

THE CONCRETE SIGNIFICANCE OF NUMBER WITH SPECIAL REFERENCE TO THE BOOK OF CHANGES

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I intend in this paper to draw attention to the universality of the 'objective' understanding of number, drawing on three main sources; the Babylonian, Graeco-Egyptian, and ancient Chinese. The latter tradition has only recently begun to receive serious study as a result of the Wilhelm-Baynes translation of the I Ching or Book of Changes. As yet, there has been no appreciation of the possibility that this book may have a significance beyond its classical Chinese use as a compendium of oracular sayings for use in statecraft and individual fortune telling. This aspect of it has been fully explored by Richard and Helmut Wilhelm and C. G. Jung.¹ The possibility that the numbers assigned to the sixty-four hexagrams may have a qualitative significance in their own right and thereby provide a further key to interpretation, has not so far been recognised by I Ching scholars. This is no doubt largely due to the fact that the Chinese themselves have not made use of this aspect of the book, and that alternative systems exist, such as that of Tsa Kua in which the sequence begins with Hexagram 27, and that of the so called 'Former Heaven' in which the sequence begins with Hexagram 47. A detailed study of the inter-relationship of these three systems is beyond the scope of this paper, but, taken into account while interpreting individual hexagrams, they add enormously to the dynamics of the situation and overcome any tendency to rigidity which a single-number sequence might lead to. The fact remains that the traditional and earliest sequence begins with the assigning of the numbers 'one' and 'two' to the primary affirmation of the Male or 'Creative' principle—Ch'ien, and its complement the Female or 'Receptive' principle—K'un. Readers of 'Systematics' will require no further argument to see the appropriateness of this arrangement; particularly when within this primary polarity are contained the further Dyads 'Father—Mother', 'Content—Form', 'Height—Depth', 'One—Many', 'Head—Belly', 'Heaven—Earth', and many others. It seemed a natural and obvious development to try to discover a similar qualitative role for the numbers in the remaining sixty two hexagrams. As our understanding of the inner qualitiveness of number does not in general extend beyond three, the only way to remain on firm ground was to compare individual hexagrams with the meanings associated with the same number in other traditions. I hope to give sufficient examples in this paper to establish my thesis.

111,111 111,110 111,101 etc. Hsiao Chu 111,000

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10	58	38	54	68	60	41	19

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101,000

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13	49	30	55	37	63	22	36

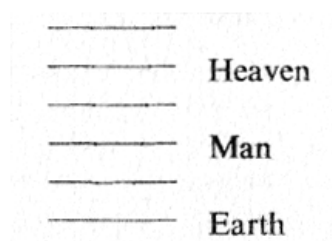
100,000

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25	17	21	31	42	3	27	24

The I Ching and Modern Cybernetics

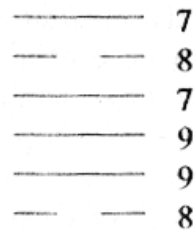
Before proceeding to detailed examples, I want to clarify the conception of number which I propose to discuss. Although of extreme antiquity, this understanding of number has been bypassed in the enormous strides made by modern science with mathematics as its handmaiden. The last Western philosopher to take the metaphysics of numbers seriously was Leibniz, and it has been established that his so-called 'Binary system' was in fact identical with the system in the I Ching in which the hexagrams are arranged in Dyads in a circular diagram known as the Fu-Hsi.

This diagram was the work of the second of the great masters of Sung Confucianism, Shao Yung (A.D. 1011 - A.D. 1077). "Shao Yung's mathematical exactitude led him to work out a different I Ching table, in which he arranges the hexagrams in a natural system."¹² He starts with the two primary lines, the light and the dark : *a* (see diagram), then adds to each again a light and dark line, thus obtaining four two- line complexes : *b* (see diagram fig. 1). Above each of these a light line and again, alternately, a dark line is added, so that the eight trigrams stand in the arrangement: *c* (see diagram). When the hexagrams are arranged in this order the Binary system stands revealed where 0 = a dark line and 1 = a light line. This Dyadic arithmetic uses only these two numbers in the sequence 1, 10, 11, 100. 101. 110, 111, 1,000, etc. Starting at the top line—a hexagram represents a simple multiplication by 10, where line 6=1, line 5 = 10, line 4 = 10², line 3 = 10³, line 2 = 10⁴, line 1 = 10⁵. This seems to verify mathematically the traditional interpretation of the lines of the hexagrams as an ascending order of fineness in the scale of Being, representing a movement from multiplicity at the bottom to unity at the top. According to this tradition, each hexagram can be divided not only into the two trigrams which give it its structure, but into three 'dyads':



It is of the greatest interest that Man, representing the two qualities of "Love" and "Rectitude" is regarded as being the mediating or "reconciling" power between Heaven and Earth. It will be noticed that the bottom trigram of each group of eight remains the same forming a kind of "ground bass" while the top trigram changes in the order shown in line *c*. There is no doubt that a competent musician could reduce this mathematical order to music, a fascinating possibility since it would provide an objective musical equivalent to the Leibniz Binary System. The Binary numbers follow each change of the "ground bass" in the order 0, 1000; 10,000; 11,000; 100,000; 101,000; 110,000; 111,000. The number beneath each hexagram is the sequence as it appears in the I Ching. 24 and 44 appearing under line *a* represent the winter and summer solstices and the complements or "opposites" proceed in an order of increasing separation or "tension" as in 27, 28; 3, 50; etc., until the primary opposition of 1 and 2 is reached at the extremity of the series. It is clear that Shao Yung's arrangement is only a variation of the Fu Hsi or Primal Sequence known as the "Earlier Heaven" which has an antiquity of 2,000 BC or more as Leibniz himself supposed. In this arrangement, the left hand half of the diagram would appear reversed so that Hexagram 1 would appear next to Hexagram 44. It is obvious that the Binary correspondence would still hold, only

111111 would appear next to 111110. So that Shao Yung, whose date is AD 1011, cannot really be said to have “invented” the correspondence. It is clear that the Binary arrangement is full of untapped possibilities. For instance, instead of the values 1 and 0 being given to the Yang and Yin lines, the traditional values of 9 and 6 for moving lines could be used, while 7 and 8 could be used for lines at rest. These are known as the “Old” and “Young” Yang and Yin respectively. Thus any hexagram “drawn” in the divination procedure could be converted into numbers as follows. In the example used by Jung in the introduction to the I Ching, Hexagram 50—Ting, is “drawn”, with a “nine” or Yang line that moves in the 2nd and 3rd place. Using the binary system this would be expressed thus:



787998 becoming Hexagram 35—Chin, expressed by 787668. In the Leibnizean arithmetic, this hexagram, 50, would be 101110.

