The word Cabala appears frequently in sixteenth and seventeenth century Hermetic writings. Though Hermetic philosophers apparently attached significance to Cabala, the nature of the relationship to Hermeticism is largely an unexplored area. It is the purpose of this paper to investigate two Hermetic treatises, one by John Dee and one by Robert Fludd, and the Hermetic Cabala found in them.

The words Hermetic Cabala may seem unfamiliar as non-Jewish Cabala in Europe is often titled Christian Cabala. The difference between Christian and Hermetic Cabala is, in this writer's mind, one of purpose. Christian cabalists like Johannes Reuchlin and William Postel used Cabala as a weapon to bolster Christian theology whereas Hermetic cabalists like John Dee and Robert Fludd approached Cabala as a tool to be applied in understanding nature.

In both Christian and Hermetic Cabala two subdivisions existed which were derived from their Jewish parent. One was practical Cabala or Cabala masith, a type of magic, and the other was speculative Cabala or Cabala iunith. In the works to be discussed, neither Dee nor Fludd concerned himself with feats of magic performed by means of practical Cabala. They used Cabala, rather, to describe nature. It is to the methods and cosmology of speculative Cabala that one must turn to understand the cabalistic ideas found in the Monas Hieroglyphica (Antwerp, 1564) and the Mosaicall Philosophy (London, 1659). The following discussion of Cabala will limit itself, therefore, to the methodological and cosmological ideas of speculative Cabala.

Within the narrow limits prescribed above, it is hoped that the important question of why Cabala was adopted by Hermeticists will be answered in part. The subjects of this study were chosen because they illustrate two different applications of Hermetic Cabala. John Dee was enamored of the mathematical ideas of Neo-platonism. In his Monas Hieroglyphica, he approached Cabala as a means of explaining the cosmos in terms of geometrical symbols. Robert Fludd, though influenced by mathematics, was a physician and practicing alchemist. Cabala was applied by him in the Mosaicall Philosophy to validate a scientific view of the world primarily based on an alchemical interpretation of the Bible. It will be seen that Cabala had within it concepts which were adaptable to each approach.
The Hebrew word Cabala means tradition. Jewish cabalists believed that Moses received its teachings from God. Unlike the law of Moses, Cabala was to be given only to a select circle of adepts. Joshua and the seventy elders of Israel were said to be the original group. In truth Cabala can only be traced to about the ninth century A.D. and the writing of the mystical treatise Sepher Yeẓirah or Book of Formation.

Yeẓirah was incorrectly attributed to Akiva ben Joseph (fl. 130). Saadiah Gaon (d. 942), a leading Talmudic scholar, wrote a commentary on Yeẓirah as did the famous Neo-platonist Solomon ibn Gabirol, the Avencebrol of the Fons Vitae. The attention given to Yeẓirah by these prominent scholars helped to establish it and its mystical views as important aspects of Judaism. Yeẓirah contains ideas which became basic to Cabala. Besides being a standard text for Jewish mystics, Yeẓirah influenced Christian cabalists. It was translated and published in Latin in 1552 by William Postel, a Christian. Two more Latin and several Hebrew editions appeared between 1562 and 1642.

Yeẓirah is a description of the formation of the universe. Numbers, letters and words, all aspects of the Hebrew Alphabet, were the instruments of the formation. This alphabetic view of creation became an integral part of later cabalistic works like the Sepher Bahir and the Zohar. Yeẓirah was a source for the cabalistic belief in ten Divine emanations or Sephiroth. Each emanation in Yeẓirah was equated with a letter of the alphabet and represented a step in the act of formation. Later cabalists described the Sephiroth as attributes of the supreme Deity giving them names like wisdom and love.

The first Sephirah was the Spirit, Ruach, of the living God, Elohim. The source of this emanation was later called the En Soph or boundless. The Ruach Elohim was the origin of three lesser emanations, Air, Water and Fire, which were thought to correspond with the letters Aleph, Mem and Shin. Six final Sephiroth arose in turn to complete the heavenly realm. They were Light, Depth, East, West, North and South. The ten Sephiroth existed in a celestial world and were eternal like their boundless beginning. Yeẓirah explains, "their end is in their beginning and likewise their beginning is in their end ...."

