

NATURAL ARCHITECTURE

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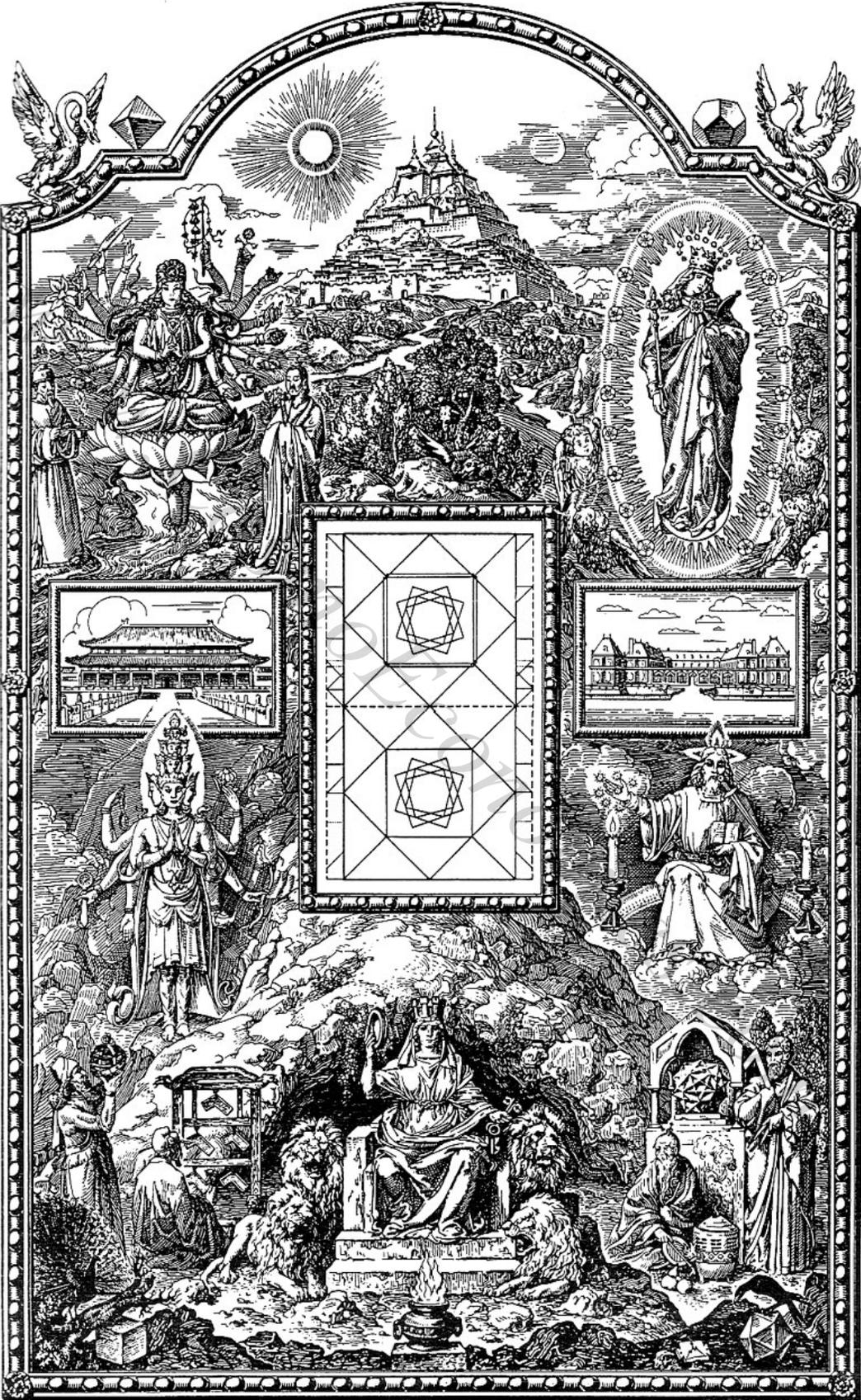
A REPORT BY PETRUS TALEMARIANUS ON THE
ESTABLISHMENT OF A "GOLDEN RULE,"
ACCORDING TO THE PRINCIPLES OF TANTRISM,
TAOISM, PYTHAGOREANISM, AND THE KABALA,
SERVING TO FULFILL THE LAWS OF UNIVERSAL
HARMONY AND CONTRIBUTING TO THE
ACCOMPLISHMENT OF THE
GREAT WORK