Leibniz first discovered the I Ching through his contact with Father Bouvet, a Jesuit missionary particularly interested in the Book of Changes, with whom Leibniz corresponded from 1697-1702. “The discovery that the I Ching hexagrams could be interpreted as another way of writing numbers according to the Binary system—seems to have been in the first place the idea of Bouvet.”¹³ “Not unnaturally. Leibniz was amazed that he should find his Binary notation employed for the series of numerals 63-0 in the hexagrams of the Book of Changes, which in his day were universally believed to go back to at least the second millenium.”¹⁴ “The phenomenon,” writes J. Needham, “that two speculative minds, six and a half centuries apart in time, living at opposite ends of the world and starting from altogether different foundations, should have arrived at the same scheme of order is astonishing. One cannot help feeling that the coincidence was not an accidental one, and that somehow both systems must rest upon the same natural basis.”⁵ This might appear to be of only academic or historical interest were it not for the fact that Leibniz has become the father of modern Cybernetics. “The Binary or Dyadic arithmetic has been found to be the most suitable system for the great computing machines of the present day, which in turn have been regarded as almost ideal models of the animal central nervous system.”¹⁶ “We see how the Binary arithmetic, stumbled upon by Shao Yung in his arrangement of the I Ching hexagrams, and brought to consciousness by Leibniz, might be said in a very real sense to have been built into the mammalian nervous system long before it was found convenient for the great computing machines of modern man.”¹⁷

If the mathematical structure of the I Ching on a purely quantitative level seems to be built into the natural order in this way;—are we not justified in examining the possibility that the ‘qualitative’ order may be equally objective? Dr. Needham dismisses this suggestion. “If the I Ching diviners were unconscious of the Binary arithmetic and made no use of it, the discovery of Leibniz and Bouvet has only the significance that the system of abstract order embodied in Shao Yung’s version of the I Ching happened to be the same as the system of abstract order involved in the Binary arithmetic. The belief of Leibniz and Bouvet that God had inspired Fu-Hsi to put it there need not detain us.”

Dr. Needham, probably the greatest western authority on Chinese culture, argues that the I Ching system is a product of the Chinese bureaucratic mind. "The elaborate symbolic system of the Book of Changes was almost from the start a mischievous handicap. It tempted those who were interested in Nature to rest in explanations which were no explanations at all. The Book of Changes was a system for pigeonholing novelty and then doing nothing more about it. Its universal system of symbolism constituted a stupendous filing system."⁹ "The Han scholars would have been wiser if they had tied a millstone about the neck of the I Ching and cast it into the sea."¹⁰

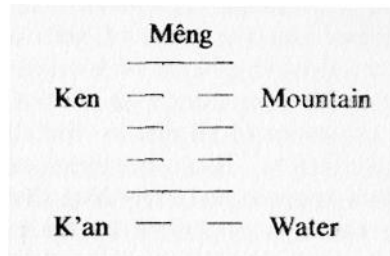
I have referred to Dr. Needham's work at some length because his arguments against the I Ching are likely to be used in a similar way against the attempt of 'Systematics' to provide an objective scheme of categories by means of which our experience can be integrated and understood. It can be expected that the strict empiricism of modern science will put up a stiff resistance to a return to a Pythagorean conception of the universe. Nevertheless, we are concerned with nothing less than this. "The obsession of the Orphic mystics, from whom the Pythagoreans derived their main doctrines, with sacred numbers is remarked upon by Iamblichus in his *Life of Pythagoras*; 'Orpheus said that the eternal essence of number is the most providential principle of the universe, of heaven, of earth, and of the nature intermediate to these; and, more, that it is the basis of the permanency of divine natures, gods and demons.' The Pythagoreans had a proverb 'all things are assimilated to number', and Pythagoras is quoted by Iamblichus as having laid down in his *Sacred Discourse* that 'number is the ruler of forms and ideas, and the cause of gods and demons'. The numbers 8 and 9 were favourite objects of Pythagorean adoration."¹¹

Richard Wilhelm in his commentary on the I Ching, writes: "its principles contain the categories of all that is—literally the moulds and the scope of all transformation. These categories are in the mind of man: everything, all that happens and everything that undergoes transformation, must obey the laws prescribed by the mind of man. Not until these categories become operative do things become things. These categories are laid down in the Book of Changes; hence it enables us to penetrate and understand the movements of light and dark, life and death, of gods and demons."¹²

I hope I have now made clear that we have to do with what J. G. Bennett has called the concrete significance of number. "Although we may be convinced that such a property exists, we are also forced to admit that it eludes our attempts at classification. We are not, however, on this account entitled to dismiss concrete number as illusory, and still less to regard it as unimportant. If we are ever to free ourselves from the limitations of logical thinking, we shall have to discover a new significance in number; for number and logic, as we know them today are inseparable." ¹³ It is precisely because the Chinese sages have opened up the way that we are able to embark on this study. "Looking upward, we contemplate (with the help of the I Ching) the signs in the heavens; looking down, we examine the lines of the earth. Thus we come to know the circumstances of the dark and the light. Going back to the beginning of things and pursuing them to the end, we come to know the lessons of birth and death. The union of seed and power produces all things; the escape of the soul brings about change. Through this we come to know the conditions of outgoing and returning spirits."¹⁴ C. G. Jung has provided a modern statement of the way these ideas can be understood and made accessible to the contemporary mind. "The role that numbers play in mythology and in the unconscious gives food for thought. They are an aspect of the physically real as well as of the psychically imaginary. They do not only count and measure, and are not merely quantitative: they also make qualitative statements and are therefore a mysterious something

