intellect, he proceeds to identify the active with God and the "potential" with the individual human soul, and he addressed Pompanazzi in one of his polemics in words that are very similar to Dee's usual tone, in contrast with that position which he seems temporarily to have assumed in these propositions: "Come puo una forza, in nulla superiore ai corpi, cose paramente bramare cio che e spirituale, venerarlo, sequirlo? Si tu avessi letto il *De Pulchro* Platonico vi avresti facilmente appreso che Dio — come dice giustamente pitagora — plasmando l'uomo, affinche potesse scorgere le cose sublimi, sante e piu lo alzo da terra volgendolo alla contemplazione del sui fattore."(267)

X. The sceptical nature of these propositions and the preoccupation with Aristotle they reveal make them very unrepresentative of Dee's thought in general. But no other writing of his survives dealing philosophically with matters of such theological consequence. However, the implications of many passages in his works are unmistakable. They were evident to his contemporaries and accepted or denounced as representing a very definite metaphysical doctrine, and one that was regarded by many as quite as dangerously heterodox, though in a very different manner than the position he expounds in his proposition would have been. This can best be shown and the awareness of others of the neo-Platonic intellectualism in his work (which was closer at times to Proclus than to Clement — so that he was accused of Pelagianism, ignoring original sin, belittling the function of Grace and concentrating on such abstraction as the Trinity with an accompanying neglect of Christ), illustrated by selecting the relevant passages from a controversy that broke out in his latter years — though he neither personally participated in it nor was ever referred to by name — over some statements he had made in the Preface to the English Euclid.

The theologian John Chamber in 1601, more than thirty years after the publication of Dee's Preface brought out his sweeping attack on astrology, the general character of which has been already noticed — it was virulent, anti-scientific and ill-informed as to the doctrines it denounced. In it he had occasion to ridicule Pythagoreanism and numerology and seems to have selected Dee as an extreme example of the pernicious pretensions of believers in these. He writes "Some do not sticke to affirme that by the misteries of numbers we may attain to know the mistery of our salvation, and election, and how are names are registered recorded in God's booke. Because I would not do any man wrong in so waigtie a point I will set the words downe as they lie in a certaine Mathematicall Preface, and they be these. `Yet from these grosse and materiall thynges, may be led vpwrd, by degrees, so, informyng our rude imagination toward the conceiying of Numbers absolutely (Not supposing, nor admyting any thyng created, Corporall or Spirituall, to support, conteyne, or represent those Numbers imagined:) that at length, we may be hable, to find the number of our owne name, gloriously exemplified and registred in the booke of the Trinitie most blessed and aeternall? What can here be meant, but that by numbers we may finde out in what state we stand with God? We are taught that the spirit of God testifieth to our spirit, that we are the Sonnes of God, but of the testimony of numbers, I do not remember. Againe, what is here meant by numbers, I cannot readily say; but if it may be lawfull to ghesse I would take it to be those numbers which Horace ed. 9 Lib. I calleth Babyloni, that is certaine conjuring numbers, by which to seeke to know things to come, as is there said, is Nefas. Thus we see that even the heathen and infidels shall rise to condemme us in this point."(268)

In 1603 Sir Christopher Heydon, an associate of Essex who writes here as if he were a personal friend of Dee (268A), produced a closely printed volume of some 558 pages in refutation of Chamber's criticisms of astrology. In the course of this point-by-point examination of Chamber's work, Heydon takes up the cudgels in defence of Dee, exclaiming of Chamber, "What liberty he takes to deprave the, who having shewed great variety of learning, are compared by him to Aesop's dogge that could not content himself with the bone, but would be snatching at the shadowes, and lose all." He continues, "He had as good name the partie as describe him by his Mathematicall preface, out of which though very uncharitably and like the horsefly (as Plutarch saith) that is ever sucking in sores, and such places as are unsound, he feedeth this detracting humor of his, with a conceipt that this learned man doth irreligiously ascribe so to numbers that thereby he thinketh to attaine the mystery of his salvation, and to find his name registered in the booke of God. Yet others can make a more Christian interpretation of his words. Since it is evident to him that is not blind by malice, that he intendeth nothing in that Hyperbolical, and excessive speech, but such a sequestration of our thoughts from all material things as thereby we may the more freely contemplate the mysterie of the Trinity in vnity, vntill through our whole conversion to the same, we come to be registred in the number of those that are sealed to salvation. But he lives whome it most concernes, and that can best interpret his owne minde, who if he will vouchsafe to answer it, will teach him that he hath waked a sleeping lyon and that male mereri de immerente, inscitia est. In the meantime I have thought of that Qui non defendit alio calpante; though I know he hath no need of that weake defence, that I am able to afford him."(269)