In its most developed form, Jewish cabalism taught that three other worlds, identical except in their nearness to the En Soph, arose from the Sephirothic world: the Briatic world, the habitation of the angel Metatron, the archetypal man; the Yetziratic world, the home of the angelic host; and the Assiatic world, the realm of the spheres, of matter and the residence of the prince of darkness.

Cabala declared that man, an inhabitant of the lowest world, was the microcosmic image of the archetypal man. The Zohar states, "The Heavenly Adam who emanated from the highest primordial obscurity (the En Soph) created the Earthly Adam." Cabala's strong adherence to the macrocosmal-microcosmal analogy is further developed in the Zohar. It compares the letters of God's name, the Tetragrammaton (Yod Hay Waw Hay) to the major parts of the body; the Yod represents the head, the Hay the arms and shoulders, the Waw the breast, and the final Hay, the back and legs (fig. 1). This macrocosm-microcosm analogy and the idea of a dark world of matter, it will be seen, were especially appealing to Fludd.
Cabala validated the alphabetic view of creation by equating the alphabet with physical reality. The seven double letters of the Hebrew alphabet were shown to correspond to the seven days of the week, the seven planets, the seven heavens and the seven gateways of the body. The twelve simple Hebrew letters were found to be the source of the twelve zodiacal signs, the twelve months and the twelve members of man.

Cabala was scientific in that the correspondence between the visible world and the letters used in its formation was believed to be not just symbolic but actual. Cabalists were convinced that the study of numbers, letters and words yielded the underlying realities of the heavens and of the earth. This attitude was adopted by Christian and Hermetic cabalists.

The resemblance between the macrocosm-microcosm analogy of Cabala and ideas started by Plato in the *Timaeus* and the *Phaedrus* gives an indication of why Cabala was acceptable to Hermetic philosophers. Hermeticists as adherents of Neo-platonism would naturally seek out and adopt compatible ideas. The Hermetic belief in the Neo-platonic macrocosm-microcosm doctrine found an ally in Cabala.

There are also similarities between cabalistic concepts and the *Pimander* of the Hermetic corpus. The *Pimander* relates that the divine Nous created the world by an emanation or Demiurge brought forth by his word.
"But the divine Nous . . . existing as Life and Light brought forth by a word another Nous, the Demiurge, who as god over the fire and the breath fashioned seven Governors who encompass with their circles the sensible world . . . ."7

The series of seven governors originating from a word is much like the Sephirothic doctrine of Cabala. The idea of a descending order of creation from the celestial to the sensible world is also paralleled in Cabala. In the Pimander, as in Cabala, the divine emanation is said to be reflected in man. The macrocosmmicrocosm relationship is thus established.

The connection between the divine Nous, light and the creation found in the Pimander is of importance, for the role of light is also stressed in Cabala. The Zohar supposes a view of creation similar to that of Hermes when it says, "The most mysterious struck its void, and caused this point (the first emanation) to shine."8 Cabala further teaches that man's soul is the image of the macrocosm because it is composed of light. The phrase "in our image" refers to light, declares the Zohar.9

In this writer's opinion, it is in the similarity between the doctrines of Cabala, Neo-Platonism and the Hermetic corpus that the reason for the rapid acceptance and wide diffusion of Cabala in the Renaissance and early modern period is to be found. Cabala was a tool with tremendous appeal for men like Dee and Fludd. Because Cabala claimed to originate with Moses, an assertion also made for Neo-Platonism and hermeticism, and relied on the Holy Scriptures for its doctrines, it had the added recommendations of age and divinity.

Up to this point Cabala has been examined from the standpoint of its cosmogony and cosmology. Of equal importance are the methods by which cabalistic truths were wrested from Holy Writ. The tradition which Cabala claimed to represent was one of teaching holy men the techniques necessary for understanding the true and recondite meaning of the scriptures. Both Jewish and Christian cabalists saw the true message of the scriptures as:

"Like a beautiful woman, concealed in the interior of her palace, who when her friend and beloved passes by, opens for a moment a secret window and is seen by him alone, and then withdraws herself immediately and disappears for a long time, so the doctrine only shows herself to the chosen . . ."10

Three techniques were applied to discover the hidden woman: Notaricon, Tsiruf and Gematria. Notaricon is the art of decomposing words found in the scriptures and using their letters as abbreviations for other words or ideas. The notariconic method would interpret the letters of the phrase B'reshith, in the beginning, to mean "in the beginning God saw that Israel would accept the Law."