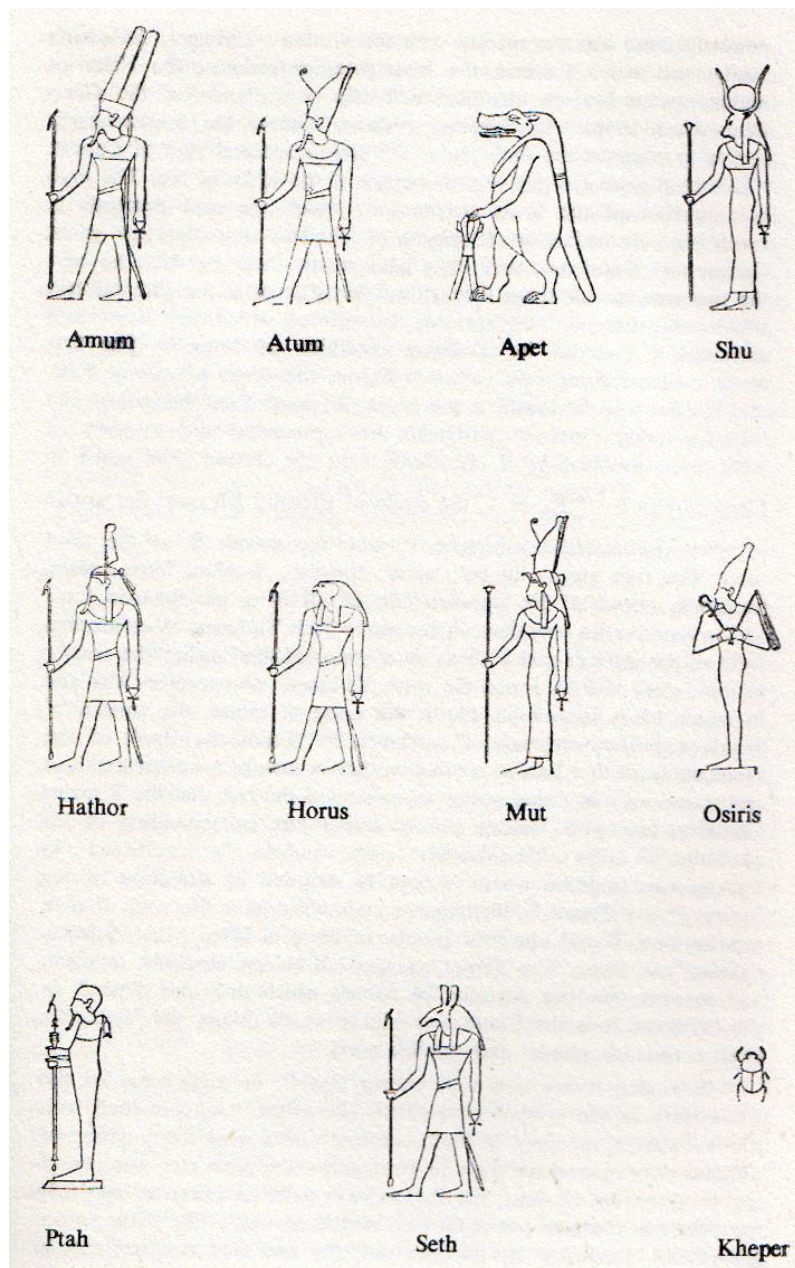
midway between myth and reality, partly discovered and partly invented. Number is the great mediator whose reality is valid in both worlds, as an archetype in its very essence.”¹⁵

I will now proceed to a discussion of the way this mediating role of number operates in the I Ching, and will undertake a comparison with the little we know of Babylonian and Egyptian traditions on this subject. I cannot do better than begin with a study of the Tetrad as it appears in the imagery of the Fourth Hexagram Meng.



This hexagram has the double meaning of an ignorant or inexperienced youth standing before an abyss which opens at his feet; and of a fountain or spring welling up at the base of a mountain. It is not surprising that the I Ching should, in this situation, represent the youth as someone who is embarking on a study of the abysmal depths of number symbolism. Nevertheless the advice is not to give up in the face of dangers, but with resolution and thoroughness flow over the difficulties like a mountain torrent. At the outset we are faced with the difficulty that the ‘pedagogic’ theme of the hexagram is not at first sight relevant to a comparative study of the Tetrad in other traditions. In order to find a starting point, we have to ignore the text and study the imagery of the trigrams. It needs but a little imagination to see in the symbol of the inexperienced or ignorant youth—represented here by the mountain,—an image of the human soul itself standing before an abyss. The trigram K’an—the abysmal, symbolised by water, is here an image of the body as the associations of eating and drinking, heart and blood amply testify. The soul stands in fear and trembling before the ‘gate’ of incarnation. The mountain, Ken—keeping still, represents Eternity, and K’an—water, symbolises Time; the archetypal situation described therefore symbolises the passage of the soul from Eternity into Time. In a more cosmic aspect, the hexagram shows the first appearance of substance and the generation of matter. In an earlier Chinese edition of the I Ching, the radical Meng is translated as the symbol of ‘covering’; and, in fact, it means the body as the ‘cover’ or ‘envelope’ of the indwelling spirit. In Egyptian tradition, we find precisely these ideas connected with the symbol of Kheper, the scarab beetle, and Apet Tau-eris, the hippopotamus goddess, the Neter of numbers who became identified with the constellation of the Great Bear—Ursa Major. In Egyptian zodiacs, Kheper the Scarabaeus is shown in place of the crab under the fourth zodiacal sign of Cancer. “This is a symbol of the fourth period of the cycle of life. The crab is a symbol of the lower nature into which the soul descends in involution. According to Porphyry, theologians admitted two gates, Cancer and Capricorn, and Plato also meant these by what he calls the two mouths. Of these they affirm that Cancer is the gate through which souls descend, but Capricorn that through which they ascend and exchange a material for a divine condition of being.”¹⁶ The first seven zodiacal signs were called in Egypt, the seven powers of Fate, and Kheper was the fourth in the series. He symbolised ‘becoming’ and ‘transformation’, and in particular he represented the category of subsistence ascribed by J. G. Bennett to the Tetrad. His name in hieroglyphics is , the circle of Eternity Kh over the square of time and with the mouth R as the third term. The root means ‘to be’,

'exist', 'subsist', 'fashion, form, create, transform oneself'.¹⁷ He appears first of all in a pre-dynastic form as the four beetles contained in the name Ptah Ta-tanen. A primordial form of the artificer god Ptah as the Creator of the Earth; "the creator in the aspect of Ptah forms the earth Ta-tanen, who receives him and in which he is incarnated. He is the neter of mines, the smelter of metals and the workman of workmen."¹⁸ "From the Book of the Dead we learn that he was a great worker in metals, a master architect and framer of everything in the universe; and the fact that the Romans identified him with Vulcan greatly assists our understanding of his attributes."¹⁹ The identification with Vulcan is confirmed in Pythagorean tradition where Vulcan is regarded as partaking of the nature of the Tetrads.²⁰ "Pythagoras maintained that the soul of man consists of a Tetrads, the four powers of the soul being Mind, Science, Opinion and Sense. The Tetrads connects all beings, elements, numbers and seasons; nor can anything be named which does not depend on the tetraktys. It is the Cause and Maker of all things, the intelligible God, author of celestial and sensible good."²¹



