THE INTERNATIONAL JOURNAL OF SCIENCE & TECHNOLEDGE

From Geometry-Free & Number-Free Shadowgraphy to Pro-Active Symiosis

Dr. Rojukurthi Sudhakar Rao
Returning Scholar to self-directed Research in Graph Theory & Applied, India

ABSTRACT:
That Mathematics is relentless is widely exposed for it took 358 years to knock out the Fermat's Last Theorem $a^n + b^n = c^n$ *when* $n > 2$ *. His Excellency Andrew Wiles , did solve it admitting that he had a certain marvelous revelation and in a flash found the missing key to an obstruction to conclusively prove that theorem . Does revelation and flash signify time and space , respectively ? This question energises one's mind and reminds us of Albert Einstein . The answer is that revelation and flash do signify time and space , respectively , giving us the absolute result , the end of the Theorem . According to Einstein , time and space are not absolute concepts . They being relative . Signification is material . Here my problem is not Cosmosis but Semiosis till the last in this Paper which the Author discovered as the pro-active Semiosis operating in a hidden manner in everybody with exception for nobody and that's how Mathematics in its various colors-- Geometry, Number Theory, Aritthmatics & Graph Theory, semiotically shining with Mathematicians exemplary .*
This Paper has no public-shy to tell in all its loudest voice that so far Mathematics has ignored 'Shades and Shadows' in their combined form , 'Shadowgraphy ' (coined by the Author) which contributed robustly to emergence of beginnings of mathematical association in Geometry & Number Theory . Having explored so , a dutiful attempt is made enroute to establishing the inklings of Semiosis and Semiologicalisation remained unexpressive in the great minds of Pythagorus & Fermat , centuries apart themselves but ceded as a pair in the tenets of the Number Theory. The research-study with reference-work into the pro-active Semiosis gave an independent result , say Dreamography (coined by the Author) presented in a smooth run-over .

Keywords : *Fermat , Andrew Wiles , Semiologicalisation , Shadowgraphy , Dreamography , Cosmosis , Semiosis*

1. Introduction

1.1. Mathematics and Matter championing the whole Universe
So far as mankind has probed the finitely conquered Earth and a portion of the infinite Space quitely and steadily , the investigations involved confrontations inside and outside of the Matter & Mathematics that jettisoned quietly from time to time. Certainly, there is no threshold like enough is enough for the ever expanding variety of investigations inclusive of infinitary relational ideas between infinitudes of individuals, teams and pools of Scientists. Investigations into the Matter & Mathematics – exciting fusion and fission adventurisms as well as other fascinations offered us thrill and experience (like the nick-named God-particle, of late !) which are always finite but for one thing , i.e., mathematics, which at the very least concerns itself with potential infinity in our divergence-captive civilizations with the convergent- fields of intellectual foundations to get along has enabled further conquer to uplift human limitations to unlimited human capacities . Differences in perspectives throw up a number of ideas usefully introduced by ways and means to tackle in root-depth-analysis and shared by global civilizations alike ! . No wonder , the pre and post-conquer relations and derivatives of relations like products and factors of relations go on and on in non-finite-stop-fashion as Mathematicians & Physicists assert that the whole world is nothing but relations with many crossing points and crossing paths with or without having to return to traverse since human delegations travelled beyond Matter in existence before them with due permissions of Mathematics and Physics without yielding to multiple psycho-isms of emotional perspectives exclusively but possibly paving the adventurous pathways of feasible and flexible edges & terminals to innovate on core structures of Matter & Mathematics championing the whole Universe .

1.2. Mathematical Sciences, Physical Sciences & Tuple Phenomenon
A Study of Graph Theory from the First Theorem of the Finite Sets of crossing points(terminals) & crossing paths (edges) till the Last Theorem of the Infinite Sets of crossing points (terminals) & crossing paths (edges) conforms to the claim made by the author of the Principles of Mathematics , Bertrand Russel in early 1900s that the whole of Mathematics derives from logic besides all of Mathematics can be reduced to set theory of collection of free singleton or individually 'distinctive and resembler' elements commanding truth value with an explicit common relatedness or connection property marked by an orderly, logical, and aesthetically consistent relation within themselves. Auto-sizing their mobilization or letting into fixed sizes

of sets of elements is briefly addressed as a ‘ Tuple ’ written by listing the elements within parentheses ( ) and separated by commas. There exists only one zero tuple for the zero truth value, i.e., an empty sequence and oppositely , the non-empty n-tuple is an ordered list of n elements existing as an **o**rdered n-tuple. The set theory opened up the underlying flood gates to unary relations (Sets) and binary relations (ordered pairs of two elements e.g., adjacency of terminals & edges in Graph Theory as opposed to the free singletons). This much all said and done finitely and infinitely to Mathematics’s vantage . This is followed by Physicists under the stewardship of Albert Einstein from the very beginning of his entry to the hall of fame in Physics proclaiming that with all of its structural designs and curvaceousness of constituents it is composed of , i.e., the Matter , by its physical relations and physical forces also points to binary relations . Therefore, the Sets and binary relations held leverage to the mathematical and physical sciences which stand for validation of all of the Matter & Mathematics’s mutual underlying science of relations over and above the skillful net-work Graphs leading the cause of the whole Universe taciturnly .