Tsiruf is the division and/or transposition of the parts or letters of a word into all possible permutations so as to form other words. By applying Tsiruf, B'reshith is found to yield B're, he created, Shith, six. The phrase he created six was used by cabalists to support the doctrine of the Sephiroth.

Gematria is the technique of employing letters as numbers. A gematriatic example is Genesis 38:2 where the words "Lo three men stood by him", are found to have the numerical value of 701. The sum of the names Michael, Gabriel and Raphael is also 701. The conclusion is that they must have been the three men.

Cabalistic methods of exegesis are not limited to Jewish theology. They can, in fact, be used to prove almost anything from the scriptures. Christian scholars quickly recognized this fact and adapted Cabala to Christian theology. Hermeticists did not remain ignorant of Cabala's malleability. They used it to prove their mystical-religious theories of nature.

Before turning to Hermetic Cabala as developed by Dee and Fludd, it would be helpful to look at the Christian Cabala of Johannes Reuchlin, an early popularizer of Cabala who greatly influenced Fludd. Reuchlin is important because he recognized the harmony between Cabala and Neoplatonism, explained Notaricon, Tsiruf and Gematria, and transmitted the cabalistic cosmology in his widely circulated works.
In his first cabalistic treatise *De Verbo Mirofico* (Basel, 1494), Reuchlin identified the Tetragrammaton as the true source of the Pythagorean tetrad. By comparing the tetrad with God's name, Reuchlin demonstrated Greek philosophy's dependence on Cabala. The first letter of the Tetragrammaton, Yod, has the appearance of a point so Reuchlin saw it, in the Pythagorean sense, as the beginning and the end of all things. The second letter, Hay, numerically equal to five, was the sum of the trinity's union with nature, the duad. The numerical value of the third letter, Waw, is six. The number six was the symbol of perfection to the Pythagoreans. The last letter, also a Hay, symbolized the human soul which was between heaven and earth as the number five was in the decade. Reuchlin's belief that Cabala was the source of Greek philosophy opened fruitful paths for its application to the explanation of philosophical and theological doctrines.

John Dee 1527-1608

In addition to philosophical Cabala Reuchlin practiced a Christian oriented cabalistic spiritual exegesis, an example of which was deriving the names Father, Spirit and Son from the letters of the Hebrew verb he created. Reuchlin is valuable in understanding both Dee and Fludd. Dee saw mathematical possibilities in Cabala as did Reuchlin. Fludd appears to have been directly influenced by the cabalistic cosmology imparted by Reuchlin's works. His writings often cite Reuchlin's *De Arte Cabalistica* (Hagenau, 1516). Reuchlin also provides a standard of Christian Cabala against which the goals and usages of Hermetic Cabala can be measured.

II

In his "Mathematical Preface" to Euclid's *Elements*, John Dee cites Boethius that God created all from number. He reasons that if all was derived from number, we can by means of mathematics:

"... behold in the Glasse of creation the Form of Forms, the exemplar Number of all things numerable both visible and invisible."\(^ {12} \)

Dee's view that nature originated from and can be discovered through mathematics is representative of Renaissance Neoplatonism. His views are especially like those of Nicholas of Cusa whom he quotes in the "Mathematical Preface." Cusa in *Of Learned Ignorance* propounded the view that mathematics is a means by which God can be understood.\(^ {13} \) Both Dee and Cusa agreed that mathematics is a useful tool because it allows a comparison of the finite with the infinite.

Dee saw mathematics as an intermediary between the natural and the supernatural. Mathematical things were not as perfect as the ideal world but were also not as gross as the natural world.\(^ {14} \) At its highest level, Dee believed, mathematics leads to a knowledge of the formal or celestial world of Platonism. It was
Platonism's concentration on the ideal rather than on the practical that accounted for its lack of popularity, said Dee.15

Dee translated Euclid's *Elements* as a preparation to lead people from practical mathematics back to the true science of Plato, a science which discovered the nature of the universe.16 It was in an attempt to explain the celestial realm and its order through mathematics that Dee made use of Cabala in the *Monas*. He treated Cabala as an adjunct to mathematics. To him true Cabala was mathematical rather than linguistic. In the *Monas*, he interpreted his monad by means of Notaricon, Tsiruf and Gematria.