In modern times it is well known that C. G. Jung regarded the Quaternary as the symbol of the Self. He writes, "As compared with the Trinitarian thinking of Plato, ancient Greek philosophy favoured thinking of a quaternary type. In Pythagoras, the great role was played not by three, but by four; the Pythagorean oath for instance, says that the tetraktys contains the roots of "eternal nature". The Pythagorean school was dominated by the idea that the soul was a square, not a triangle. The origin of these ideas lies far back in the dark pre-history of Greek thought. The quaternity is an archetype of almost universal occurrence. It forms the logical basis for any whole judgement. If one wishes to pass such a judgement, it must have this fourfold aspect. For instance, if you want to describe the horizon as a whole, you name the four quarters of heaven. Three is not a natural coefficient of order but an artificial one. There are always four elements, four prime qualities, four castes, four ways of spiritual development, etc. So too, there are four aspects of psychological orientation beyond which nothing fundamental remains to be said. In order to orient ourselves we must have a function which ascertains that something is there (sensation); a second function which establishes what it is (thinking); a third function which states whether it suits us or not (feeling); and a fourth function which indicates where it came from and where it is going (intuition). When this has been done there is nothing more to say. Schopenhauer proves that the 'Principle of Sufficient Reason' has a fourfold root. This is so because the fourfold aspect is the minimum requirement for a complete judgement. The ideal of completeness is the circle or sphere, but its natural minimal diversion is a quaternity."

The Egyptians also regarded the Tetrad as the origin of the soul. The Egyptian word for 'four', Aft or Apt, is the name for the Great Mother, the hippopotamus goddess Apet Ta-urt. "The Egyptians have preserved for us a portrait of Apet (Kheb or Ta-urt) in a fourfold figure, as the bringer-forth of the four fundamental elements, earth, water, air and heat. As representative of the earth she is a hippopotamus, as water she is the crocodile, as the representative of breathing force she is a lioness, the human mother being imaged by the pendant breasts and procreant womb. Apet was also the mother of sparks, or of souls as sparks of starry fire. She was the kindler of life from the spark that was represented by the star. Hence the soul and star are synonymous under the name of Khabsu."²³ Apet seems to have played the feminine or passive role in relation to the Creator Gods Ptah and Kheper. Just as the Egyptian root Khep means 'to seize', 'grasp', 'bury', so that Kheper became 'the seizer of the seed', Apet in her name of Shesp means 'to receive seed', 'to conceive'. Her enormous belly is the cosmic matrix containing everything which is in gestation. She is blind and unseeing (Shep), ignorant of the nature of all that she holds in her womb. She became the Egyptian goddess of number and measure because the first Egyptian measure was the palm of the hand, measured across the four fingers, a span of 0.075 metres.²⁴

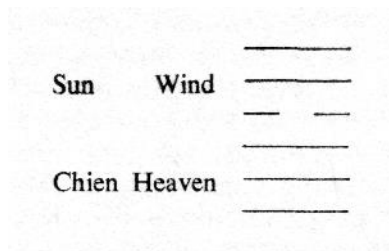
The Tetrad and the Great Bear

If we return now to our Fourth Hexagram Meng we can understand how this radical became a name for the Chinese goddess of children. Furthermore, in the great circular diagram of Shao Yung alluded to in the discussion of the binary system, Meng stands in the north. I will show in my discussion of Hexagram 49 later on in this paper, the connection of this hexagram with Ursa Minor—the Little Bear. In the Shao Yung arrangement Hexagram 49 is the opposite or complement of No. 4 — Meng, arrived at by turning all the lines into their opposites. It is therefore of great interest that we find Apet as the 'Tetrad', identified with the Great Bear. Discussing the Tetra-grammaton, Massey says, "In the Gnostic account of the beginning attributed by Irenaeus to Marcus, it is said that the deity uttered the first word of four letters. This word was arke (arche), the Greek form of the famous

Tetragrammaton, which, with the Hebrews, was the Name of four letters. In the later accounts of creation, the deity is postulated as God the Creator, the cause of phenomena; in the earliest, the phenomena when personified supplied the divinity. 'In Arke' was in the beginning and synonymous with 'in the circle' as a type of time. Ark—Egyptian— means 'to encircle'; Arkai is 'to appoint a limit', 'fix a decree'. The first circle or arc observed in Heaven as a measure of time, was that of (Arktos), the Bear, whose revolution made the first (Arctic) circle round the pole of the north. The four letters typify the four comers of all beginning. Apet is the name of the Goddess of the Great Bear and of the four comers. Here the secret of the mystery is that JHVH was represented by the beast that went on all fours, whose name was written with four letters, and who was a figure of four. Apet the genetrix is the abode of the four comers. The four comers at first represented by the four legs of Apet were afterwards depicted by a goddess bending over the earth and resting on her hands and feet, or on all fours. Also the hippopotamus has four toes to each foot."25 "Pythagoras in his Golden Sayings calls the two bears the hands of Rhea, therefore Rhea is Ta-urt of the Bear." This last confirms the solution offered by Robert Graves to the Taliesin riddle. "I was in the firmament on the galaxy when Rome was built, and whirled round motionless between three elements." "The sacred oak-king was killed at mid-summer and translated to the Corona Borealis (Crown of the North Wind) presided over by the White Goddess, which was just then dipping over the Northern horizon. But from the song ascribed by Apollonius Rhodius to Orpheus, we know that the Queen of the Circling Universe, Eurynome, alias Cardea, was identified with Rhea of Crete; thus Rhea lived at the axle of the mill, whirling round without motion, as well as on the Galaxy." "Another name for the Goddess of the Mill was Artemis Calliste, to whom the she-bear was sacred in Arcadia; and in Athens at the festival of Artemis Brauronia, a girl of ten years old and a girl of five, dressed in saffron yellow robes, played the part of sacred bears. The Great She-Bear and Little She-Bear are still the names of the two constellations that turn the mill around."26

We can begin to see how the "dramatis personae" of mythology may be reduced to order and made comprehensible by tracing them to their number archetypes. To sum up this introduction to the concrete significance of the Tetrad by means of the hexagram Meng, let us recall its primary meaning of "a cover" or "envelope". "This description of creation represents the image of Kheper (the Creator typified by the beetle) gathering the matter up to *cover* and *conceal* the seed, or as the beetle may be seen on the monuments taking the liquid matter with his hands to turn (khep) it into solid."27 According to Gaskell's Dictionary, four is significant of system and order, hence the image in our hexagram—"thus the superior man fosters his character by thoroughness in all that he does". "Plutarch states that it is by reason of the number four that every body has its origin. This is however not to be understood as relating to the forms of bodies which is the function of the power of eight, but cosmically, i.e. of the preparation of the stuff from which bodies are fashioned or woven. Hence four represents the preparation of bodily *covering*, the evolving of matter from root substance."28 I hope to have given substance to my thesis by introducing the Tetrad as a starting point, and will now continue with a discussion of the Ennead.

