

**Motif patterns under the discussion of Sufism**

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**Abstract**

This paper express the study of symbols and images used by the mystics and of the degree of their interdependence belongs to this field; it opens the way to an examination of the contribution of Sufism is built upon the principle of the disciple's initiation. Invisible foundation with their esoteric philosophical values upon which the 'art' was built. This meant that the Islamic artist was not that mathematics in the geometrical sense, but that mathematics was integral to his art as it was a 'universal' structure supporting the intuitive insights that characterize all true art.

**Introduction**

The specimen patterns are found throughout Islam which is developed from simple grid with the greatest ingenuity, so as to produce highly complex results. These 'patterns of integrity' feature a 'hidden' internal geometry which only close analysis reveals.

If we take these moves into the three dimensions as being symbolic of the creation of space of the world, then it follows that can reserve in the folding up of the dimensions, leading us back to the point of unity or the invisible. In terms of consciousness this can be described as path of reabsorption between Knower, Knowing and Known, a convergence where subject and object are obliterated in unity.

In the manifest world (the world of creatures), observe things developing, having a duration and being reabsorbed. This elementary law of all phenomena can be symbolized geometrically in the way that space, seen as extension, is created by unfolding through the dimensions and can be 'folded up' again through the understanding of its nature. For instance, take a point which, having emerged, proceeds to describe a line; the line moves lateray or in a curve to describe a plane; the plane rotates or moves in a further direction to create the solid dimension, the third dimension, to which all phenomena of the manifest corporeal world are subject.

Starting with a luminous point; the first line is extension from this point. The limits of this extension having been reached, rotation takes place to encompass the next domain, an area. With this enclosure formed, a cycle is completed, a world in the form of a circle. The circle becomes the archetypal governing basis for all the geometric shapes that unfold within it, this two dimensional world being one dimension nearer to the origin than is solid world. The circle's primary inherent quality is one of sixness as will be demonstrated in terms of the radius and its relationship to the circumference.

Sufism, in its essence is timeless; but its historical manifestation begins with the Quran. (p. 52). The prophet Mohammad (PBUH) said, "God created the seven heavens" (65:12)

The companions of the Prophet (PBUH) were devout men who performed acts of meditation and constant remembrance of the Divine through its Names and through repetition of the text of the Quran; and after the death of Prophet (PBUH) this group spread and trained disciples.

The mystic of the voluntaristic type wants to “qualify himself with the qualities of God”. The mystic of the Gnostic type strives for a deeper knowledge; no mystic could ever dare to “Know” essences of the God. This mysticism can be seen as a practical life process. In Islamic mysticism, these both aspects are equally strong and in later periods they are intermingled.

Most of the information about oriental spirituality, however, was derived from the translations of Persian poetry Saadi’s Gulistaan.

“The doctrine of Sufism was generated and must be illustrated out of Mohammad’s (PBUH) own mysticism” (F.A.D. Tholuck)

By the research of Louis Massignon on single mystic’s life, “martyr of divine live” is the example for this approach.

Tawakkul, “trust in God” is a particular mystical attitude by Benedikt Reinert. This thing can be see in mystical poetry derived from the large area of Iranian cultural influence.

The structure of the Arabic language- built upon trilateral roots- lends itself to the developing of innumerable word forms following almost mathematical rules. It linked to the structure of an arabesque that grows out of a simple geometric pattern into complicated multiangled stars, or out of flower motif into intricate lacework.

Rhymes and strong rhythmic- features inherited by the mystics of the Persian, Turkish and Indo- Muslim tongues.

“Theosophical” is the aspect of Islamic mysticism.

Sufi is called because he wears a woolen garment other that he is so called because he is in the first rank, others sy it is because the sufis claim to belong to the ashaab-e-Sufa. (H 30)

**Sufism** is not composed of practices and sciences, but it is morals (H 42), and “who surpasses you in good moral qualities surpasses you in Sufism”

“Sufism is to possess nothing and to be possessed by nothing”

The main target of sufi criticism was philosophy, influenced by Greek thought: “There is nobody more distant from the Law of the Hashimite prophet than a philosopher”

The study of sensible geometry leads to skill in all the practical arts.

In the fundamental formula of Islam-“Iaa ilaaha illaa Allah” (no divinity if not the sole divinity).

### **Sufi philosophy**

**Sufi philosophy** includes the schools of thought unique to Sufism, a mystical branch within Islam. Sufism and its philosophical traditions may be associated with both Sunni Islam and Shia Islam. It has been suggested that Sufi thought emerged from the Middle East in the eighth century, but adherents are now found around the world. It was around 1000CE that early Sufi literature, in the form of manuals, treatises, discourses and poetry, became the source of Sufi thinking and meditations. Sufi philosophy,

like all other major philosophical traditions, has several sub-branches including metaphysics and cosmology as well as several unique concepts.

### Sufi metaphysics

Major ideas in **Sufi metaphysics** have surrounded the concept of *waḥdah* (meaning "unity"). Two main Sufi philosophies prevail on this controversial topic. *waḥdat al-wujūd* literally means the "**Unity of Existence**". On the other hand, *waḥdat ash-shuhūd*, meaning "**Apparentism**" or "**Unity of Witness**", holds that God and his creation are entirely separate. Some Islamic reformers have claimed that the difference between the two philosophies differ, only in semantics and that the entire debate is merely a collection of "verbal controversies" which have come about because of ambiguous language. However, the concept of the relationship between God and the universe is still actively debated both among Sufis and between Sufis and non-Sufi Muslims

### Art

The great master of this art were certainly motivated by the versed in spiritual disciplines that gave both content and meaning to their work and placed it in the tradition of aiding the viewer to raise his or her spiritual understanding. This quality is also found in the great Chinies and Japanies paintings of Sothern Sung and later Zen respectively, in the Yantras and mandalas of Hindu, Tibetan and Buddhist art, and in the sand paintings of the North American Indians.

Islamic art is a predominantly a balance between geometric forms and what can be called fundamental; representing biomorphic forms: a polarization that has associative values with the four philosophical and experimental qualities of cold and dry ; representing the crystallization in geometric forms, representing the formative forces behind vascular form.