1.3. Science of Relation (Mathematics) -- not Physics

It takes logic , of course , in above sequence of the relations tool kit, say after unary and binary formulations , a very just mention of the trinary / ternary as the extra one relation so much so to delegate qualitative importance to study trinary relations. Cleverly and directly put , the trinary relation has been founded on the plank of a relation explained as triplets or triples of threesome items which are an ordered triple or 3-tuple with the pre-requisite of at least one relation eloquently called trinary (the number of places in relation is three with adjectives 3-adic, 3-ary, 3-dimensional, or 3-place used to name these relations) .The trinary relation stepped in as “ relation (mathematics) ” - not Physics to address trinary relations and is product of binary relations on relational factorization with the products as relational products of the relation . The distinction between binary & trinary relations implies mathematics of trinary relation theory. Trinary and further relations can be unary(sets) , binary and trinary relational products . Trinary relation to an n-ary relation is just like the already made generalization of ordered tuple to an ordered n –tuple and is regarded as the Science of relations which is known by the famous theorem of the American mathematician , Charles Sanders Peirce (uttered as ‘ purse’, lived during 1839-1914) regarded as the Father of Pragmatism with the implication of the one World as unary, the Nature –Universe as the binary and the Earth -Sky-Space as trinary and simulated for a set , the binary and the trinary relations, respectively , indebted to the intellectual foundations of mathematical as well as physical sciences .Yet, Charles Peirce had a concept of relations altogether different from the set of ordered n-tuples & n-ary relations , elaborated to look like a game with signs or symbols rather than a science in that a trinary relation, called a 'sign', is the implication essentially in the notion of representation. Thus evolved the theory of signs .

1.4. Representation , Signs or Symbols -- Imploration & Exploration of Basics to Semiosis

In his logic of relations cited above , Charles Peirce admits representation as any essential trinary relation and representation becomes solution to all the trinary sciences which contribute to an understanding of cognition per se . The ability to represent objects and events is important for development of any system of cognition for the acquisition of knowledge and experience . Representation is the expression by something which serves as a sign or symbol for something else- the process of standing for something else when defined as a conveyor belt which stands for something else to or for someone . According to Peirce, the Universe is an ongoing perfusion of signs or 3-adic relations among objects, signs, and interpretants called a sign relation . To be sure , our World is a semiotic world through and through . It is a World chiefly of signs . In other words , signs of the real and the non-real are equally real signs and hence they can be as real or as non-real as either the real or the non-real itself . Semiosis properly conceived is nonlinguicentric .

The education of signs in relation to the things that signs are noteworthy of and in relation to the dead and surviving as well as the destructive and constructive that signs are noteworthy for is known as theory of signs entitled as ‘Semiotics’ .

Some of you –aged readers might be aware of the rapid reporting by means of ‘signs or symbols system ‘ called the professional short-hand education and so does the ‘ Semiotics’ prevail to the treat of a 3-place relation among the signs with pertinent objects and interpreters. In an understandable impression , just like the Osmosis equalizing the conditions on both sides of the membrane , Semiosis is to sign-relation among objects , signs and interpretants emphasizing the most salient patterns of relationship among these three roles. In a nutshell , Semiosis refers to any activity or process that involves signs .

Studies of semiosis that deal with its more abstract form are not concerned with every concrete detail of the entities that act as signs, as objects or as agents of semiosis, In particular, the formal theory of signs does not consider all of the properties of the interpretive agent but only the more striking features of the impressions that signs make on a representative interpreter. In its formal aspects that impact or influence may be treated as just another sign, called the interpretant sign, or the interpretant for short.

2. Original Research Phases

2.1. Phase One

<u>2.1.1. Shadowgraphy</u>

From the white Sun-Light to the blackish Shadows or Shadowgraphy to the colourful Semiosis

It requires no introduction that the Sun-planet is the resourceful producer of the so-called eighth white colored sun-light supplied down to us on the Earth –planet , which in turn is a mixture of seven individualistic colors in the set-defined mathematical order of ‘Vibgyor’ -- violet , indigo , blue , green , yellow, orange and red . In the sense of Chemistry , the white light is not a compound but a mixture without chemical combination so that literally one can call it a composite color of the ‘ vibgiyor ‘ focused to colouring the Earth into a whitish-outpit by the Sun’s ‘vibgyor –inpit ’ .