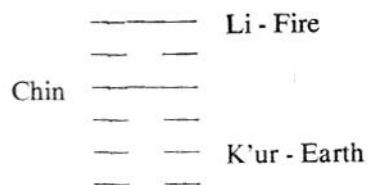
I will begin with a study of the Ninth Hexagram Hsiao Ch'u—The Taming Power of the Small. In penetrating to the inner quality of "nineness" in relation to this hexagram, it is necessary to concentrate on the imagery of the hexagram as made up of the two trigrams



and to ignore the text attached to the individual lines and its divinatory significance, which already has the characteristic Chinese stamp on it. In the symbolism of the trigams, “Wind” has the quality of gentle penetration; it is regarded as the power behind all organic growth and the means by which all beings can take on body and form.²⁹ In the hexagram, the wind is represented as restraining or impeding the clouds, the rising breath of Ch’ien—the Creative, causing it to grow dense. The Chinese radical ‘Hsiao’ in addition to meaning “small”, contains the meaning of ‘vapour’, ‘ether’, ‘clouds’ and the ceaseless flux of ‘Yin and Yang’ as exemplified in the inspiration and expiration of breath. It also contains the idea of a ‘pattern’, particularly in relation to physical form: ‘to imitate’, ‘resemble’ as in ‘the likeness of flesh and blood’. The radical Ch’u has a generative significance as in ‘to issue forth’, ‘proceed from’, ‘beget’. The process of the hexagram has therefore to do with the generation of physical form by means of the combined action of the Sun, the Wind, and Ch’ien—Heaven. We can now follow the derivation of ‘The Image’ in the text—“Thus the superior man refines the outward aspect of his nature.” Are these ideas connected with the ennead in other traditions? “The Ennead was regarded by Pythagoreans as flowing round the other numbers within the decad like the ocean. This strange and mystical allusion would seem to refer to the fact that the stage of creation represented by the number nine is that in which all forms were made ready *to be built up into bodies, and included in themselves all shapes*, and hence all numbers, geometrically considered. Thus the stage comprehended all numbers within itself and so it was correctly described as ‘flowing round them’.”³⁰ “Since this number represents, as a cosmic process, a distinct change of condition, a turning from *the formless to a bodily creation*, it is well named Terpsichore. In this sense, nine was called Terpsichore, the Dancing Muse, because of its turning and causing the retrogression and convergency of productive principles to circulate like a dance.”³¹

If we turn from Pythagoras to the Hebrew Cabala, we find nine as the number of Adam ‘ADM’. Apart from the numerical value of these letters in ‘Gematria’, the Jews appear to have derived this ascription from the nine orifices of the body and the nine months of gestation. More interesting is the tradition concerning the higher and the lower Adam. “The Great Androgene, the Adam Illa-ah, or Adam Qadmon, which includes in itself all the ideas, and all the content of the prototype of all existence.”³² “Man, who at first stretched from end to end of the world, was afterwards diminished by the hand of God.” (Ps. CXXXIX. 5.) (N.B. The Pythagoreans called nine ‘the horizon’). “It is also said that the first Adam extended from the earth to the firmament.”³³ If, at this juncture, we cross over to the Egyptian tradition, we find remarkable correspondences. The theology of Heliopolis dealt with the generation by the high god Atum of the Geminian twins Shu and Tefnut. Shu was god of the air, particularly dry air as opposed to his sister Tefnut whose name means ‘The Spitter’, because she represented the principle of moisture which brought the rain. It will be noticed that the chief theme in the text of our hexagram is the wind driving up the rain. If space allowed, it would even be possible to establish the identity of Shu and Tefnut with the Yang and Yin principles of Chinese speculation. Like the Hebrew Adam already mentioned, Shu is represented as having thrust himself, while in the ocean of Chaos between Geb the earth, on which he planted his feet, and Nut the sky,

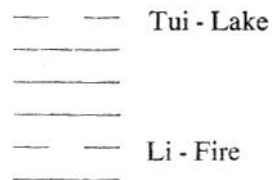
which he raised on high to become the heavens or possibly the Milky Way." We can understand from this myth how the name of the twins Shu and Tefnut, in Egyptian Tche-ti, becomes also the Egyptian name for 'the spine' Tchet, and for 'the body' in the sense of bodily form.' With the characteristic play upon words of Pharaonic teaching, the Egyptian word for the number nine 'Pestch' is also the name for 'backbone' and for 'light'. In the Egyptian imagery light is in fact represented as the backbone of Shu. So that the separation of the heavens from the earth occurs every morning with the rising of the sun (looked at from the standpoint of consciousness). Furthermore, the Book of the Dead explicitly connects the number nine with the moment where Atum generates Shu and Tefnut. In a 'Prayer for the preservation of a Pyramid" from the Pyramid of Pepi II, we have: "O *Temu*-Khepera (a name for the rising sun) When thou hadst raised thyself on the 'qaa' standard, and hadst shone as the 'Great One' in the place of shining in Annu (Heliopolis), thou didst send forth water in the form of Shu, and didst spit in the form of Tefnut (hence the cat or lioness headed aspect of the goddess)." "His heart (i.e. A Tern's) was extended when he brought you forth in your name of 'Pet', and when his number 'Nine' was on you."³⁶ There is not yet enough evidence to be able to affirm with certainty the derivation of Jewish Adamic traditions from Egyptian myth. It may well be that the very close metaphysical parallels between the various Adam's and the Atum of Heliopolis is a function of the ennead symbolism which they both share. Just as the higher Adam of Hebrew legend represents the state of Man before the Fall, and has godlike attributes of inner unity, containing within himself the archetypal forms and patterns; so does the Egyptian Atum. Adam's fall was a fall into duality symbolised by the eating of the fruit of the knowledge of good and evil. Likewise Atum, "the author of the fall consisting in the first division into two (i.e. Shu and Tefnut, the Geminian duality), the Solar Neter who stands between night and day."³⁷ The role of the Hebrew Adam of Genesis is taken over by Shu in Egyptian myth, with identical functions of separating heaven and earth and the task of "naming" created beings. "Shu, the son of the Creator in the old legend, is equated with Command and Intelligence who 'go around' the circle of total being (the circulation of the Ennead round the other numbers), giving everything its name, i.e. its distinct characteristic."³⁸ "The generation of Shu is the act which produced the multiplicity, the primary division of the original unity. Into this context is brought the giving of names."³⁹ It should now be possible for those who have followed the discussion so far to begin to get a glimpse of the enormous wealth of meaning and imagery that can be related to the ninth hexagram by taking the number nine as an objective factor in the interpretation. For students of the I Ching, I would like to refer briefly to the Tsa Kua sequence beginning with Hexagram 27 mentioned at the beginning of this paper. In this sequence nine corresponds to Hexagram 35



This represents the cosmic moment of sunrise and the birth of day. The significance of this is at once clear if we recall the Atum myth of Heliopolis already discussed, and illustrates the elaborate system of co-relations by which the I Ching brings into movement the abstract scheme of numbers and categories.