### Point

Point which serves as a symbol for unity and source. In term of geometry it represents the centre the elusive controlling point o all forms. The manifestation of an action, object or thought necessitates a point of origin or departure. If the point is indicative of a departure from the source, then the direction is implied. The first departure or line path from the point is qualitative. The measurement is only possible between two points; hence direction must precede measurement. The line path can be taken as representing the point 'externalizing' itself. A line, when a point has moved outside and away from its original position, symbolizes the polarity of existence, although it consists essentially of three elements, two ends and a relationship between them. (Fig 1)

Having a limited departure from the point of origin polarity expresses itself in the relationship of the central original point and the outer projected point. This expression forms an arc with line representing our original departure as radius. (Fig 2)

The arc implies the control exercised by the centre point and expresses the demarcation of the active outer limits; the movement expresses an expansion. As the arc closes, another primordial threeness becomes evident: a centre point of origin; departure from this centre as direction or field, and boundary to the domain. (Fig 3)

Once the enclosing circle is completed, a unity is obtained; this reflects the unity of the original point. The circle is not only the perfect expression of justice, equality in all direction in a finite domain but also

the most beautiful 'parent' of all the polygons, both containing and underlying them. Outside the concept of time, the circle has always been regarded as a symbol of eternity, without beginning and without end, just being. As a symbol within the limits of time or rather subject to that condition of existence. (Fig 4)

When expansion has been established in three circles come to rest with their outermost point just touching; in this way the principal polygon, a triangle is established. The triangle is thus the first polygon, the minimal expression of an area. It is also symbolic of the minimal needs of consciousness as Knower, Known and act of Knowing as the minimal description of the basic biological needs, ingestion, absorption and excretion (Fig5). As the rotation growth pattern continues, the six circles established the first parallel. The relationships between points of contact increase to sixteen radial triangles (Fig 6, 7). The seventh circle completes another unity (Fig 8). The growth in the numbers of circles from their center has been shown one at a time. We will now examine a form of simultaneous expression of direction. Each of the six possible directions from the center will manifest itself at the same time. As before our starting point is the same primordial circle, a symbol of simplicity and plentitude. (Fig 9)

### **Opposite**

The second stage of expansion has been arrested at the critical phase where each of the six externalizing circles has reached the equilibrium state of being exactly half way. The six centers are exactly equidistant both from each other and from their source. This point in the flower of the circle is beautifully expressed in the pattern formed within the center circle. (Fig10)

As the parting circle move further into their own individuality the fourth stage is reached when the overlapping parts of each circle remain, arcs describe exact square and triangular relationships for the first time. (Fig 11)

The number of intersection of the arcs has now fallen dramatically to a total of twelve. When these are joined the relationships demonstrate the six fold nature of each circle and fundamental hexagon division of a plane once again. (Fig 12)

### **Symbol**

Symbols can exhaust verbal explanation but verbal explanation can in on way exhaust symbol, symbols are directed toward undifferentiated unity, while verbal explanations involve never less than two, the donor and recipient' ever if they become the same there still exists the separation of reference; the subject itself and the explanation. Pattern like number is one of the fundamental conditions of existence.

So far the symbolism has been considered as a horizontal phenomenon with the center controlling circle representation the vertical axis; at this completion stage the axis of the image is changed so that they are three circles, one above the other, now to be considered the vertical axis for the purpose of our proposed symbolic interpretation. The center circle losses non of its significance as the fulcrum but in this situation it becomes the balancing point between manifestation below and metaphysical origins above, represented respectively by the lower circle; the sensorial worlds and above as the upper circle as the world of being. On the universally applicable framework of essential geometry, propose to symbolize the Islamic perspective.

### **Introduction of shapes**

The equilateral triangle, the hexagon and the square are the three primary plane shapes which will independently fill a surface without leaving any gaps. Each shape has its own archetypal behavior in term of itself and in different ways within its own matrix. (Fig 13)

Hexagon with their sixness and six sidedness can give rise to different smaller or larger pattern by surrounding each point and with a smaller similar figure so that each has a common edge with its neighbor; this implies an indefinitely small and large growth system. (Fig 14)

The triangle also has many ways of reflecting itself reproducing itself in a similar manner. It also creates further triangles by forming a link between opposite points of pairs, so that pattern of six triangles in hexagon form has two such larger triangles within it. The square also has different ways of relating different coincident matrices of itself to itself.

### **Square**

Square, the symbol of physical experience and the physical world and totally dependent for its construction on the circle. The most elemental method of geometry using a circle and two straight edges, the first shape to emerge is demonstrated to be the equilateral triangle, as a product of unity figure, the circle. As proposed to follow the build up from the ground, it starts from the square. (Fig 15)

### **Triangle**

The second polygon in established triad, the triangle is demonstrated as the natural division of the circle. By tradition symbolic of human consciousness and the principle of harmony, the triangle is the geometrical expression of two entities and their reconciling relationship. (Fig 16)

### **Hexagon**

The qualities of the hexagon, which is graphically the most natural shape with straight line edges produced by equal divisions of the circumferences of circle. The points of intersection are joined to the corner of the rectangles from which the diagonals are drawn. (Fig17).

A square, a triangle or a hexagon can result if the work is to repeat regularly (Fig 18). Variations will emerge as experiment goes beyond the first three basic shapes, but it is on this very simple law of threeness that the foundations of Islamic geometric patterning are rooted, practically, symbolically, philosophically and aesthetically. (Fig 19, 20)

### **Magic Square (numbers)**

Magic squares are conspicuous instances of the instances harmony of number and so they will serve as an interpreter of the cosmic order that dominates all existence. They appear to betray some hidden intelligence which by a preconceived plan produces the impression of intentional design. The attitude would not be so very different to the traditional Islamic one. The actual difference, however being firstly the undoubted Divine origin to mathematics, secondly the qualitative aspect of number is given greater significance and therefore metaphysical effectiveness, then the merely quantitative. Scholars of fourteenth century place the science of numbers at the 'root' of all sciences, the foundation of wisdom, the source of knowledge and pillar of meaning.