Dee believed the hieroglyphic monad to be a geometrical symbol in which the organization and reality of the entire universe was represented and from which the whole of creation could be derived. The role of the monad is analogous to that of the Hebrew alphabet in traditional Cabala. The monad, said Dee, "imbued [the astronomical symbols] with immortal life" and allowed their meaning to be expressed "most eloquently in any tongue and to any nation."17 The monad could express all because the external bodies of the celestial sphere were reduced to "their mystical proportions" in it.

Dee did not consider the monad to be his original discovery. It was, rather, a symbol based on the alchemical sign for mercury sent to him by IEOVA, the Tetragrammaton, to rebuild and restore astronomy. The monad was to be viewed as a new dispensation or restoration of a preexistent art of writing which had become extinct. These points are made clear in the *Monas'* "Preface to the King."

"Mercury may rightly be styled by us the rebuilder and restorer of all astronomy [and] an astronomical messenger [who was sent to us] by our IEOVA so that we might either establish this sacred art of writing as the first founders of a new discipline, or by his counsel renew one that was entirely extinct . . ."18

It seems that Dee equated the monad or its component parts with the origin of alphabets. The monad was, therefore, the ultimate source of alphabetical Cabala. He pointed out that the letters of the Latins, Greeks and Hebrews, like the monad, were derived from points, straight lines and the circumference of circles.19 Divine power was viewed by Dee as the source of the Hebrew alphabet and the symbolism represented by its vowel signs and letters.20

A corollary to the view that alphabets originated in geometrical symbols was the idea that alphabetical Cabala is inferior to mathematical Cabala. Cabala is most productive when applied to deriving knowledge from mathematical symbols. Dee stated that the investigation of the monad, like the investigation of the Hebrew letters, through Notaricon, Tsiruf and Gematria, is a holy art.21

**Dee's purpose was not only to understand the mysteries of visible and invisible things by interpreting the monad with Cabala but also to demonstrate to the Jews, in a missionary sense, that God is benevolent to all, i.e. he has endowed Christians with great wisdom.**

"... then (compelled by truth, if he may understand) he [the Jewish cabalist] will call this art holy, too; and he will own that, without regard to person, the same most benevolent God is not only of the Jews but of all peoples, nations and languages."

It was, then, not without some religious zeal that Dee discussed Cabala with the Jews. The *Monas'* Christian tone is especially obvious in the preface where Dee, like Reuchlin, states that Cabala is not opposed to the Trinity.23 He viewed non-Jewish Cabala much like Reuchlin and believed it to be the true Cabala, a point he hoped to make to the Jews. Dee was even more precise than Reuchlin in his definition of true Cabala. He selected mathematical Cabala as the highest means of knowing truth. Still Dee considered the alphabetic form to be important.

"... no mortal may excuse himself for being ignorant of this our holy language, [the cabalistic interpretation of the monad] ... (which) I have called the real cabala, or of that ... other and vulgar one, which rests on well known letters that can be written by man ... "24
Real or mathematical Cabala "explains the most obtruse arts" and was used in the *Monas* as a key to the universe. The *Monas* applies Cabala first as a geometrical form of Notaricon. Dee describes each part of the monad as a symbol for a cosmic reality (fig. 2). This corresponds to alphabetic Notaricon wherein each letter represents a word or concept.

Theorem One states that all things happen by means of a straight line and a circle. The monad embodies this basic reality for it is made up of lines and circles. Theorem Three says that as a circle is derived from a point and a line, Theorem Two, the circle and point of the monad represent the geocentric universe. Because the sun is the highest perfection of the universe, the circle and the point also represent it.

The use of Notaricon is extended to explain the monad's joining of a half circle to the solar circle. The half circle represents the moon. The meaning is that on an evening and a day, the duration of the creative period in Genesis, the light of philosophers was made. Two final examples of notaraiconic interpretation are the rectilinear cross and the sign of Aries. The cross represents the mystery of the four elements from which the world was made by the action of fire, symbolized by Aries.

The technique of Tsiruf was used by Dee to derive the signs of the planets from the component parts of the monad. As in alphabetical Cabala, Dee permuted the parts of the monad to form new and meaningful symbols. Theorem Twelve states that the signs of the planets are derived from the symbols of the moon, the sun and Aries. The accompanying diagram shows that Saturn can be derived from the rectilinear cross with one half the symbol of Aries attached to the lower right quadrant. The construction of Jupiter is said to be opposite to that of Saturn (fig. 3).