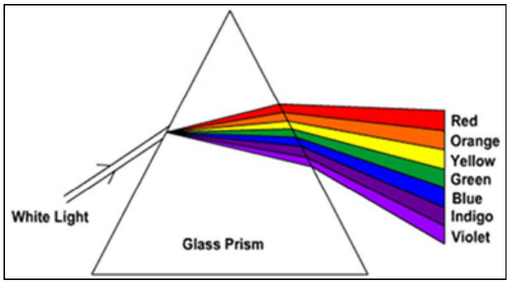


Figure 1

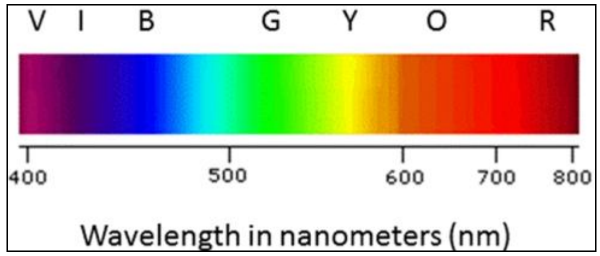
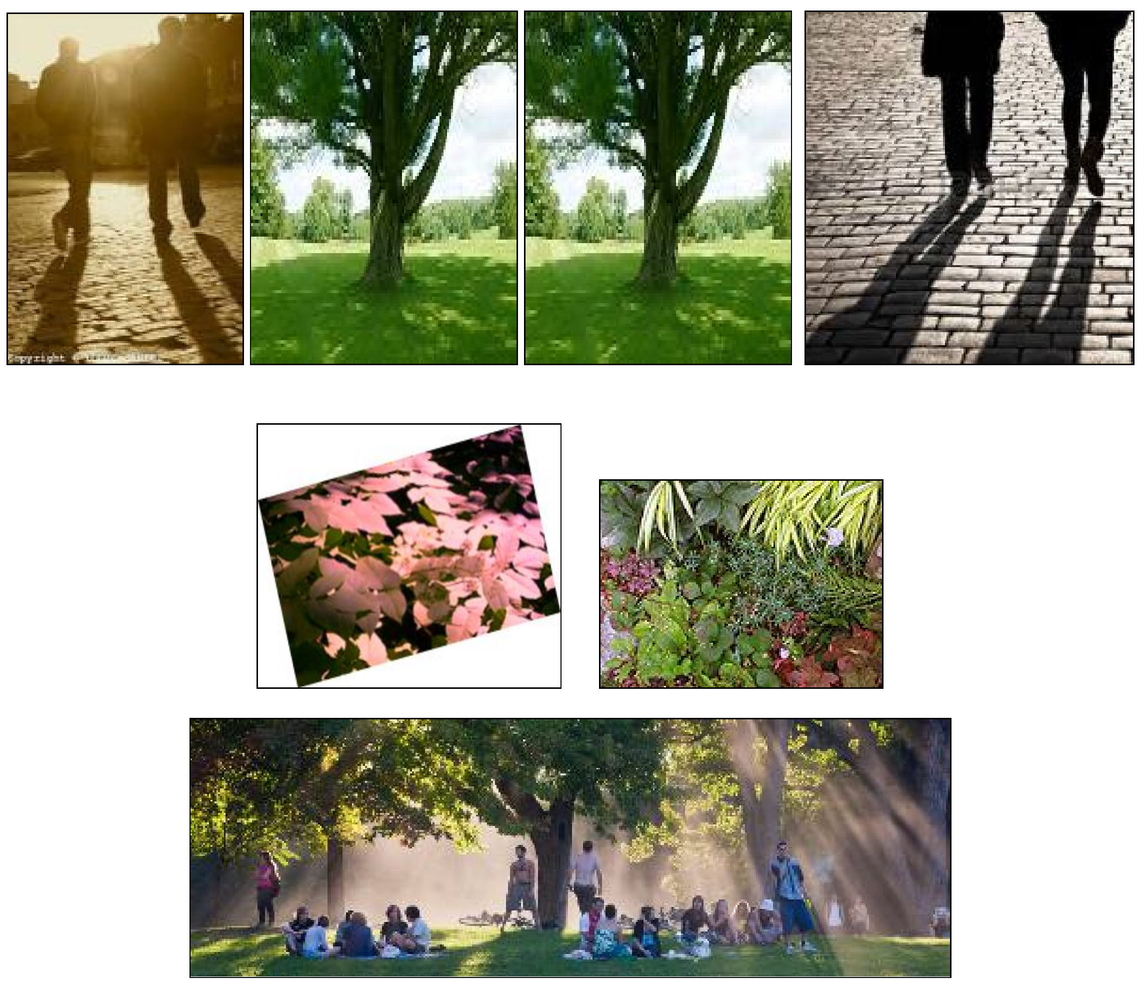


Figure 2

The sunlight when confronted by the opaque matter bends and travels further dispersing itself all over possible non-opaque bodies and regions . In the process , blackish shadows of objects are formed on account of blocked sunlight which we call cool shades of trees , hills, mountains, buildings , bridges, statutes, forts , pyramids , high rocks , sky-scrappers , etc., etc ., In other words , shade is the blocking of sunlight, say direct sunshine by any object, and also the shadow created by that object. Shade(shadow) also consists of the colors grey, black, white, etc., due to blocking of sunlight by a roofs, an umbrella, a window-shade or blind, curtains or other objects. Shades provide cooling and shelter from the sun . In the public gardens , there are various types of shade such as full sun - more than five hours of direct sun per day , part shade - two to five hours of direct sun, or all-day dappled sun -sunlight shining through open trees and the full shade - less than two hours of direct sun per day .



Figures 3: leaves, plants, persons in shade.