**Saturn**

Saturn as archetype is a summary between odd and even numbers. There are eight possible ways to arrange the outer numbers around the central figure 5. (Fig 21)

**Jupiter**

A set of specific arrangement defined as areas each with its numerical sum, this demonstrates the qualitative value that such number squares held for Islamic philosophers. (Fig 22)

**Mars**

Mars as archetype is a summary between odd and even numbers. (Fig 23)

**Sun**

Sun as archetype is a summary between odd and even numbers for certain calendaric consideration. (Fig 24)

**Venus**

Archetype is a summary between odd and even numbers. Its arrangement has many summing symmetries as the previous example, the square of the sun. (Fig 25)

**Mercury**

The mercury has unusual asymmetry between the groupings of odd and even numbers. This has the same intrinsic integration of arithmetical and geometrical patterns. (Fig 26)

**Moon**

Moon archetype is a summary between odd and even numbers. This completes the planetary archetypal set. (Fig 27, 28)

**Pattern and Cosmology****Cosmology**

A cosmos by definition presupposes an ordered universe. Cosmology is the logic or study of the laws and intelligence inherent in this ordered universe.

The overriding principle for Islam in the unity of existence and therefore of the universe. This unity has always an inner and an outer aspect, a hidden as well as manifest aspect. From this it follows that there is an inner as well as outer way of studying cosmology. The outer embraces sensible observation, the inner is appreciating the expression of cosmological laws within one's own structure. The goal of spiritual disciplines is to unite the inner and outer, the greater and smaller, into an inseparable integrity. (Fig 29)

**Islamic cosmology**

Traditional Islamic cosmology, which has its authoritative roots in the revelation of the Quran, has been developed outwardly with the unfolding of Islamic science and Philosophy. The teaching of all three major monotheistic religions confirms that the Creation was accomplished in six days. The subject is too

extensive and it is inappropriate here to attempt to enlarge on the meaning of this doctrine. However, it is appropriate to state it is an error of times to treat such matters as revelation on an exclusively literal plane. This is not only damaging to the nature of revelation, as it prevents access to the ontological dimension, but amounts to blasphemy in as much as this word means a hurt-doing or a cutting off from unity. What we will do, however, is to recall the tradition of treating numbers as expressions of archetypes and observe the integral nature of the compact symbols inherent in this diagram. (Fig 30)

The philosophical perspective of Islam takes the patterns and periodicities of the heavenly revolution to be 'moved' by the same archetypes as the mind of man which appreciates them. It therefore follows that as the Sun and Moon controls the biorhythms of bodies and influences our animistic psychology, so the archetypes control the rhythm of the Heavens. By being in harmony with these rhythms that is y placing oneself at the center of them, much as the nucleus controls a cell or the center of balance which maintains poise, one (God) can master them by being at one with the circle surpasses all other geometric patterns as the symbol of cosmic unity, its inner core or hidden center becoming the timeless moment of the revolution of time and the dimensionless point of the encompassing space.

The indication of the period of time and directions in space occurs in pattern form as intervals around the perimeter of the primal circle. For instance the force of clock with its twelve hourly divisions exemplified the measuring of the passage of time with precession, where as if one should join these same intervals on the clock face with straight lines one would describe a twelve sided shape, a dodecagon. Both can taken as expressions of the archetype twelve and in cosmology they are united temporally and spatially in one complete annual cycle of our planet; the twelve zodiacal constellations give us both a directional guide and specific periods of time by which to measure the whole year.

The natural divisions of the year and the rhythm of Sun, Moon and Earth which define it, are a fundamental key to cosmological numbers, although strictly speaking all numbers are cosmological in as much as they are represent repetitions of unity and are embraced by it. The year is one circle, one circle, from mid-winter to mid-winter: from the least daylight sun at the mid- winter solstice to its 'renewal' the day after. The circle is polarizing by the summer- winter turning point. This immediately gives rise to the 'fourness' of the year; squared by the two intervals half way between these major events of longest and shortest night of the year. The equality of the day and night length occurs twice, once at the spring equinox and once at the autumn. Thus the 'season' are marked by the length of daylight which in turn is determine by the planet's position relative to the Sun. spring, summer, autumn and winter form the square of the year and are symbolically linked with the cardinal points of the compass, East, South West and North. Returning to the year, the next most important factor is the triangular relationship between Sun Earth and Moon. The primal three as archetype represent the minimal conditions for existence, one the other and the conjunctive or put another way, the viewer, viewing ant the viewed or object subject and relationship. It has been suggested that the essential spiritual triangle in Islam is ALLAH, Remaan and Raheem, as they occur at the beginning of each surah of the Quran.

Three gives rise to six and six has a vital role in Islamic cosmology as it does in the other two Abrahamic religions as Judaism and Christianity; and that role relates to the number of days in which God created the world. The Abrahamic wisdom insists that regard the inner and outer meaning of this cosmogony, the symbolic and literal dimensions. The six pointed star is a symbol of perfection in all three religions. (Fig 31)

Six naturally doubles into twelve, which unites the archetypal three with the archetypal four. The profundity of twelve is echoed in the twelve imamas of Shiea Islam and in the timeless archetypal sense can be seen expressed in the twelve disciplines of Jesus Christ. In geometrical terms law of twelve is

elegantly precise when twelve equal spheres are brought into contact and exactly touch a center enclosed nuclear sphere. Twelve is also the great number of evenly distributed points on a single spherical surface which, when connected by lines, result in equilateral triangles. This is known as the icosahedrons. In pure geometrical expression this law of distribution of twelve points on a sphere is demonstrable in the following way.

Starting from the centers or point distribution, which in the nodes of the Platonic figure known as the icosahedrons, if imagine these expanding to take possession of equal surface area or domain of the sphere they expand until they meet each other at five equal distributed point; if these points were joined the lines would describe a spherical icosidodecahedron. If these domains or areas kept spreading without infringing the domain of the five neighboring domains, each eventually become pentagonal. This is the pentagonal dodecahedron, traditionally related to the universe by Plato in his cosmological treatise, the *Timaes*, and embraced into the Islamic philosophical perspective. The basic number of Zodiac, 12, is a product of 4 and 3. As interpreted traditionally, these numbers symbolize the fourfold polarization of universal nature in to the active qualities of heat and cold and the passive qualities of moistness and dryness which in their combination from the elements and the three fundamental tendencies of the Universal Spirit (*al-Rooh*), which are

1. The descending movement away from the principle.
2. Horizontal expansion
3. Ascent back to the principle.

The twelve signs, therefore, contain their numerical symbolism the totality of the principles which govern the cosmos.