The Dove as Symbol of the Great Mother

At this point I would like to take Hexagram 49, Ko—revolution, as a remarkable instance of the way the number archetype has penetrated different traditions and even folk customs which have been preserved to the present day. The Chinese radical Ko has the following concepts associated with it: “political revolution”, “the periodic moulting of an animal’s pelt or serpent’s skin” and “the great revolution of time in the cycle of the seasons”.

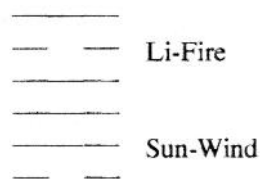


are represented as inimical principles in perpetual combat, giving rise to cyclic change in the human and animal worlds. This meaning is extended to the alternation of life and death. This is one of the few hexagrams in which the relation between “number”, namely 49, and “concept”, namely “revolution”, can be directly intuited in the multiplication of seven times seven. However in order to continue our comparison with Egyptian tradition, it is important to note the other meanings in the radical Ko, namely “a dove”, “pigeon or migratory bird”, “Venus”, “a post or a stake to which a boat may be made fast”, also “to die”—symbolised by a boat arriving in port at the end of a voyage. In relation to Time, the mooring of the boat has the significance of establishing a fixed point for marking the passage of time; so that we have in The Image—“thus the superior man sets the calendar in order and makes the seasons clear.” In Egyptian we find precisely this combination of ideas in the hieroglyph Menit, meaning “a mooring post for a boat”, “a dove, pigeon or swallow” and “to arrive in port, to die”.⁴⁰ Menit was also the Egyptian name for the constellation of the Little Bear, which together with the Great Bear revolve round the fixed point of the Pole Star.” These constellations were the earliest recorded timekeepers in the astronomy of nearly all peoples. In Egyptian funerary rites Menit was the name of an amulet buried with the dead. It symbolised virility and fecundity, and was designed to give birth and new life beyond the grave. Unfortunately there is no record that the Egyptians associated this constellation with the number forty nine or any particular period; however, Sir James Frazer records that “in modern Greece and Macedonia it is still customary for children on the 1st March, to go about the streets singing Spring songs and carrying a wooden swallow which is kept turning on a cylinder. This custom of making the image of the swallow revolve on a pivot may be compared with the pirouetting of the girl in the Servian rain-making ceremony.” He adds “the meaning of these revolutions is obscure.”⁴¹ The obscurity disappears when we recall that Ko the hexagram of “Revolution” also means swallow in Chinese, and Menit the same in Egyptian. There is an extraordinary continuity of the same archetype from the earliest recorded times down to modern Greece. Massey discussing the origin of the Menti, the Egyptian nomads, observes, “the general term for shepherds may be rendered Menti. One Egyptian root meaning of the word Menit or Menti is to go round. The collar goes round and that is a Menit. The doves, swallows and pigeons wheel round and round, and they are the Menti by name; to Men, as in the English ‘minnying’, being to perambulate, to go round. The first motion observed, imitated and named, was that of circle-making. The dove’s name answers to Tef or Teb, which in Egyptian denotes movement in a circle.”⁴³ I have given these derivations in detail because they illustrate so clearly what the I Ching means when it says “looking upward we contemplate the signs in the heavens,

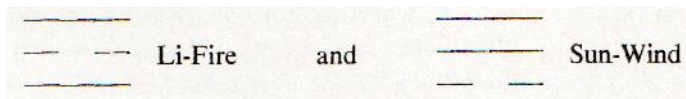
looking down we examine the lines of the earth.” The genius of the ancient Chinese sages consists in this blending of exact observation of nature with a comprehension of the eternal world of number categories which they maintain governed all natural phenomena.

The genesis of the Holy Spirit

Massey continues, “The Dove is the Menit, and it must have been an emblem of the primal genetrix, as it bears her name both as Menit and Tef, the Hebrew (DVT).”⁴¹ By using Gematria we can convert this to numbers where D= 4, V=6, T=400. This gives 410, which reduces to 50 by the use of so called Cabbalistic or Theosophical addition. We have seen that the radical Ko means Dove in Chinese. That the Dove became the symbol of the Holy Spirit is well known. Massey writes of the genesis of this symbol, “The Dove was the bird of breath or soul, the later ghost. (It will be recalled that Jesus breathed and said “Receive ye the Holy Ghost.”) An Egyptian statuette of the 19th Dynasty shows a dove with human head and wings extended over the bosom, typifying the breath or soul. It was an emblem of the great goddesses Hathor and Mut (whose name means ‘Mother’ and also ‘Death’). It brooded over the statue of the Syrian Juno at Hierapolis in the shape of a golden pigeon. It was the image of the gestator, the bird of breath, and as such is held in the hand or on the sceptre of Hera in the act of visibly incarnating the soul of breath. It was the bird of the Virgin Mother who was the brooder, the generator of the soul when both truths were assigned to the genetrix. Hence the two turtle doves of the Jewish offering, and hence also the Dove of the Holy Ghost continued in the Christian iconography.”⁴⁵ Returning to the I Ching we note that the inversion of Hexagram 49 gives us Hexagram 50



Ting—The Cauldron. We must now ask whether Hexagram 50 can be made to yield any comparisons with this traditional emblem of the Holy Spirit? We notice at once that the two trigrams which make up the hexagram, namely

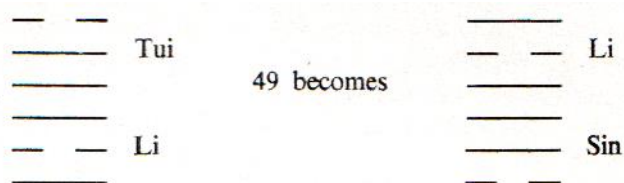


both contain the elements which traditionally accompany the manifestation of the Spirit of God; Wind as ‘breath’ we have already noted, Fire, in the descent of tongues of flame on the apostles at Pentecost. The Chinese radical ‘Ting’ has the following meanings—‘to hear, listen, understand’, ‘a cauldron or ritual cooking vessel’, as in ‘the noise of people talking like the bubbling of a cauldron’. We think at once of ‘the sound as of many tongues’ which terrified the people at Pentecost. Finally, Ting is associated with the idea of ‘a crown’ as in ‘the crown of the head’, and also means ‘a prophet or holy man’. If we now turn back to Egypt, we find the root Khá (Budge Diet, p. 535) meaning likewise ‘a furnace, fireplace, cauldron’, ‘a crown’ and ‘coronation of a king’, ‘the ascending of a throne by a king’, ‘splendour’, ‘radiance’, ‘the rising or appearance of a god’. In particular, it

enters into the name Kha-mut-f, a name of Amon or Amen about whom we shall shortly have much to say.