Thus , the shades are representative of the shadows which in turn are signs of the opaque-objects interpreting blockade of the sunlight . The whole context is amenable to the definition of semiosis explained above calling it colourful semiosis implying objects with their signs or symbols relation expressed by representative interpreters. The shadows or shades are free from ' Geometry and Numbers' value- influence in their manifestation on the surfaces of the Earth . Or, their formation is concomitant wherever possible whenever any lighting source (artificial like the electric lights or natural like the sunlight or moonlight) operates (but due to impermeability in the passage of light, rays gets intercepted causing shades or shadows) . For all practical purposes , human beings treat the shades or shadows insignificant and ignore unless otherwise stated . An additional fact is shade and shadow awareness. Shadows imply partial darkness or something less bright than the sorroundings .Shade indicates the lesser brightness and heat of an area where the direct rays of light do not fall as for example , the shade of a tree . It differs from shadow in that it imples no particular form or definite limit , whereas shadow often refers to the form or outline of the object that intercepts the light .

2.2. Phase Two

Evidence of Mathematical Beginnings

Evidence of 'Sign & Symbol ' relation-knowledge with Pythagorus, the Greek visionary Mathematician in the early 535 BC.

An illustration to the above effect is carefully collected and presented in this paper . The first and foremost cogitative theoretical and practical interpretation engaging in reflective thought on sign-relation evidence was traced back to the all-time-great Pythagorus of Samos . Certainly , credit of this achievement owes a great deal of debt to the Greek Mathematician because the experimental psychology of our times teaches us not to reject, in a body, facts which fall within human possibility, but rather to investigate them from the point of view of well-ascertained research-enabled –potential .

Pythagorus (c.560-c.480 B.C.) was known as the first pure mathematician undoubtedly . I would say , he came up at that time with the idea of a nascent speculative semiotician even centuries before the word Semiosis was coined in the 20th Century by mathematicians like Peirce (an American) and Ferdinand de Saussure (a swiss) who developed mathematically semiosis or sign-relation- theory .

Pythagoras quest for knowledge is legendary. At that time , the major sources of knowledge were the local Ionian temples. It is generally accepted that Pythagoras was a student of Thales of Miletus and the Temple of Memphis in Egypt .

Figure 4

Pythagoras left Samos for Egypt in about 535 B.C. to study with the priests in the temples . Egyptian temples had long been regarded as possessing the richest of all knowledge that man possessed in his pursuit, in particular the higher degrees of the Temple of Memphis . There was, of course, the oath of silence of not to reveal the Temple's secrets. Divination has really been known and practiced in temples of old but fixed principles. Legend has it that it was in Egypt that Pythagoras developed his understanding of the properties of right triangles and proportions. This revelation came to him as he sat on the Temple grounds contemplating its surroundings, and discovering that objects in the sunlight cast shadows that are proportional to their actual height. The objects, a tree, an obelisk, a statue, standing perpendicular to the earth, formed right triangles; the object being the vertical side, the shadow being the horizontal side, and the sun's rays forming the hypotenuse. Pythagoras comprehended well while contemplating the inner secrets and oath of secrecy in discovering the concept that the sides of one right triangle are proportional to corresponding sides of another right triangle. Thus, the Pythagorean Theorem is a cornerstone of mathematics, and continues to be so interesting to present-day mathematicians that there are more than 400 different proofs of the theorem but not a single one of these proofs has cited a just reference to the Semiosis-based or ' sign-of-shade' origins of his theorem , i.e., the original hypotenuse that ran across his thoughtful and watchful mind-mapping brain noticed and observed by him was nothing but a ' sunrays-formed- shadow –hypotenuse' which was semiotical indeed as we call it now-a-days meaning the study of signs and symbols , especially the relations between written or spoken signs with their referents in the physical world or the world of ideas . As the discipline of semiotics has taught us , visual semiotics are not limited to the human race and signs are made every where . Pythagorus taught that the real World is triple as well as the Name , Number and Sign for God , i.e Father/ Creator , Unity containing infinite and the living Fire , respectively while the triad or ternary law is accordingly the constitutive life of things and the real key to life , the cornerstone of esoteric science which Pythagorus made the foundation of his system . He pronounced that the living Fire is the Symbol of the spirit dividing the Universe into three concentric spheres – the natural , the human and the divine World . It is in the Pythagorean tradition that we see the signs and symbols explained as philosophic mysteries then but currently disclosed as mathematical semiosis . Pythagorus did apply his intellect , especially his mathematical parallelism to the mystery traditions of his own days limited and restricted to the temple precincts . He became the founder of

Greek Philosophy combined with his mathematical wisdom . When he visited our country , India , he was awarded the title of Yavanacharya by the then priests of philosophy and mathematics known as the set of Indian Brahmins.

2.3. Phase Three

The Science of Arithmatics & Symbolism of Numerals .

Arithmatics was indeed directed by Pythagorus as true master who first brought with him out of Egypt the use or application of Numbers as Symbols in Symbolism although different teachers handled them variously in those days of 535 BC , changing their names doing in reality nothing more not knowing which way to proceed with numbers in several kinds of varieties of matters . The so-called ‘ Pythagorean Numerals’ of unknown antiquity are said to be preserved by Manlius Boethius , a Senator & Consul in 510 BC , the last of the Romans in the Western Roman Empire as per his treatise on Arithmatic , which were the true basis of the Arabic numerals , 1,2,5,7,9. 0, and shaped to like an inverted form of each of 1,2,5,7,9. 0 . Pythagorus expressed that all things are numbers. Numbers have personalities, characteristics, strengths and weaknesses while certain symbolic numbers and numerical signs have a mystical significance .