There is hierarchy of values to indefinite of combinations and in relation to terrestrial existence the relation to terrestrial existence the relation of the signs to the cardinal points of the compass is of considerable significance because of the role of 'sacred geography'.

In brief, 'the Heaven of the archetypes' stands outside the space of the manifest cosmos; 'Pure Being, which is meta-cosmic, is hidden by the signs while at the same time its polarization is manifested by them. They contain the four qualities of Universal Nature (*tabiat al-kull*) and the three fundamentals tendencies of spirit (*al-Rooh*) and therefore the archetypes or 'ideas' of all the manifestations of Nature which witnesses in the world.

Next is important in the philosophical perspective of the world is the way in which the Divine Intellect is filtered through the seven spheres of the planetary world. The planets themselves are each to be considered as the physical point which defines a sphere of influence by its orbit, and each of the seven planets represents a concentric sphere between the world and Pure Being beyond the Zodiac sphere. These spheres, from the contemplative point of view can be considered as modes of the Intellect in its macrocosmic aspect. The spiritual forces which change the nature of the bodies submitted to their influences, the sphere of each planet is to be thought of as forming an intermediat domain belonging at the same time to the corporeal and subtle world. As intermediaries, the planets "transmit" the fundamental qualities of the Universe from the archetypal world to the Earth.

The number seven, 3+4, is to be considered a product and expression of the same archetypes as those which, when multiplied produce the twelve of the Zodiac. Both are symbolically generated by the same force.

As the macrocosmic manifestation of the intellect, the planets must of necessity have a bearing upon all terrestrial beings which, like everything else in the cosmos, owe their existence to the Universal Intellect which in Islam is Identified with the "light or reality of Mohammad".

Seven is also intimately connected with the Moon. The Moon is to be taken as the feminine principle in this perspective, measuring the Heaven in the passive manner, complimenting the active, masculine, role of the Sun. as the closest planet to the Earth, Moon acts as a final intermediary between all the other heavens and the final terrestrial domain in such a way that the lunar mansions synthesize in themselves all the elect which are manifested aspects of the Intellect which are manifest in the planetary spheres and the archetypal world of Zodiac signs.

Seven not only represents the number of planetary spheres but is the quarter division of the lunar cycle of twenty eight days. Numerically the mentions of Moon, the positions in relation to the background of fixing stars, are the twenty eight nights in which its changing phases can be observed. These are philosophically composes of the numbers 1+2+3+4+5+6+7, equaling 28, which is the sum of the planets numerically and in qualitative terms of the modifying action that each has on the effusion of the light of Divine Intellect.

Nine is another number with an esoteric significance extending far beyond the scope of normal thinking. Returning to the primal 'threeness' of the descending, expanding and ascending aspect of the light of Divinity upon which all manifestation depends, the equilaterality triangle most aptly expresses this subtle symmetry. The triangle itself is the outward manifestation and crystallization of the three-fold symmetry itself. It is to be constantly recalled that the spatial controlling factor of Islamic geometric pattern is symmetry.

Three by doubling, or in geometrical terms by the triangle inverting and being overlaid on itself, becomes six or the hexagram or six pointes star, is archetypally expressed in the days of creation in both Quran and Bible, the centre or seventh position relating to both 'rest' and the 'throne'.

Three multiplied itself becomes nine, as if each original aspect or corner of the triangle reflected the other two in itself. Reflection or summery, as noted above, is one way of appreciating the mystery of multiplicity in relation to unity. Nine has a special relation to the 'Heavens' and their generating Intellects according to Ibn Sina the great philosopher and physician. This is expressed in an interesting symmetrical table (Critchlow 60)

Number of Heavens	Names of Heaven	Number of Generating Intellect
9	Heaven of Heavens (falak al- aflak)	1
8	Heaven of Sign of Zodiac (Falak al- Buruj)	2
7	Saturn	3

6	Jupiter	4
5	Mars	5
4	Sun	6
3	Venus	7
2	Mercury	8
1	Moon	9

### **Comparative cosmology which link the Platonic solids, their inherent spheres and the orbits of the visible planets of the solar system.**

The planetary Sphere, discovery by Kepler, the overall volume contained by the orbit of any given planet around the sun, corresponds to a remarkable degree, to a sequence of spheres inherent to the platonic figures. The largest sphere in which a cube is drawn is symbolizes the planetary sphere of Saturn, the size of the second sphere is governed in its proportion by inscribing the cube within the large sphere. This smaller sphere represents a correspondence to the orbit of Jupiter, which has been extended upward in broken line and the tetrahedron has been drawn with its points lying within the sphere. The insphere of this tetrahedron corresponds to the orbit of Mars which proceeds in the same way through the orbit of the Earth, Venus and Mercury. The only difference lies in the relationship between the orbit of Mercury and the octahedron within the orbit of Venus, as Mercury's sphere corresponds to octehedron's intersphere and not the insphere as with all the others. Fundamental face shapes of Platonic figures, triangle, square and pentagon. These have been subdivided into their characteristics symmetries in alternate toned areas which are also a key to their spherical interpretation. (Fig 33)

In another perspective, the Quranic premises of the doctrine are as follows.

The prime or first 'Presence' is the absolute unity of God *Allahu ahad* , the second is God as Creator, Revealer and Saviour, the divine qualities; the third is the 'Throne', *Arsh*-supr formal manifestation identified as the world in its entirety; the forth is the 'Footstool' , *Kursi*- on which the feet of God rest; the fifth most distant, 'Presence' is the earth, *ard* and the human realm, *Nasut*.

These five Divine Presences should be borne in mind whenever the pentagon or five- fold symmetry is referred to symbolism. (Fig 32)

This pattern of tens and fives is fundamental to a host of traditional patterns in five- fold symmetry; one might call it the master plan underlying the various expressions. It should be noticed that the sacred name, Mohammad is rotated around a five pointed star, indicating connections between prayer, sound repetition and significant numbers and symmetry 'ordering' space. Pentagon within the central pentagon is directly related to the 'bottle', shaped, ten sided configuration which was shown in (Fig 34) and is characteristics of a whole 'school' of Western Islamic patterns, exemplified in the Persian city of Isfahan.

These shapes built up many patterns which are the feature of many Islamic patterns and a potential of all Islamic art, symbolizing in one aspect, the concept of microcosm and macrocosm reflecting each other.