Theorem Thirteen deals with Venus and Mercury in a similar vein. Venus is made by attaching the solar circle to the cross and Mercury is the same as Venus with the lunar half circle added (fig. 4). The majesty of the sun and its relationship to the moon and the zodiacal signs are demonstrated in Theorems Fourteen and Fifteen.

The word Tsiruf appears in Theorem Twenty-three as a precise term to describe the permutations of the numbers which Dee associated with the monad. It is clear, however, that the derivation of the planetary symbols from permutations of the monad is a correct general application of Tsiruf.

John Dee used Gematria or numerical interpretation to a considerable extent in the Monas. Numbers are derived from the monad in Theorems Sixteen to Twenty. Theorems Twenty-three and the concluding Theorem Twenty-four, however, are the sections where the gematric method is most clear and intelligible. The discussion centers on the rectilinear cross of the monad and its relationship to the Pythagorean quaternary.

Using Tsiruf Dee determines that the numbers one, two, three and four have twenty-four possible permutations. By means of a gematric interpretation, Dee links, in Theorem twenty-four, the twenty-four permutations to the hours of the day; the six wings of the four Gospel beasts found in the Apocalypse of John; and the twenty-four elders mentioned in the same Apocalypse. This section is particularly worthy of reproduction as an example of Dee's application of the cabalistic method.

"Thus we shall now at last, in this our twenty-fourth speculation, consummate and terminate the permutations of the quaternary, to the honour and glory of Him who (as John . . . witnesses in the fourth and last part of the fourth chapter of the Apocalypse) sits on the throne and around Whom four animals (each having six wings) speak day and night; ... Whom also twenty-four elders, . . . falling prostrate from twenty-four seats . . ., adore . . ."

The *Monas*' mystical explanation of the universe gains intelligibility when approached from the standpoint of Cabala. John Dee, as did the writers of *Yezirah* and the *Zohar*, explained the universe in symbols which had reality to him. The monad cabalistically interpreted served its function well of embodying all the symbols related to the universe. The lack of Sephiroth and angelology in Dee's
system indicates how "rational" and "mathematical" he sought to make it. He used the cabalistic method but not the cabalistic cosmology.

The primary goal of the Monas seems to have been the symbolic quantification of the universe. The religious aspects of the system should not be overlooked for God was recognized as the source of truth and the origin of all things, the Form of Forms.

Dee's role in developing a mathematical form of Cabala which could be applied to nature seems to have been recognized by contemporaries for his monad appears in Libavius' Commentariorum Alchymiae (Frankfurt, no date) and in Steeb's Coleum Sephiroticum Mainz, 1679). Reuchlin's theological Cabala which proved the superiority of Christianity is in marked contrast to Dee's geometrical Cabala which discovered celestial relationships. Just how mathematical Dee's cabalistic system is can be best appreciated when it is compared to Fludd's alchemical universe.

III

The Monas' description of the universe did not stress the macrocosmal-microcosmal relationship or the material world. Dee's greatest interest seems to have lain in knowing the celestial or formal world. Robert Fludd's emphasis in the Mosaicall Philosophy was quite different. As a physician and alchemist, Fludd was occupied with matter and man. He concerned himself with the celestial realm as it related to its material image. In the Mosaicall Philosophy he sought to elucidate and apply knowledge gained from the Bible of celestial influences to the material world and to the microcosm. It is through alchemy and cabala that the Mosaicall Philosophy attempts to explore the connection between the heavenly and the earthly worlds.

Fludd did not believe that alchemy was the only science that could describe the universe. Three mystical sciences; Cabala, natural magic and alchemy, were capable of illuminating the creation. The universe which these sciences were meant to explore consisted of three worlds: the Intelligible, the Celestial and the Elementary. The Mosaicall Philosophy emphasizes the roles of alchemy and Cabala in describing these worlds. The book develops the relationship between the three mystical sciences, the three worlds of the macrocosm and the three corresponding parts of man cabalistically.

"[Cabala, Natural Magic and Alchemy] . . . are the three mystical sciences, which are by wise men appropriated into the knowledge of the three worlds; I mean, the Intelligible, the Celestial, and Elementary, represented, according unto the Cabalists by these three Letters of the name of Adam. Also the three parts of man, termed the little world, to wit, alteration and corruption, as also the elementary part." 28

Of importance in this passage are the cabalistic equation of the letters of the Hebrew word for man with the tripartate macrocosm and the emphasis placed on the alteration and corruption of the elementary world. The Mosaicall Philosophy and its use of Cabala may be viewed as an elucidation of these themes.