2.4. Phase Four

Geometry , Numbers and Arithmatics : A Triadic Reciprocal Causation .

With Pythagorus’s Monad (the Almighty) ,Dyad (His generative & reproductive faculty) and Triad (World , Time & Space) which are known to be Doctrines of Pythagorus , the transformation of philosophic mysteries into highest principles of education began . The ternary law or the triad understood by and meant for only a select few led to the emergence of scientific and mathematical proofs as the new initiatives of those critical times of reciprocal determinism within the then civilizations .

Pythagorean thought was dominated by mathematics, but it was also profoundly mystical. Pythagoras reached the acme of perfection in arithmetic and the other mathematical sciences learnt from the Babylonians. Mathematics is the basis for everything and the interactions of opposites, such as positive and negative , lightness and darkness, warm and cold, dry and moist, light and heavy, fast and slow are taken cognizance of which the physical world is made up of and can be understood through mathematics..

The discovery of irrational numbers is attributed to the Pythagoreans, but seems unlikely to have been the idea of Pythagoras because it does not align with his philosophy the all things are numbers, since number to him meant the ratio of two whole numbers. Pythagoras also related music to mathematics. He had long played the seven string lyre, and learned how harmonious the vibrating strings sounded when the lengths of the strings were proportional to whole numbers, such as 2:1, 3:2, 4:3. Pythagoreans also realized that this knowledge could be applied to other musical instruments . Pythagoras studied odd and even numbers, triangular numbers, and perfect numbers . He is known as the Father of Numbers ! Incidentally , theories of natural numbers are alone known as arithmetic .

Geometry is the highest form of mathematical studies. Pythagoreans contributed to our understanding of angles, triangles, areas, proportion, polygons, and polyhedra. The sum of the angles of a triangle is equal to two right angles.The theorem of Pythagoras for a right-angled triangle that the square on the hypotenuse is equal to the sum of the squares on the other two sides is famous even today . The Babylonians understood this 1000 years earlier but Pythagoras only proved it . Right angles have various practical applications, such as surveying, carpentry, masonry and construction while the hypotenuse is useful to measure height, distance and rate of change of velocity . Constructing figures of a given area and geometrical algebra. For example they solved various equations by

geometrical means.The five regular solids (tetrahedron, cube, octahedron, icosahedron, dodecahedron). are believed to be known to Pythagoras and he himself constructed the first three but not last two.

Phase Five :--- Semiologicalization

Conjectural Semiologicalization in the Geometrical Numerical Association (GNA) from 6th Century to 20th Century has helped Pythagoras’s First & Fermat’s Last Theorems and their association in inculcated modern Semiosis . Pythagorus’s First Application of Geometrical Numerical Association (P-FAGNA) is Fermat’s Last Application of Geometrical-Numerical Association (F-LAGNA) .

The customary curiosity in Pythagorean triples is connected with the Pythagorean geometrical theorem in its converse form that a triangle with sides of lengths a, b, and c has a right angle between the a and b legs when the numbers are a Pythagorean triple. Simply put , a right triangle whose sides form a Pythagorean triple is called a Pythagorean triangle. The name of Pythagoras was selected for this theorem because Pythagoras was the first to prove the theorem . Pythagorean Theorem and Pythagrean Triples are related in the GNA which is interpretatively a Semiologicalisation . Pythagorean theorem & Pythagorean triples had been in use for centuries .

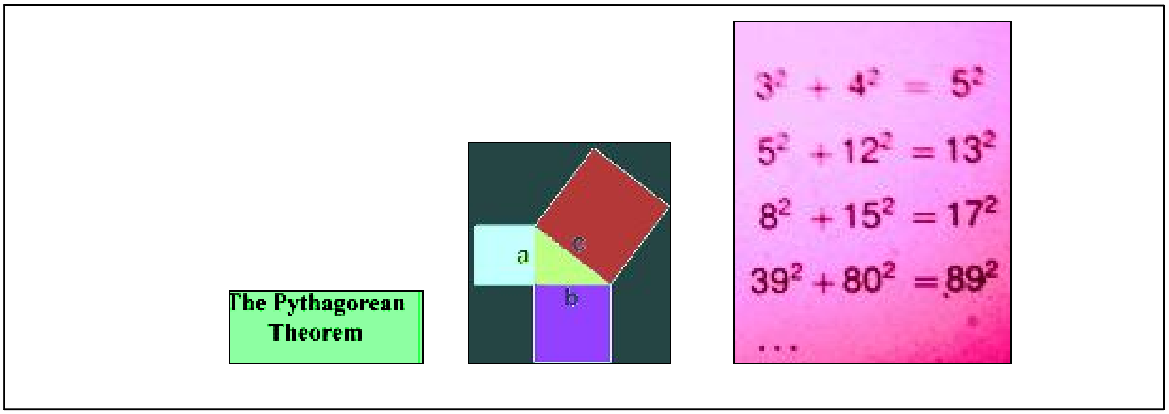


Figure 5

C is the hypotenuse while **a** and **b** are the legs of the triangle. The theorem as an algebraic equation relating the lengths of the sides *a*, *b* and *c*, often called the Pythagorean equation : $a^2 + b^2 = c^2$

Pythagoras came up with mathematical theorem that bears his name: that, in a right triangle, when the areas of the squares erected on the two smaller sides were added together, they equalled the area of the square erected on the longest side, the side opposite the right angle (the hypotenuse). It is important to note that the Greeks originally stated this theorem in terms of geometric objects instead of numbers.