This particular vision shows how a particular multiple of smaller shapes of this family of patterns can be arranged so as to produce star decagons on the apices of a larger set of similar shapes. In this instance a large pentagon and a pair of characteristic rhombs are shown.

### The Tetractys

The tetractys has been defined as its most simple and literal level as the Greek term signifying an aggregate of four: and specifically applied to the Pythagorean perfect number, ten (being the sum of  $1+2+3+4$ ). (Fig 35)

This deceptively simple description of the philosophical model apparently used by the school of Pythagoras, whose tradition was recorded for posterity by Plato in the *Timaeus*, belies the depth of its possible interpretation while at the same time reflecting the extreme simplicity of the model. The most decisive evidence for the influence and transmission of Pythagorean philosophy, in its correct meaning of 'love of wisdom or Knowledge', is particularly seen in work of brotherhood of Purity (*Ikhwan al-Safa*) and of the philosopher Suharwardi. (Fig 36, 37)

The Brotherhood of Purity, however, speaks of their indebtedness to and respect for the Samian Master: Pythagoras was the first who spoke of the nature of numbers. He taught that the nature of numbers is in relation with that of nature. Whoever knows the nature of numbers, their species and genus and their properties can know the quantity of species of beings and their genius. And further more they explained their understanding of this archetypal power of number: 'Know' brother, that the creator most exalted created as the first thing from his light of unity the simple substance (*al-jawhar al-basit*) called the active Intellect. As two is generated from one by repetition. Then the universal soul was generated from the light of the Intellect as three is generated by adding unity to two. Then the hyle was generated by the motion of the soul as four is generated by adding unity to three. Thus proceeds the intelligent and numerical unfolding numbers of the phenomena of creatures. Above all the sciences of numbers was considered by the *Ikhwan* was the way leading to the grasp of the unity, as a science which stands above Nature and is the principle of being and the rest of the other sciences, the first elixir and the most exalted alchemy.

For the *Ikhwan*, number was the 'Spiritual image resulting in the human soul from the repetition of unity'; since they believed that the final aim of geometry is to permit the faculties of the soul to reflect and meditate independently of the external world so that finally "it wishes to separate itself from the world in order to join, thanks to its celestial ascension, the world of the spirits and eternal life.

The basic archetype of the Zodiac and Planets as expressed in the macrocosm and observed the role of the numbers 3 and 4: three as a descending, expending and ascending of the spiritual light as source, and four as the cardinal qualities of heat, moistness, dryness and cold. These two archetypal numbers are united in the geographical figure and prime solid, the tetrahedron. This figure has four triangular faces and four nodes; and is traditionally associated with Plato as the first member of the four regular solid figures known as the Platonic solid. In fact it is well to remember that Plato was in fact recording an oral tradition, the dialogues and even through the figures can be deduced from his obscure description in the *Timaeus*, he was obviously guarded as to how much he revealed of the mathematical knowledge of the Pythagorean tradition.

**'My companion are stars, whom so ever any one of you follow, you will be right guided'.  
(Mohammad)**

Time is traditionally described as a flowing image of eternity. The circle, as representing the active point of the compasses returning to its own point of departure, is a good symbol of the timeless whole, while the moving point itself represents the passing of time as it describes the circle. (Fig 38)

At the head of this chapter three circles are shown within the whole or greater circle. Each of these three circles has within it a shape: a triangle, a square and a hexagon, so placed to represent a traditional form of symbolism. In the bottom circle the square is the representative of the earth or the world of the physical elements: earth, air, fire and water, the solid, liquid, gasses and radiation states of energy. The center circle is the circle of man, the conscious animal. The triangle represents his three-fold nature and the three fold nature of his consciousness: that is the knower, the known and the knowing. (Fig 39)

The object, the subject and the conjunctive or the relationship which links them. The hexagon in the top circle as the number of perfection is symbolic of 'heaven'; it is the natural division of the circle as each edge of the hexagon is exactly equal to the radius of the circle which contains it, and can also be taken as symbolizing the six days of Creation, which in itself represents a perfection. This symbolism, Heaven, Earth, Mankind, recurs in slightly varying forms throughout the major religious and philosophical traditions of mankind.

There is evidence from the Pythagorean tradition that in antiquity it was known that the 'mechanical' center of the universe was the sun, but what is of philosophical importance is that this model represents the traditional psychological model and a direct perceptual response to man's actual experience of the universe. In other words, its accuracy in terms of the ascertainable facts from earth are not in doubt. As far as concerned and from the view point of human consciousness and perception, the earth centered solar system and for that matter an Earth centered universe. It adds not only jolt to the beauty of a sunrise or sunset to insist that the description are incorrect in mechanical terms. (Fig 40)

It was the aim of Islamic philosophers, as it was of the Christian medieval philosophers, to make a cosmos, a coherent whole of their own experience or the experience of mankind. In other words to find truths about one's perceived environment which were at once wise, helpful and accurate in considering the human condition. (Fig 41)

## Conclusion

We have seen that the first differentiated area to be described is a triangle; also that the hexagon represents the third 'unity' and second shape. We can now see that the square emerges as a product of our basic pattern. Hexagon and triangle are dual and complimentary, the one co-existing within the other. The square is self reflecting and self dualling as squares emerge from the center of square matrix. These three basic shapes are used to symbolize the square of earth or materiality, the triangle of human consciousness and the hexagon or circle of Heaven. (Fig 42, 43)