Now the number 50, the number of our hexagram Ting, was sacred to Bel-Marduk, in Babylonian tradition.¹⁶ Robert Graves discussing the poetic logic which connects the Jewish Jehovah, the Greek Dionysus, and the Canaanite and Babylonian god Bel, shows that Jehovah or IAHU, became associated with Bel as IAHU-BEL in an Egyptian record.” Graves continues, Tahu as a title of Jehovah similarly marks him out as a ruler of the solar year, probably a transcendental combination of Set, Osiris and Horus, but the HU syllable of his name (meaning dove), has come to have great importance in Christianity: for when at Jesus’s lustration by John the Baptist the Coronation Psalm was chanted and a Dove descended, this must be read as the Kha, or royal double, that descended on him in a stream of light from his father Iahu—as it descended on the Pharaohs at their coronation from their father the Sun-god Ra.” (Amen-Ra)⁴⁴ At this point it is difficult not to become swamped by mythological correlations, but I will include them as material for further research by those who wish to verify my evidence in detail; it will be conceded that in claiming to discover the Holy Spirit as already implicit in the ancient Scriptures of China, I need to have indisputable evidence to drive home a conclusion so disturbing to those who hold on to the uniqueness of the Judaic-Christian revelation. As we have seen, the Babylonian god Bel had 50 as his sacred number.⁴ Graves shows the mythological equivalents of Bel-Marduk, Jupiter-Amon and the Teutonic god Thor.⁵⁰ He writes, “Bel became the Supreme Lord of the Universe (his name means ‘Lord’), father of the Sun-god and the Moon-god, and claimed to be the Creator: a claim later advanced by the upstart Babylonian god Marduk. Bel and Marduk were finally identified, and since Marduk had been a god of the Spring sun and of thunder, Bel had similarly become a sort of solar Zeus before his emigration to Europe from Phoenicia.”⁵¹

The Egyptian Amon-Ra likewise became a god of the Spring sun; he adopted his ram-headed form, when he was identified with the entry of the equinoctial point into the Zodiacal sign of Aries the Ram. This occurred about 1,700 B.C., and the general adoption of the Ram symbol in Amon’s temple at Thebes at that time is sufficient proof that Egyptian symbolism was based on knowledge of the precession of the equinoxes.⁵² We have already noted the way Amon is linked with the ‘cauldron’ archetype by his name ATia-Mut-f. What is more, ‘Amen’ actually became the name of the famous cauldron of Ceridwen in Celtic myth.” The name Kha-Mut-f is a reference to his relation with his wife Mut, which was the chief theological theme of Thebes—his sacred city. It means ‘husband of his mother’ (i.e. Mut) who is the ‘mother of her father’ and ‘daughter of her son’ Recalling the traditional identification of Amon with Zeus and Jupiter, it is clear that his wife Mut corresponds to Hera the wife of Zeus, and the Roman Juno, the wife of Jupiter. We have seen that the dove was connected with the worship of both Juno and Hera. We are now in a position formally to identify Amon with Hexagram 50 and Mut with Hexagram 49 in which the dove was the key symbol. If this is correct, the movement of inversion in which



50 provides the original formal archetype for the relation of Amon to Mut, Zeus to Hera, and hence all the great triads of Egyptian myth. (c.f. the symbolism of the trigrams as sons and daughters of the Creative and the Receptive). That this conclusion is correct is established by the Egyptian root *Pekhar*; 54 meaning 'to revolve, go round, encircle'; *Pekharit*—'revolution of time'; *Pekhat*—a name of the vulture and lioness forms of the goddess Mut. We recall all these as associated with the Chinese 49th Hexagram—Ko. We can also clearly identify Mut with 'Anthat', Goddess of love and war (revolution) in the Ugarit (Phoenician) myth. The feminine role in relation to the male as 'passive' or 'denying' force is enshrined in a Hymn to Anthat. "With a sword she cleanses him, with a pitchfork she winnows him, with a fire she burns him, in the millstones she grinds him, in the field she plants him."⁵⁵ This myth refers not only to the familiar agricultural practices, but to the function and relationship of the Great Goddess 'Nature' to the human soul. The alternation of life and death, or 'repetition of lives', being the means by which Nature pursues her eternal alchemy.

C. G. Jung in his discussion of the Trinity refers at length to Kha- Mut-f as an Egyptian type of the Holy Spirit. "Egyptian theology asserts, first and foremost, the essential unity (homousia) of God as father and son, both represented by the king. The third person appears in the person of Kha-Mut-f ('the bull of his mother'), who is none other than the Kha, the procreative power of the deity. In it and through it father and son are combined, not in a triad but in a triunity. To the extent that Kha-Mut-f is a special manifestation of the divine Kha, we can actually speak of a triunity of God, king and kha, in the sense that God is the father (Amon), the king is the son, and Kha (Holy Spirit) the connecting link between them." "As procreator, the Holy Ghost would correspond to Kha-Mut-f who connotes and guarantees the unity of father and son." "The divine procreation of Pharaoh takes place through Kha-Mut-f in the human mother of the king, but like Mary she remains outside the Trinity. The early Christian Egyptians simply transferred their traditional ideas about the Kha to the Holy Ghost."⁵⁶

"According to the old doctrine the Holy Ghost is a real person who is sent by the Son and the Father. The procession from the Father and the Son is a 'spiration' and not a 'begetting'. This somewhat peculiar idea corresponds to the separation, which still existed in the Middle Ages, of 'corpus' and 'spiramen'. The latter being understood as something more than mere 'breath'. What it really denoted was the anima, which, as its name shows, is a breath-being (anemos—wind). Although an activity of the body, it was thought of as an independent substance (or hypostasis) existing alongside the body. The underlying idea is that the body 'lives', and that 'life' is something superadded and autonomous." "The Holy Ghost as 'life' is a concept that cannot be derived logically from the identity of Father and Son, but is rather a psychological idea, a datum based on an irrational, primordial image. This primordial image is the archetype, and we find it expressed most clearly in the Egyptian theology of kingship. There as we have seen, the archetype takes the form of God the Father, Kha-Mut-f (the begetter) and the Son. The Kha is the life-spirit, the animating principle of men and gods, and can be legitimately interpreted as the soul or spiritual double." "We have seen that Kha-Mut-f is a hypostatization of procreative power. In the same way, the Holy Ghost is hypostatized procreative power and life-force."⁵⁷