A Pythagorean triple named for the ancient Greek Pythagorus is a set of three positive integers (a,b,c) such that it represents the lengths of the sides of a right triangle where all three sides have integer lengths.

$a^2 + b^2 = c^2$ --------------------------→ P- FAGNA--------->>>> proved in 6th Century BC

Examples of Pythagorean triples include (3, 4, 5) and (5, 12, 13). There are infinitely many such triples and methods for generating such triples have been studied in many cultures beginning with the Babylonians and later ancient Greek, Chinese, and Indian mathematicians . Here is a list of primitive Pythagorean triples with values less than

P 10

100: (3, 4, 5), (5, 12, 13), (7, 24, 25), (8, 15, 17), (9, 40, 41), (11, 60, 61), (12, 35, 37), (13, 84, 85), (16, 63, 65), (20, 21, 29), (28, 45, 53), (33, 56, 65), (36, 77, 85), (39, 80, 89), (48, 55, 73), (65, 72, 97) .

Below one can glance the proactive graphs for the Pythagorean Triples visualization .In the Green graph , Pythagorean points (a,b) :a^2+b^2=c^2 (a,b,c, integers) in reddish dots & other points (a,b) more or less green depending on how far c is from an integer besides seeing curved traces between neighbours , In the bluish graph , one can see Pythagorean points (a,b):a^2+b^2=c^2 (a,b,c , integers) in blackish dots & other points (a,b) more or less bluish depending on how far c is from an integer besides seeing white hyperbolas connecting Pythagorean points .

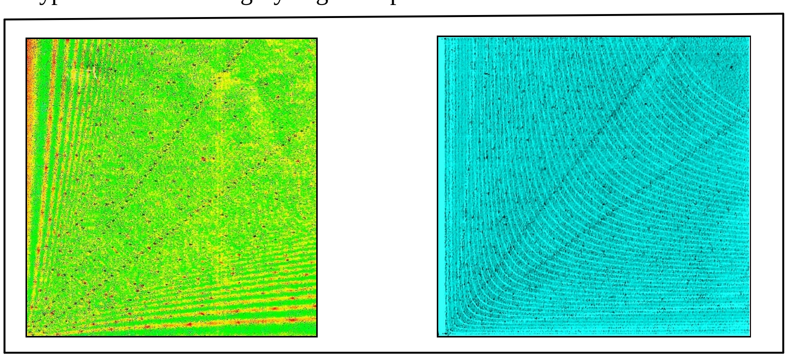


Figure 6

In a general way, the doctrine that mathematics contains the key to all philosophical knowledge, a germ, so to speak, which was afterwards developed into an elaborate number-theory by Pythagoras's followers. Wherever and whenever arises a mention of Pythagorean integer triples , there comes in inevitably a mention of the name of Fermat and his theorem called Fermat's Last Theorem .Hence paired , Pythagoras's First & Fermat's Last.

Figure 7: Fermat

As against the above adequate equality, the later century's Pierre de Fermat felt the inadequacy in raising power to lower level 2 and why not for subsequent highers, say 3 and 4 ? In Number Theory, advertized as the

Fermat's Last Theorem in the 17^{th} Century AD, it states that no three positive integers *a*, *b*, and *c* can satisfy similar equation such as the Pythagorus Triples for any integer value of *n* greater than 2 .

$a^n + b^n = c^n$ -----------------------------→ F- LAGNA ------------>>> proved in 20^{th} Century AD

Fermat's Last Theorem is an extension of his own meditated theme on higher powers because he was more of a Judge by his legal profession and less of a DNA-type Mathematician who had stated that no solution exists when the exponent 2 is replaced by any larger integer or specific exponents , given the mathematical knowledge of his time that satisfy a special case of Fermat's equation (n = 2) shown above . In other words , If n > 2 then $a^n + b^n = c^n$ has no whole number solutions . However , the following tabulation chronologically arranged to project the research-results in this regard achieved by faculty-mathematicians during 17^{th} -20^{th} centuries

3. Tabulation

Chronologically Exponential Path-finders for Fermat's Last Theorem

Exponent	Exponent Mathematician	Year
4	Fermat	~ 1640
3	Euler	1753
5	Legendre	1825
7	Lamé	1839
<37	Kummer	1847
<100	Kummer	1857
<125,000	Wagstaff	1978
<4,000,000	Buhler et al.	1993
' n '	Andrew Wiles	1995

Ultimately, the Fermat's Last Theorem has been proved in the year of 1995 by a British mathematician , Andrew Wiles with the help of studies in elliptic curves (Geometry) and their modularity forms , with key link between traditions in Number Theory as can be seen below through my digital video supported