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Fig 1. Line from the point



Fig 2. acr from the central point

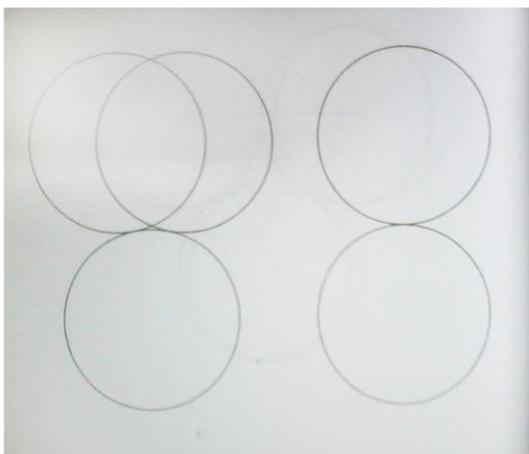


Fig 3. circle of eternity

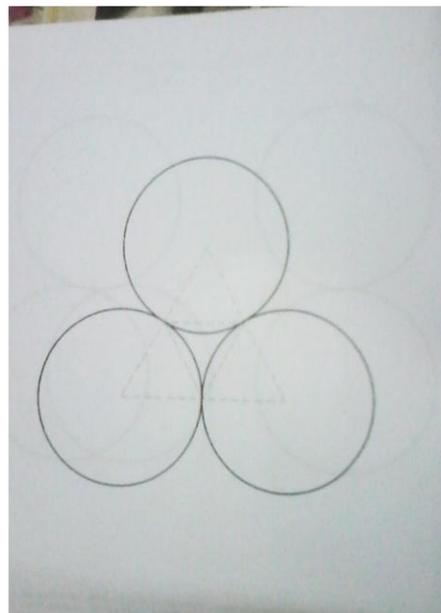


Fig 4. Three circles of eternity

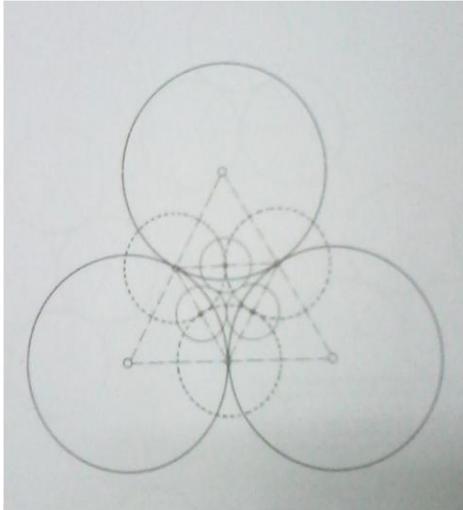
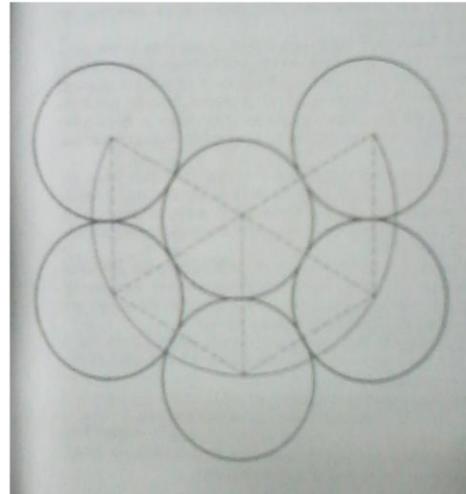


Fig 5. Triangle polygon from the circle.



**Fig 6. The growth pattern of circle with parallel lines**

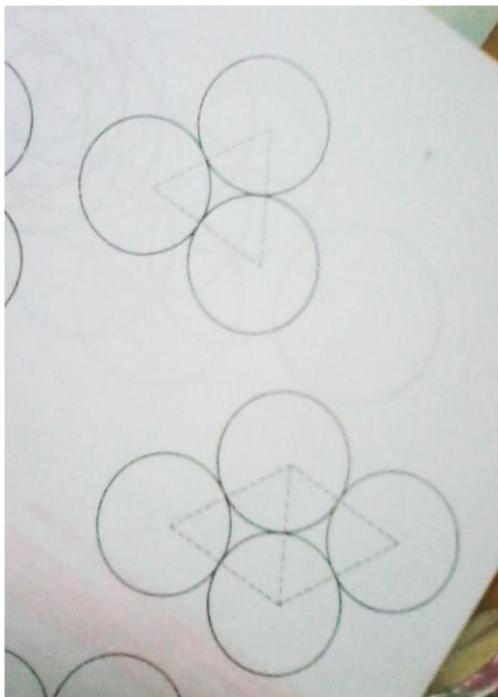


Fig 7. circle of eternity growth one by one, with central polygon

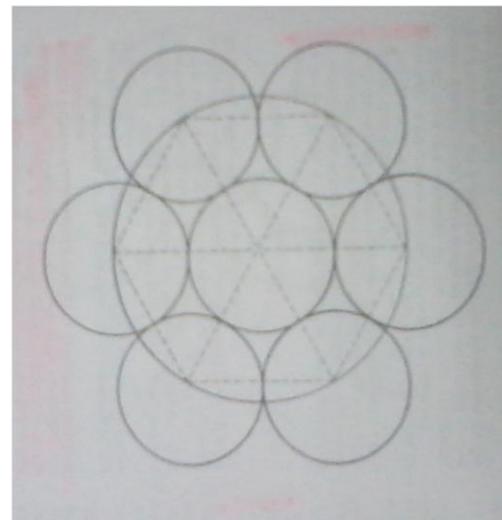


Fig 8. Complete circles of eternity with parallel line

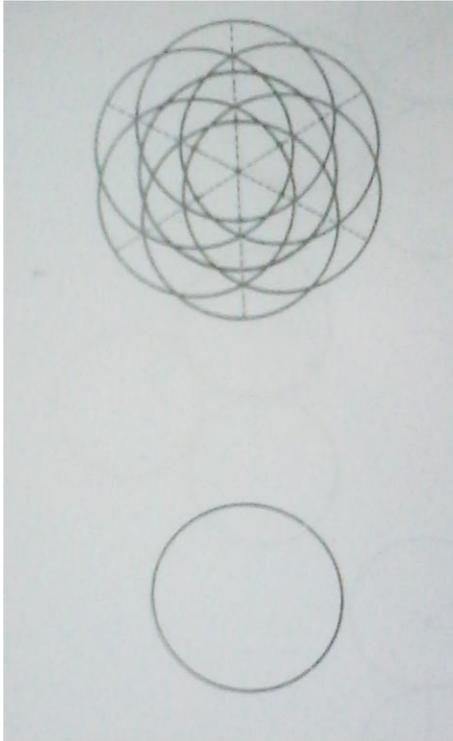
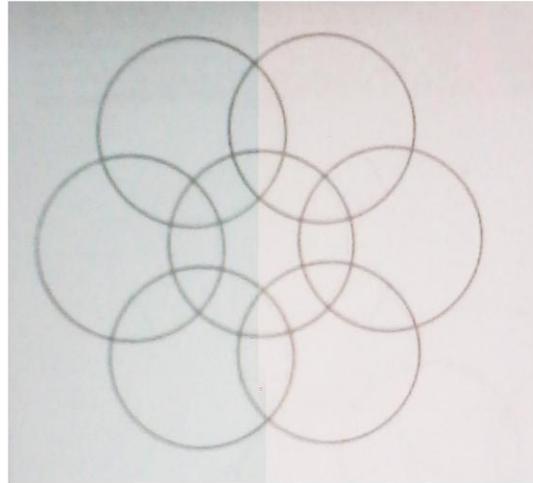


Fig 9. The growth in number of circles from originating center.