Fludd begins his description of the universe with a cosmogony based on Genesis which resembles doctrines found in the Pimander, in Cabala and in Paracelsus. The universe was created by the "Eternal spirit of wisdom" or the Ruach Elohim, a term found in Yezirah, who "doth operate by his Angelicall Organs of a Contrary fortitude, in the Catholic Element of the lower waters." 29 The contrary actions referred to are those of condensation and rarefaction. It should be noted that Paracelsus gives a similar view of creation by separation and coagulation in his Three Books of Philosophy Written to the Athenians.

The angelical organs of the Ruach were the sun, governed by the 'potent angell' Michael, and its subservient forces the four winds, each also governed by an angel. The sun by "celestial Alchimy, or spagerick vertue of the divine illumination" divided the waters into upper and lower parts. 30 The upper waters, the home of good angels, "were obedient unto bright Divinity, and were converted into a fiery nature" whereas, the lower waters, Satan's habitat, "being fecall, gross, impure, and therefore more rebellious unto light" were converted into an elementary nature subject to change. 31
Fludd demonstrated the sun's role in the rarefaction of creation by pointing to the action of a weather glass. In sunlight the water in the glass expands, but in darkness, the cold north influence of the elementary world, the water contracts. Between the upper waters and the lower waters existed the third part of the universe, the firmament. The firmament was the mediator between the dwelling place of the *Ruach Elohim* and the fecal world.

Above the firmament, all stood in the changeless similitude of God while in the world below the action of contraries led to change. As an example of the existence of opposite actions in the elementary world, Fludd cited the heart's systole and diastole, contraction by the cold nature of matter and dilatation by the act of formal light.12

The trilevel universe which Fludd described is primarily in interpretation of God's division the the waters in Genesis. God's use of an intermediary *Ruach Elohim* suggests both the *Pimander* and Cabala. The *Pimander*'s influence on Fludd is seen in his unpublished work *A Philosophical Key* (1618).

The *Key's* discussion of the creation turns on a Demogorgon which worked by means of two intermediaries, chaos and eternity. The elementary world was described as the *Litigum*, abortion, of chaos. It was the realm of evil and was fecal in nature. The *Key* like the *Pimander* also stressed the role of light in the creative process. The *Mosaicall Philosophy* continued the *Key's* fecal analogy and view of light but substituted the *Ruach Elohim* and angelology of Cabala for the Demogorgon and its agents.

A most significant aspect of Fludd's cosmogony is its similarity to the alchemical process of distillation. The Divine emanation is viewed as an alchemist who used beams of light to separate the primordial waters into their constituent parts. The finest material rose, leaving behind the fecal debris of the elementary world. In distillation Fludd believed that he had observed the process of creation described by Moses in Genesis. The weather glass was an experiment which supplied convincing proof of the role of light in rarefaction. This explanation of creation based on experiment was the true mosaical philosophy.

It is difficult to determine how much of Fludd's general scheme was taken from Cabala. Creation by light's emanation, the macrocosm-microcosm doctrine and angelology are all found in Neo-platonism and the Hermetic corpus as well as in Cabala. Fludd's extreme reliance on alchemical processes indicates that he probably used Cabala as a support for ideas developed from non-cabalistic sources. Cabala's similarity to his beliefs gave him a convenient proof for his views. In the matter of particulars, Cabala, perhaps, added more to his thought. This is especially true of the macrocosm-microcosm analogy. Fludd displays good
cabalistic form when he states that the "aevaill or angelical effect, is the image of the eternal Idea, and the temporal world, is the similitude of the aeviall." 

It is true that in any macrocosmal-microcosmal system the two worlds are identical, but the interspersion of a series of three worlds is reminiscent of the cabalistic cosmos. The universe developed in the Mosaicall Philosophy is more like the three sub-Sephirothic worlds of Cabala than the seven level cosmos of the Pimander. The Mosaicall Philosophy's use of light corresponds to Cabala. Fludd's statement that each "world was made by the sending forth of God's bright Emanation" is paralleled in the Zohar. The three worlds of the Mosaicall Philosophy like the Zohar's differed only in that each had a "lesse proportion of light than other."