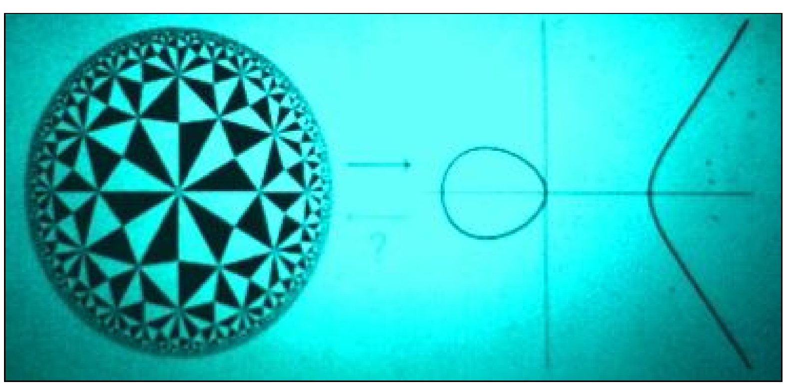


Figure 8: Cusp form & Elliptic Curve

proactive graph explaining that if an elliptic curve comes from a cusp form , it is then modular as well as every cusp form gives rise to an elliptic curve . It is notable that a modular form is a function on the unit disk as seen above that has exceptional symmetries while a cusp form is a modular form which is zero at certain boundary points or cusps .There are, thus , semiological

connections among all the different branches of Mathematics as the title of this Paper's work frames Geometry-free & Number-free Shadowgraphy to Proactive Semiosis .
Phase Six : 20th Century onwards proactive- Semiosis Applications Elaborated .
Leibniz , the German Mathematician known to be the modern thinker , defined Mathematics as the Science of Relations in the 17th century when his was ontology specialization in those days of early modern period of Europe characterized by the the Scientific Revolution.

Figure 9: Gottfried Leibnitz

The area of study is to a certain extent an investigation into notation of the past. Notation is a host of symbols invented by over the past several centuries including the Hindu-Arabic numerals , letters from the Roman, Greek, Hebrew and German alphabets to write equations and formulas while generally implying a set of well-defined representations of quantities and symbols operators. Commencement, progress, and cultural diffusion of symbols and the conflict the methods of notation confronted in a notation's move to popularity or inconspicuousness are studyworthy . **Semiosis** is any form of activity, conduct, or process that involves signs including the production of meaning . Simply , it is sign process. The term was introduced by Charles Sanders Peirce (1839–1914) to describe a process
that interprets signs as referring to their objects, as described in his theory of sign relations or semiotics for study of signs and study of conventional symbols used to denote objects .

4. Semiology

Other theories of sign processes are built-up under the heading of semiology following work of Ferdinand de Saussure (1857–1913).The term was introduced by Ferdinand de Saussure. . Semiology would be a science that shows what causes signs (words-concepts) to emerge.
. The study of signs and sign-using behaviour, especially in language are significant. Today, this is habitually referred to as the semiotics. Semiotics, also called semiotic studies and in the Saussurean tradition called semiology covering the study of signs and sign processes by indication, designation ,likeness, analogy, metaphor, symbolism, signification, and communication. Semiotics is closely related to the field of linguistics, which, for its part, studies the structure and meaning of language more specifically. However, as different from linguistics, semiotics also studies non-linguistic sign systems. Semiotics is divided into branches namely,Semantics (Relation between signs and the things to which they refer; their *denotata*, or meaning) ,Syntactics: (Relations among signs in formal
structures) & Pragmatics (Relation between signs and sign-using agents)

Figure 10: Peirce

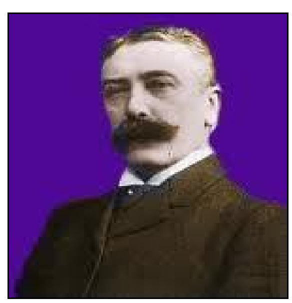


Figure 11: Saussure

In the late 19th and early 20th century , the work of Ferdinand de SAUSSURE and Charles Sanders PEIRCE led to the emergence of semiotics as a method for examining phenomena in different fields, including aesthetics, anthropology, communications, psychology, biology and semantics. Interest in the structure behind the use of particular signs are also studied wherein links between structuralism and semiotics existed . Saussure's theories are also fundamental forcing us to know that without language , thought is vague ! These are indicators and pointed toward structuralism and post-scenario . Key figures in semiotics are Charles Sanders Pierce, Roland Barthes, and Julia Krestiva. Levi-Strauss and Jacques Lacan also concerned with semiotics.
Modern semiotic theory is also associated with Marxism just as Mathematics's association with expressions of Democracy and Geography as the modern contemporary scientific concepts of the physical World .This is dynamic activism in so far as the modern society with modern industry has become fundamental as we move forward in our belief that current generations ascend to handover to the future generations who will be biological descendents .

5. Phase Seven & Conclusion

Deamography coined and innovated merit of this Paper .