**Fig10.** The growth in number of circles from originating center and making polygons, triangles and squares.

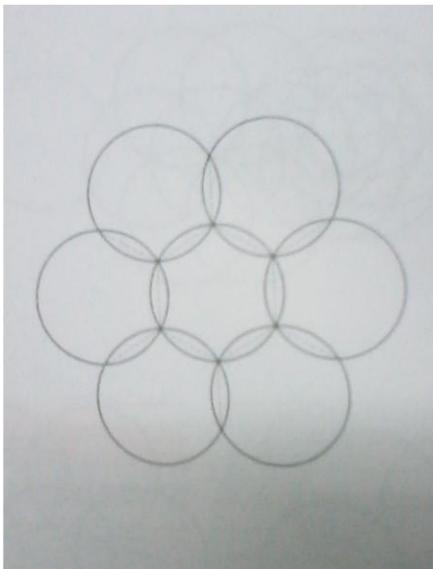


Fig 11. The growth in number of circles from originating center and making polygon

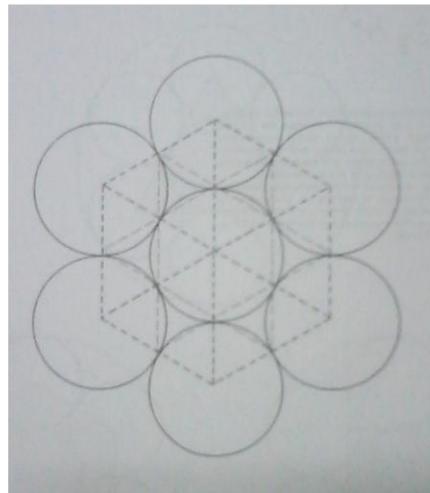


Fig 8. The growth in number of circles from originating center and making polygonal hexagon

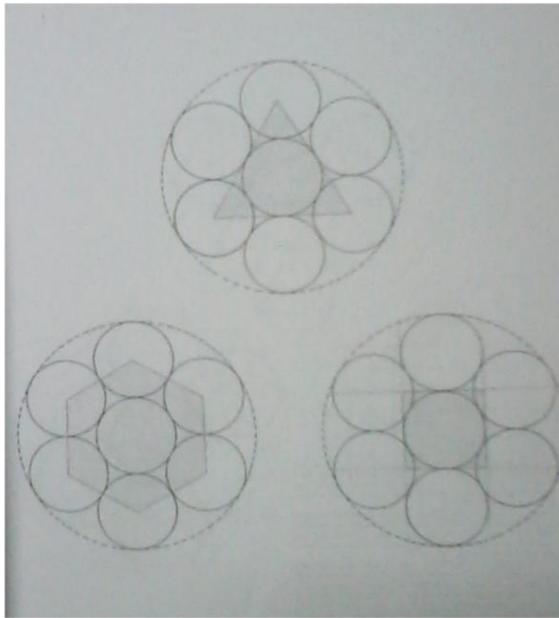


Fig 13. Unity of circles making basic shapes

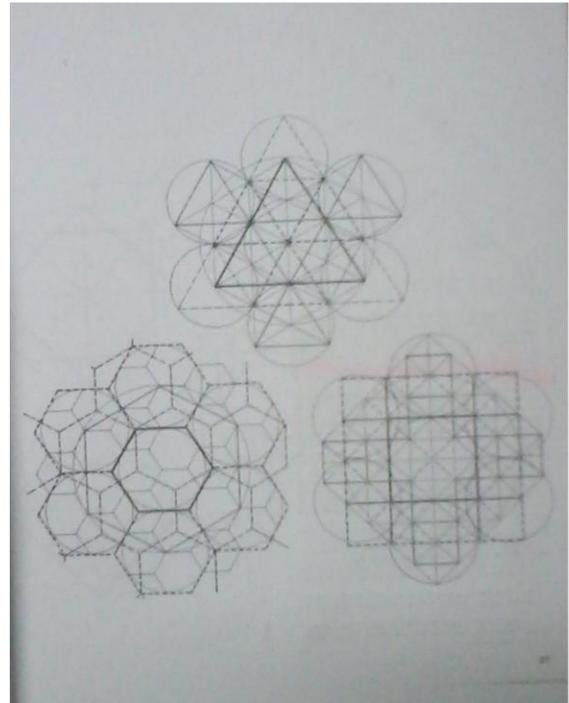


Fig14. Unity of circles making basic shapes and patterns as for tile.

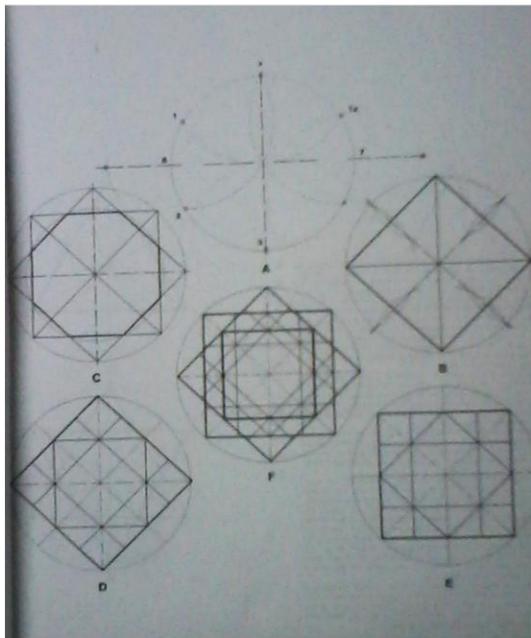


Fig 15 . Square from circle, with different options of pattern making

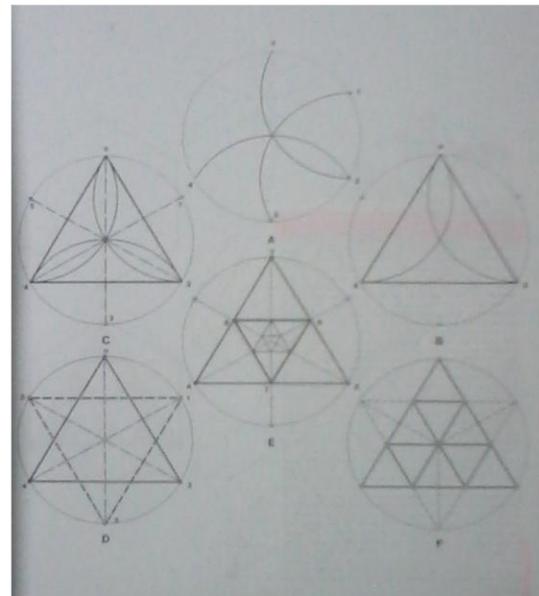


Fig 16. triangles by circles and bifurcate by its own sum.