This same year George Carleton, Bishop of Chichester ("a bitter enemy to the papists and a severe Calvinist" said Anthony a Wood) wrote a reply to Heydon's work proving the original inventor of astrology was the devil, though he did not publish it until 1624, the year after Heydon's death. He may have had some direct knowledge of Dee who was a friend of Camden's, who wrote of Carleton as one "whome I have loved in regard of his singular knowledge in divinity and in other more delightful literature and am loved again of him."(270) Nevertheless, he makes the climax and conclusion of his work a section entitled "An irreligious speech of an astrologer,

who thought by Numbers to attaine the Mystery of Salvation, sifted punctually" in which he sets out thoroughly to "reprove that profane speech." He is much more aware of the finer points at issue than Chamber, but is no less severe. "Some of your Astrologers have told us" he writes, "of great power of some names of God abused, and of some words spoken without understanding. They tell us also of the Language that the angels use among themselves," all these he passes by and does not profess to criticize but Dee's statement is another matter, and he attacks its implications under some twelve heads. His first point is that numbers cannot be necessary to salvation, as all things so necessary are contained in the Scriptures. His second "We say this sequestration of our thought from Materialls, is neither Divinity nor true Philosophy; for what doe yhou meane by it? If you meane Mathematicall abstractions which consider magnitude and number, without matter, then is it impious in Divinity, to say that such a sequestration can bring to vs any Mystery of Salvation, and absurd amongst Philosophers, who put not man's felicity in that." Thirdly he declares "You erre in setting the knowledge of a believer in Contemplation; For our knowledge is in the heart, working in love and not in the braine and idle contemplation." Fourthly he finds it blasphemy to claim that the Trinity "can bee apprehended by numbers," and fifthly, such an attempt, possible or no, "is against Divinity...for, a man is not taught to know his salvation by looking upon the Mystery of the Trinity; but by looking into the Mystery of Christ his Incarnation, and Passion, wherein hee findeth his redemption; for heerin hee may finde himselfe; in the Mystery of the Trinity no man can see or find himselfe." In the seventh place (the objections not noticed here are merely elaborations of preceding ones). "Our conversion to God is not either by contemplation of numbers, or by abstraction of our thoughts from Materialls but by faith and repentence." Then he finds that Dee's statement contradicts predestination and in his eleventh objection reaches the climax of his denunciation "The manner of your speech doth breath out Pelagianisme. For you say, we may by sequestration of our thoughts come to be registred &c. Doe you not attribute this power to Man, that by the use of his natural faculties, hee may purchase this registering as you call it? For by naturall meanes, wee may contemplate numbers; by naturall meanes we may sequestrate our thoughts from all things Materiall. If by this meanes wee may come to be registred, as you say, in the number of those that are sealed to Salvation, may we not then by naturall meanes obtaine that Grace? and do you know Sir, how to distinguish this Doctrine from the Doctrine of Pelagius?" After which the final point merely repeats the same charge, with a different name attached — that Dee's statement embodies the "Damned error raked up from Hell by Pigghius that men may Predestinate themselves."(271)

Dee himself took no part in this controversy. He was probably unaware of Carleton's denunciation, which did not appear in print until many years after his death. Chamber's attack on the other hand, though Dee's silence may have indicated his satisfaction with Haydon's defence, may also perhaps have been in part responsible for his complaint to James in 1604 protesting against renewed accusations of conjuring that had been made against him and his petition, arising from this, for an Act Generall against slander. But though Dee then demanded a public trial, in order to clear himself from suspicions of necromancy, which he was fully confident he could do, whether had he elaborated his religious position he would have been able to explain away in an equally satisfactory manner the heresies apparently implied in some of his incidental pronouncements as detected by Carleton, is more doubtful. That these, in the main, were of a radically different kind from the scepticism of the propositions on the soul there is no doubt, equally, there can be no question of his profound piety and deep religious sincerity, but he must probably nevertheless be placed with such thinkers as Bruno who were led to transgress in some measure the limits of orthodoxy by their "humanist" syncretism — which eclectically embraced pagan philosophy and symbol and by an independently minded Platonic "rationalism"; which tempted them continually to an intellectual exploration of the mysteries of the Christian religion, and to prefer to an implicit faith in generally received dogma founded on humility and distrust of man's natural capacities, the conclusions of their own original ability to discover, demonstrate and adequately to comprehend all truths whether concerned with supernatural, "logical," or physical levels of existence.