A new concept of Dreamography is brought in by the author having gone through the relatedness signs of geometry-free and number-free shadowgraphy influencing to prove the primitive geometrical and number theory

association complexities originally surfaced and sighted in the like- minds of the great Pythagoras & Fermat who might have gone through the ordeal of mathematical semiosis as if they were dream-machines with mathematically mechanized-brains.with triadic properties of time, space and semiologicalisation faculty . For instance , Fermat's Last Theorem which is 358 years old has been knocked out by the British mathematician Andrew Wiles in 1995 saying that that was possible because he had a certain sudden marvelous revelation and saw in a flash unexpectedly finding the missing key to his old abandoned approach when he decided to take one last look at his own attempt to generalize in order to formulate more precisely a particular obstruction in his solution . In fact , the revelation and the flash are mental activity , uaually in the form of an imagined series of events ,occurring during certain phases called 'outside of dream ' and ' inside of dream ' and ' involuntary' in existence proved by their suddenness as mentioned by Andrew Wiles .

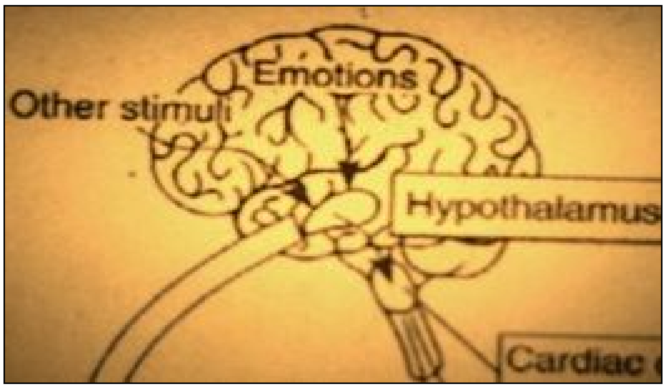


Figure 12

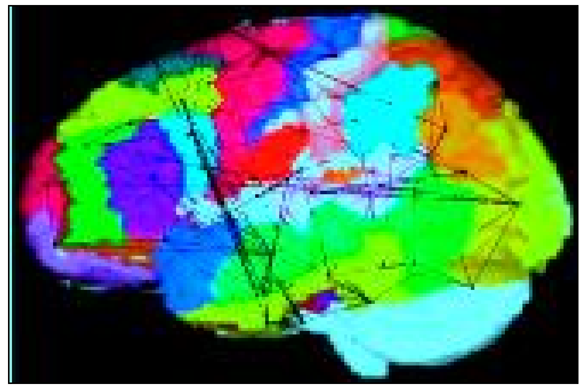


Figure 13

By Dreamography , it is meant that a series of images, ideas, emotions and sensations occurring involuntarily in the mind during certain stages of sleep or rest . Examples galore. Common individual personal biliefs and popular societal views are strong and many with the most remarkable are recorded and frequently made use of making necessary communications for internal and external interests among ideological groups in their aspirations and ideals. Also, Dreamography are successions of a related content and purpose of visualizations of event signals and object-relationships akin to semiosis. That is why , dreamography are sometimes definitively understood and sometimes not understood as well as sometimes easily remembered and sometimes easily forgotten . However , Dreamography became a subject of scientific speculation and a topic of philosophical and religious interest in recorded interest . More specifically , scientific study of Dreamography in conjunction with study of connected brains , brain dissections and functions are yet to make rapid strides . Having to live in a connected world , all sorts of complex systems we encounter in the Universe ranging from interacting molecules , genes to neurons , humans , extra-terrestrial phenomenon , divergence-captive social elements, lawfulness and the ordered cults which are responsible links to the semiosis-networks resulting into creative Dreamography because life and living are action of Signs as made out in knowledge of Semioses. Therefore , Dreamography emerges from a semiotic perspective !

6. References

1. George J.Kertz. (1979). The Nature and Application of Mathematics . Goodyear Publishing Company , Inc. Santa Monica , California , 90401
2. John Clark & Holton . (1991). A First Look At Graph Theory . World Scientific Publishing Co.Pte.Ltd. , Singapore 9128.
3. Prof.T.L. Tiwari & Prof. B.R.Rairikar. (2004) . Research Methodology. Published by the Director, Institute of Distance Education , University of Mumbai .
4. John –Tagore Tevet .(2002). Semiotic Modelling of the Graphs. University of the Euroacademy ,Tallin http://www.graphs.ee/Arslonga1.pdf
5. Bernard H.Springett. (2006). Secret Sects of Syria and the Lebanon . Published by Kegan Paul Limited , New York , USA .www.globalgrey.co.uk/...Secret.../Secret-Sects-Of-Syria-And-The-Leban..
6. R.J.Rummel . (1975) . VOL 1. The Dynamic Psychological Field . The Sage Publications , Beverly Hills , California , America. https://www.hawaii.edu/powerkills/NOTE10.HTM
7. Chandler, Daniel . (1994) . Semiotics for Beginners [WWW DOCUMENT]. Library of Congress P99 ; Dewey 404 . http://www.aber.ac.uk/media/Documents/S4B
8. Joseph A. Montagna (1984) . Greek Civilization Vol II . Yale-New Haven Teachers Institute. Published by Yale –New Haven Teachers Institute, Chicago , USA .
9. Andrew Wiles . (1995) . Modular Elliptic Curves & Fermat's Last Theorem. Annals of Mathematics , Princeton University , Princeton , NJ , America. http://www.math.ias.edu/~anindya/fermat. pdf .
10. Karl Rubin .(2007) . The Solving of Fermat's Last Theorem . www.math.uci.edu/~krubin/lectures/psbreakfast.pdf