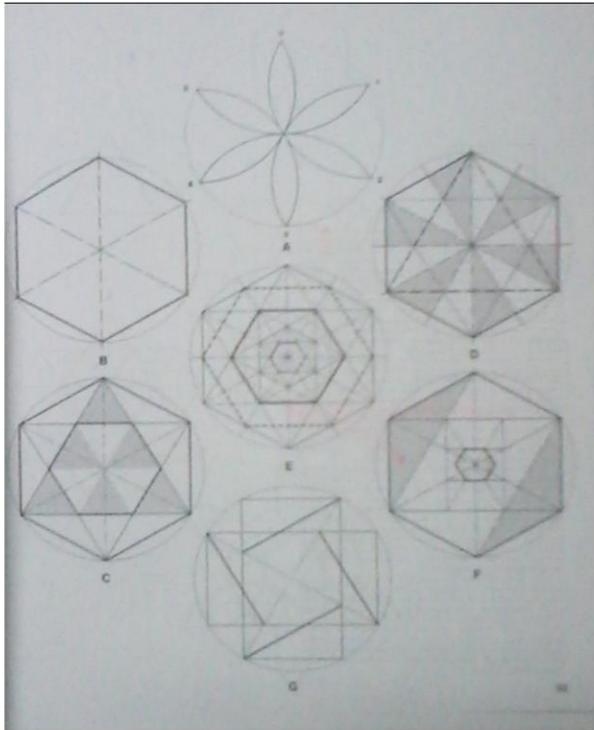


Fig 17. Unity of circles making polygons as penta and hexagon.

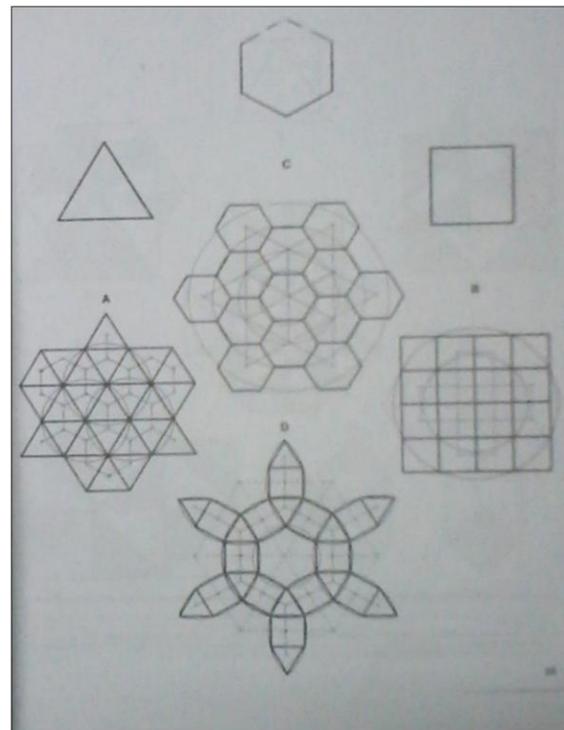


Fig18. Unity of circles making basic shapes and patterns

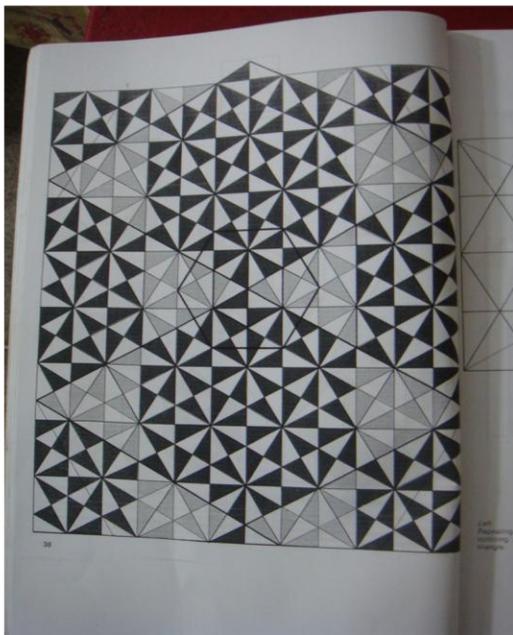


Fig 19 . Repeating grid based on triangular three- fold symmetry

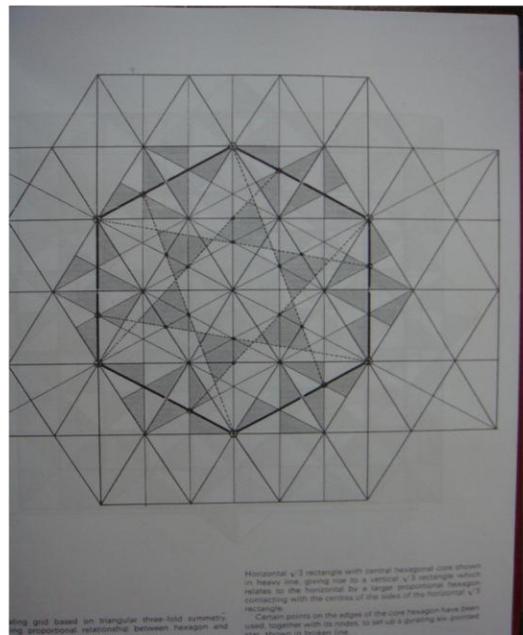


Fig 20. Repeating grid based on triangular three- fold symmetry