Illustrations by

MARCEL NICAUD

NATURAL ARCHITECTURE



NATURAL ARCHITECTURE

TRANSLATION SOCIETY PREFACE

After a number of unforeseen delays, we are very happy to, at long last, be releasing this second book in the Sacred Science Translation Society series, *Natural Architecture*, by Petrus Talemarianus. This fascinating and mysterious treatise is sure to tantalize the imagination and provoke the deepest contemplation of every serious esoteric scholar. The complex text and fascinating diagrams contained in this work present insights into the tradition of esoteric cosmology of an originality rarely seen in other works on the subject.

Paralleling the mysterious and magical nature of this work, with its unknown and undefined origins, was a strange synchronicity, which I will share for the entertainment of the reader. In June of 2006, I met up with Ariel and Joscelyn Godwin at the conference of the Association for the Study of Esotericism, at UC Davis, in Sacramento. At this conference, Joscelyn made a presentation of his research into the possible authorship of this treatise, tracking the origins of its ideas through a number of famous scholars and esotericists, such as René Hoëné Wronski, Francis Warrain, and René Guénon. Through further research, described below in the Preface to the English Translation, Joscelyn ultimately arrived at a possible, but unconfirmed, author of this work, from a distinguished French family, named Pierre Bordeaux-Montrieux. The Bordeaux-Montrieux family owned a château in southern France, called the Château de Talmay. Joscelyn suggested that the pen name of this work might be a Latinized form of Pierre and Talmay, or Petrus Talemarianus.

A few weeks after the ASE conference, on the 4th of July, a close friend of mine and I went to Beverly Hills to meet my friend's French x-girlfriend and her younger sister, whom neither of us had seen in 10 years. We spent the afternoon sitting by the pool of the Hotel Bel Air catching up and sharing stories. At one point, being that they were French, and that the older sister worked for a French magazine, interviewing celebrities and nobility, I began telling them about this strange French book that we had been translating, and of its unknown origins, mostly to make conversation, but also thinking that perhaps she might know something of the Bordeaux-Montrieux family.

To my great surprise, upon mentioning the family name, both girls jumped in their seats, and the younger sister exclaimed, "that's my fiancé's family!" I proceeded to tell her of the details that I knew about the Château de Talmay, which was supposed to possess, in its library, an original copy of this work in a glass case, that was purported to have been owned by the famous architect, Le Corbusier. She confirmed that she had been to the Château de Talmay, and that indeed there was a large book on architecture in a glass case in the library. She further confirmed that her fiancé's great grandfather had been interested in architecture, but she knew nothing more. I hope, upon my next trip to France, to have the possibility to gain access to the archives of the library, to ascertain if there are further manuscripts or notes connected with the material presented in this fascinating work.

NATURAL ARCHITECTURE

I would also like to take this opportunity to update all the Translation Society members on the current status and plans for our various projects. The primary cause of the delay in releasing this book, was that we were exploring new publishing options to release all of our Translation Society titles in a new and higher quality, collector's format. Finding the perfect printer with the various capabilities needed for the complex diagrams and color plates in these volumes turned out to be a more difficult task than we had anticipated. That being the case, we decided to release this volume now, in our standard format, since we know there are those who have been long anticipating the release of this work.

However, I do feel that within the next couple releases, we will have found a new format in which to release the forthcoming volumes. The Hans Kayser and Petrus Talemarianus works present more difficulties than the other planned books, due to their oversized formats, detailed diagrams and color plates, but we do intend, in the future, to re-release each of these titles in a high quality collector's edition, which will be made available to all society members at cost, as a replacement for these initial releases. We are still working on improving the diagram quality in Kayser's *Textbook*, which included a large amount of very small print in the diagrams, and we are also working on converting the German musical notation into English notation for the future edition.