Fludd's terminology and angelology in the Mosaicall Philosophy seem to be drawn from Cabala. As the cabalistic Sephiroth correspond to the divine attributes so does each angel in Fludd's cosmos perform a necessary function to God's nature and his creation. The attribute Elohim, for example, sends down the power of cold effects to Saturn while the attribute Jehovah Sabaoth pours forth the beams of concupiscibility.

Even in this, his most cabalistic of moods, Fludd leans heavily on ocular demonstration. The means by which angels influence the world, he compares to the sympathetic action of a lodestone. Angels do not work directly but rather through intermediaries in the firmament. Angelical beams proceed to the stars. Each animal or vegetable has a particular star "that poureth out upon him his proper influence." The topic of celestial influences on the elementary world as demonstrated by lodestones is the subject of the last portion of the Mosaicall Philosophy.

The doctrines of Cabala and alchemy are thoroughly mixed in the Mosaicall Philosophy. Fludd, perhaps, did not distinguish the two because their cosmological teachings were so similar. Both systems were, after all, sciences which should yield the same results in studying the universe. The scriptural interpretations of Cabala lent divine authority to Fludd's alchemical views. His free combination and equation of Cabala with alchemy resulted in a system which was a homogenous mixture of the two approaches.

The Mosaicall Philosophy's discussion of the doctrine of anima mundi or world soul illustrates this homogeneity. The pagan concept of anima mundi, said Fludd, was the same as the Catholic soul of Christianity and the angel "mitattron" of Jewish Cabala. Anima mundi, Catholic soul and Metatron were simply three terms for the same truth. Seen in this syncretistic light the cabalistic elements in Fludd's philosophy make a good deal of sense.

In reading the Mosaicall Philosophy, a question arises, how much first hand knowledge of Hebrew and Cabala did Fludd possess. This question grows out of serious errors made by him in his cabalistic interpretations of Hebrew phrases. One near comical error which he committed was in referring to Zohar as a rabbi. Another obvious misuse is found in part two of the Mosaicall Philosophy where Fludd tries to prove his three level cosmos by Notaricon. He asserts that the phrase "the heavens", mem yod mem shin hay means the heavens or the firmament, are between fire, the upper waters and the lower waters. According to Fludd, the spelling reads mem yod mem shin aleph=a shamaum. The Aleph and Shin, signify esch, fire and mayim, mem yod mem, represents water.

Fludd is correct, esch is fire and mayim water. Cabalistically they could mean that the heavens are between fire and water. Unfortunately the interpretation is based on a mispelling, "The heavens" is spelled with a Hay, and not an Aleph. Such an error invalidates his conclusion and casts doubt on his knowledge of Hebrew.

This writer has been able to find no usage in Jewish Cabala where "the heavens" is interpreted using an Aleph instead of a Hay. If a check of the cabalistic sources cited in the Mosaicall Philosophy indicates
anything about Fludd's knowledge of Cabala, it was derived in large part from Johannes Reuchlin's *De Arte Cabbalistica*.\(^{43}\) Reuchlin, in fact, is the only cabalist mentioned in the book.

In light of Fludd's linguistic defects, it is strange that he, like Dee and Reuchlin, claimed his Cabala to be the true one. After discussing how the world was created by twenty-two "spiritual", letters, he calls the Jews to repentance by saying that Hebrew is "much spoken by the learned Rabbis of our age, but little known or understood by them."\(^{44}\) A similar indictment could be brought against Fludd. One should note that a critique of Dee's knowledge of Hebrew is more difficult to find than one of Fludd. Nowhere in the *Monas* does he betray his cabalistic sources. He actually used Hebrew but once and only then in an unintelligible phrase.\(^{35}\)

In defense of Fludd, it would appear that his purpose in the *Mosaicall Philosophy* was not to show a mastery of Hebrew or of Cabala but rather to integrate a system dating from Moses into his alchemical view of the universe based on the Bible. If Moses received both Genesis and Cabala from God, should not Cabala be used to understand Genesis. Fludd's major tool for discovering the mosaical philosophy was alchemy and not Cabala, however. The *Mosaicall Philosophy*'s views were conditioned primarily by the physical theories of alchemy and its ocular proofs. To these proofs were fit compatible doctrines of Cabala. In its own way the *Mosaicall Philosophy* was as successful a mystical scientific work as Dee's *Monas Hieroglyphica*. Its physical explanation of the universe took into account all the factors which Fludd considered necessary for scientific validation: Holy Writ, alchemical knowledge, and the cabalistic tradition.