I hope by now to have established conclusive evidence to show that a pure archetype of the Holy Spirit occurs in Hexagram 50 of the I Ching. If any doubt remains we have evidence that the Bible itself identifies the Holy Ghost with this number. "The law was given to Moses on Sinai 50 days after Israel came out of Egypt, and the Holy Spirit descended on the apostles 50 days after the

Resurrection. 50 is said to be the number of the Holy Spirit.”⁵⁸ Finally, we may, without using very much mythological license, surmise that the traditional method of consulting the I Ching by means of 50 yarrow stalks, is in fact an invocation of Kha-Mut-f and ‘the Trinity’. “The number of the total (yarrow stalks) is 50. Of these 49 are used. They are divided into two portions, to represent the two primal forces. Hereupon one is set apart (the fiftieth) to represent the three powers.”TM “The number 50 refers to the all inclusive World of Creation. 50 is seven times seven plus the ‘One’ from which all issues and to which all returns. In Hebrew and Arabic the letter ‘N’ has the value of 50. The Arabic form „xxx has been associated with the Ark floating on the Waters, and with the Womb containing the Germ of life. The -xxx is also the Holy Grail, the Crescent Moon Vessel, and the World-Egg.”⁵⁹ We can now understand why Mohammed used this sign as the symbol of Islam.

The Holy Grail and the ‘Ting’

To find the Grail archetype in the Cauldron ‘Ting’ of the I Ching would not now seem so outrageous. But this is a subject that merits another paper; let us only recall ‘Amen’ the Cauldron of Ceridwen. An old Chinese alchemically tinted legend, in which the symbolism of 49 and 50 is used, predates the theology of the Atonement and Redemption by several thousand years. It concerns the origin of the famous ‘sang de boeuf’ vases. “Once the Emperor gave a famous potter the order to make vases the colour of blood. Forty-nine times the potter tried to fulfil the imperial command, vainly feeding his furnace for seven days and nights. Upon the eighth night the potter bade all his weary comrades to rest, for that the work was well-nigh done and the success assured. ‘If you find me not here at sunrise’, he warned them, ‘fear not to take forth the vases, for I know that the task will have been accomplished according to the command of the August.’ So they departed. But in that same night the potter entered the fire and yielded up the ghost in the embrace of the Spirit of the Furnace, giving his life for the life of his work, his soul for the soul of his vases. And when the workmen came upon the ninth morning, even the bones of the potter had ceased to be, but lo! the vases lived and glowed with the colour of blood.”⁶¹

I will close this study of what I hope I have shown to be a truly ‘sacred’ book, by observing that Christian missionaries who take the ‘good news’ of the Gospel to China, cannot do more than remind this astonishing people of what they have always known. As Jung has surmised, the revelations of the Holy Spirit follow the precession of the equinoxes,⁶² and we may ourselves have need to listen to ‘The Ting’ in order to hear the message of the New Epoch.

APPENDIX ON THE PHILOSOPHY & STRUCTURE OF THE I CHING

The earliest classical Chinese philosopher to regard the I Ching from the point of view I have tried to present was Wang Pi (A.D. 226 - A.D. 249). In his Chou I Lueh Li it is clear that he regards the pure enunciation of the category, as the principle of order, as self-sufficing.

“Motion cannot control motion. That which controls the motion of the world is absolutely one. Therefore in order that the many may all be equally sustained, the dominant factor must be entirely unitary. Things do not struggle among themselves at random. They flow of necessity from their principles of order. They are integrated by a root cause. They are gathered together by a single influence. Thus things are complex but not chaotic. There is multiplicity of them but not confusion.” Commenting on this passage Dr. Needham says, “We may be sure that in speaking of the one, he had in mind the immanent Tao. What he was trying to describe was perhaps a series of fields of force contained in but subsidiary to the main fields of force in the Tao, and each manifesting itself at different points in space and time. He believed that to each of these there corresponded one of the hexagrams of the I Ching.”⁶³ Needham continues, “More than sixty years ago Eitel wrote: ‘There is underlying these diagrams a recognition of the truth that things are groups of relations. The diagrams themselves are to my mind clearly ideal constructions expressing real elements of experience, though imperfect and fanciful. The diagrams are simply abstract types substituting an ideal process for that actually observed in Nature. They are formulae in which the multifarious phenomena are stripped of their variety and reduced to unity and harmony. Causation is here represented as immanent change, as the constant interaction of the bipolar power of Nature which is never at rest, balanced or free, the mutually sustaining opposition of two forces which are essentially one energy, and in the activity of which divergence and direction are inherent’.” Dr. Needham remarks “that it was very unfortunate that the ‘ideal process’ substituted for what was actually observed in Nature was an empty symbolism and not a series of mathematized hypotheses.”⁶⁴ I hope that I have made clear in this paper that the hexagrams are precisely qualitative ‘mathematical hypotheses’. By showing the inner relatedness of number and concept this apparent arbitrary character dissolves, and the I Ching becomes what its adherents have always claimed it to be—‘an open book of Nature’. “When, a little over thirty years ago, Masson Oursel said of the I Ching ‘that it supposes a kind of translation of all natural phenomena into a mathematical language by means of a set of graphic symbols, germs of what Leibniz would have called a “universal character”, thus constituting a dictionary permitting men to read Nature like an open book, whether with intellectual or practical aims in view’, he was taking the name of mathematics in vain, as well as speaking of Nature in terms which a Pasteur, a Bohr or a Hopkins would never have dared to adopt. For we are back again in that illusory realm of numerology where number is not the empirical and quantitative handmaid of natural phenomena, but the categorical damsel of Nuremburg in which they have to be made to fit.”⁶⁵ I hope that I have redeemed this admittedly enchanting damsel from her role as mathematical renegade, and made a respectable matron of her, if not a queen.

In conclusion, the real inner significance of the philosophy contained in the I Ching has been expressed most forcibly by Lama Govinda. “Those who think that form is unimportant, will miss the spirit as well; while those who cling to form lose the very spirit which they try to preserve. Form and movement are the secret of life and the key to immortality. Those who see only the transitoriness of things and reject the world because of its transitory character, see only the change on the surface of things, but have not yet discovered that the form of change, the manner in which change takes

place, reveals the spirit that inspires all form, the reality that informs all phenomena.”⁶⁶ This is undoubtedly the key to finding the Tao of the I Ching.

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61. Ibid—p.165.
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APPENDIX

63. NEEDHAM, Joseph. "Science & Civilization in China" Vol.II. p.322.
64. Ibid—p.326.
65. Ibid—p.326.
66. GOVINDA, LAMA. "Foundations of Tibetan Buddhism" Rider & Co. London 1960 p.219.