Ariel has been making excellent progress on translating a number of further titles which are almost ready for release, and which we plan to make available, one every couple of months, over the coming year. The next release will be Eberhard Wortmann's *Law of the Cosmos*, to be followed by *The Archeometer* of St. Yves D'alveydre, in which will be included a number of scholarly articles and essays from the last century, almost doubling the size of the original work. We have also completed several other Hans Kayser titles, including *Paestum*, Kayser's work on architecture, *Harmonia Plantarum*, his work on harmonic forms in plants, and the *Harmonic Division Canon*, a small work on the harmonic proportions of the human body. We will probably follow this with the next Wortmann work, *Platons Gottliche Harmonie*, which provides more details and background for his *Law of the Cosmos*, and are considering following that with the massive and complex two volume tome which inspired Kayser's work on harmonics, *Die Harmonikale Symbolik des Alterthums*, by Albert von Thimus. The extremely difficult older German language in which this work was written should slow Ariel down enough to allow us to catch up with our releases, and get back onto our proposed 2-3 book a year schedule.

Finally, we would like to again express our deepest gratitude to Joscelyn Godwin for his generous contributions in editing, researching, and writing informative introductions to these important works. Without his and Ariel's dedicated work, this project would not be possible. We would also like to thank all the Translation Society members for their ongoing interest and support of this project.

William Bradstreet Stewart
Sacred Science Institute
Idyllwild, California
December 2007

NATURAL ARCHITECTURE

PREFACE TO THE ENGLISH TRANSLATION

In offering this translation of *L'architecture naturelle* to the English-speaking public, we do not pretend to resolve all the mysteries surrounding the book and its authorship. By its own testimony, it was written in Latin by one Petrus Talemarianus, during the hundred months preceding the summer solstice of 1944, then offered to Alexandre Rouhier, who oversaw its translation into French, its editing, and its illustration. In 1949, the small Parisian publisher Les Éditions Véga issued the first edition of 252 copies, printed on separate folios with a page size of 22 by 15 inches and contained in a red cloth slipcase. In 1982 Véga issued a full-sized facsimile reprint and also a version in smaller format, about the size of the present volume.

Where such an unusual production is concerned, anything is credible, even the existence somewhere of an original Latin manuscript. But a gentle mystification is also possible, and indeed respectable for works of esoteric wisdom. The United States Catalog of Copyright Entries (Jan.-June 1977)¹ identifies Petrus Talemarianus as Alexandre Rouhier himself, on the authority of Odette Rouhier (his daughter¹). Not much has been published about Dr. Rouhier, but he is famous for one thing: a pharmacologist by profession, he was a pioneer in the first-hand study of hallucinogenic drugs and the author of the classic book on peyote: *Le Peyotl, la plante qui fait les yeux émerveillés* (Peyotl, the plant that fills the eyes with wonder, 1927), and the shorter *Les plantes divinatoires* (Plants of divination, 1927). At least five years earlier, he had been lecturing on the subject to a “Groupe Paléosophique” whose members included the Belgian composer and theorist Ernest Britt (1857-after 1950), the mathematician and historian Francis Warrain (1867-1940), and the psychical researcher Eugène Caslant.¹

These names introduce us to an obscure group of what we might call scientific esotericists, who were searching not only in traditions like Kabbalah and Platonism but also in mathematics and the physical sciences for the links between mind and body, God and man, the Absolute and the manifest. Astonishingly enough, Francis Warrain is the sole contemporary authority cited in *L'architecture naturelle*. The Editor adds that he submitted the manuscript to him, and includes an unpublished essay of Warrain's as an appendix. Warrain's difficult works ranged over higher mathematics, Kabbalah, music theory, monographs on Kepler's cosmology and on the polymathic Charles Henry (1859-1926), and culminated with an immense unfinished study of the Polish “philosopher of the Absolute,” Hoëné Wronski (1776-1853).

If *L'architecture naturelle* virtually ignores the twentieth century, it is hardly more cognizant of nineteenth-century authorities. Only two names appear: one is Charles-Edouard Brown-Séguard (1817-1894), an important medical researcher whose discoveries helped Charles Henry to develop his own theories of psychophysics; the other is Wronski, whose life inspired Balzac's novel *La recherche de l'absolu*. The focus grows sharper when we add that Ernest Britt, too, was a lifelong admirer of Wronski, and that he and his wealthy second wife supported Wronskian enterprises in France and Poland, including the publication by the same house of Véga of Warrain's *L'Oeuvre*

NATURAL ARCHITECTURE

philosophique de Hoëné Wronski (three vols., 1933-38). If with this loose circle of French Wronskians we have not reached the creator(s) of *L'architecture naturelle*, at least they were tangential to it.