The systems which Dee and Fludd developed indicate two uses to which Cabala could be put by Hermetic scientists. The intensely mathematical approach of Dee found in Cabala a tool to explore cosmical relationships. Fludd on the other hand saw the cabalistic cosmology as a proof for his alchemical view of nature. Within Cabala's doctrines and methodology were the seeds for both interpretations.

It was natural for Dee and Fludd to use a system of the supposed antiquity and divinity of Cabala. Cabala's teachings, especially those concerning the creation and the macrocosm-microcosm, were welcome because of their harmony with the Neo-platonic and Hermetic doctrines upon which mystical science was based. The cabalistic approach was deemed scientific by both Dee and Fludd. They believed it, like mathematics and alchemy, revealed the underlying processes and realities of nature.

The difference between Hermetic and Christian cabalists lies in the Hermetic attempts to integrate Cabala into an explanation of nature. Reuchlin and his genre sought to prove and illuminate Christian theology with Cabala, not to found a scientific world system. Both Dee and Fludd stepped into the theological arena in declaring that theirs was the true Cabala and that the Jews would do well to heed their teachings, but this proselytizing of the Jews was a secondary consideration. Understanding two applications of Cabala to Hermetic science only begins to shed light on the broader issue of Cabala's role in Hermetic thought. For the historian of science, a knowledge of Hermetic Cabala can increase his understanding of the goals, the doctrines and the methods of Hermetic scientists.

**FOOTNOTES**

*Some of the material on John Dee is contained in Michael T. Walton "John Dee's *Monas Hieroglyphica*: Geometrical Cabala" *Ambix*, vol. 23, pt. 2, July 1976, pp. 116-123.


2. That Fludd was steeped in the mathematical tradition is seen in his *Utrinsque Cosmi* (Oppenheim, 1617). In that book on page 164, he describes a tri-level cosmos based on Pythagorean and Platonic views. Much of the book is based on a mathematical description of the world. In his use of Cabala, however, Fludd did
not select out its mathematical aspects. He adopted, rather, Cabala's way of describing the physical order of the universe. The distinction between Dee as a mathematician and Fludd as an alchemist is, then, somewhat limited to their Cabala.

3. Cabalistic terms like Ruach Elohim were much used by Hermeticists. Henricus Khunrath in his Magnesia Catholica Philosophorum (Mageleburg, 1599) refers to the Ruach Chochmah-El, Spirit of the wise God.


6. Zohar ii, 42 a, Ibid.


15. Ibid., P. 1.


"Ibid., p. 122.
"Ibid., p. 127.

20. Ibid., p. 127.

21. Ibid., p. 133.

22. Ibid., p.133.

23. Ibid., p. 127.

24. Ibid., p. 135.

25. Ibid., p. 209.


27. J. B. Craven in Doctor Robert Fludd points out that in section one of De practernaturi utriusque mundi historia in sectiones tres divisa (Frankfurt, 1621) Fludd discusses Cabala. The ideas Fludd set forth there are very much like Zoharic doctrines. He compared the Tetragrammaton to the parts of the body and used
the Zoharic names for the Sephiroth. The Yeziratic doctrine of a creation from earth (Aleph), fire (Shin) and water (Mem) was also developed. Cabala is mentioned in other works by Fludd but only the system of the Mosaicall Philosophy will be discussed here.

29. Ibid., p. 59.
30. Ibid., p. 193.
31. Ibid., p. 192.
32. Ibid., pp. 193-94.
33. Ibid., p. 197.
34. Ibid., p. 198.
35. Ibid., p. 172.
36. Ibid., pp. 193 and 196.
37. Ibid., p. 196.
38. Ibid., p. 196.
39. Ibid., p. 145.
40. Ibid., p. 155.
41. Ibid., p. 155.
42. An identical cabalistic interpretation of the phrase "the heavens" is found on page 4 of Georg von Welling's Opus Mago-Cabbalisticum et Theosophicum (Homburg vor der Hohe, 1735). Welling may have drawn it from Fludd or some other cabalistic work unknown to this author. The fact remains that the interpretation is a misuse of Hebrew.
43. Two of Fludd's many references to Reuchlin are in Ibid., pp. 61 and 137.
44. Ibid., p. 161.