Some readers will soon spot another influence: that of René Guénon (1886-1951), the father of French Traditionalism. Although Talemarianus never mentions Guénon by name, he leaves clues by using such phrases as “the multiple states of being,” and by basing his metaphysical hierarchy, from “Non-manifestation” downwards, on similar principles to Guénon’s. Like the latter, he takes it for granted that wisdom is to be sought in the ancient religious and philosophical traditions of East and West; that these traditions, rightly understood, are in accord with one another; and that the monuments of literature and architecture, at least up to the Renaissance period, encode a perennial esoteric knowledge.

The connection with Guénon goes further, for it was on his initiative that Éditions Véga, publisher of *L'architecture naturelle*, was founded. This happened in 1929-30, during Guénon’s brief liaison with an American heiress, Mary Wallace Shillito (1876 or 1878-1938).¹ Mary was the daughter of a Cincinnati department store magnate, John Shillito (1808-1879), and had recently lost her second husband, Assan Farid Dina (1871-1928). Guénon’s wife had also died in the previous year, and as soon as the two of them met, reputedly in Chacornac’s occult bookshop, they became close friends. They decided to start a publishing house to specialize in traditional texts; Guénon would select and edit them, and Mary Shillito would provide the funds. As a first step, they planned a trip to Egypt, to gather materials.

This was not how things turned out. The couple left for Egypt on March 5, 1930, but after three months, Mary returned alone to France, where she immediately married the aforementioned Ernest Britt. Guénon stayed in Egypt for the rest of his life. Véga did publish two of his works, and those among his most important: *Le symbolisme de la croix* (The symbolism of the cross, 1931) and *Les états multiples de l'être* (The multiple states of being, 1932), but its loyalty had shifted. Before the end of the year, flush with Mary Shillito’s money, it had brought out a luxurious, limited edition of Britt’s *La lyre d'Apollon* (Apollo’s lyre); in 1931 appeared Warrain’s *La théodicée de la Kabbale*; and Véga remained devoted to the Wronskians for the rest of the decade.¹

L'architecture naturelle could well be called a Traditionalist work in the Guénonian sense, but it lacks the negative attitude assumed by most of those who wear that label. While Guénon, in such works as *The Crisis of the Modern World* and *The Reign of Quantity and the Signs of the Times*, was one of modernity’s sharpest critics, Talemarianus does not bother with polemics or utter apocalyptic warnings. With the exceptions mentioned above, he simply ignores anything later than the seventeenth century. Rabelais, Kepler, Pascal’s and Euler’s mathematics, and the Château of Versailles are as far as he cares to go.¹ Having begun his “Report” early in 1936 and labored at it “for a hundred months” that took him throughout the second World War, he finished it on June 24, 1944, during the heat of the Normandy invasion—of which it bears not the slightest trace.

Véga’s publication of it in 1949 was another act of positive defiance. The extravagance and gigantic size of the book, its superb typography and hundreds of illustrations, and the declared intention of teaching architects how to build houses and

NATURAL ARCHITECTURE

palaces, churches and temples with natural materials, in accordance with natural laws, were as contrary as possible to the drabness and shoddiness of the postwar world.

Much of the credit for the book's beauty goes to Marcel Nicaud, an employee of the French national museums whom Rouhier apparently brought into the project. Nicaud's other known work includes book illustrations and the copying and restoration of medieval wall-paintings.¹ The decision to use no photographic reproductions, but to have Nicaud redraw even well-known alchemical engravings, as well as a host of artefacts from every corner of the globe, gives *L'architecture naturelle* its graphic unity. The only comparison that comes to mind is Manly Palmer Hall's masterpiece of 1928, *The Secret Teachings of All Ages*, with its fine typography and color-plates by J. Augustus Knapp.

As for the enigmatic figure of Petrus Talemarianus, the catalogues of some rare book dealers,¹ evidently privy to inside information, identify him not as Alexandre Rouhier but as "Bordeaux-Montrieux."¹ That is the surname of a distinguished French family, of which one member, Pierre Bordeaux-Montrieux, married Jeanne Thénard, daughter of a famous chemist Paul Thénard (1819-1884).

Through her father, Jeanne Thénard inherited a remarkable property: the Château de Talmay, in the village of that name east of Dijon. The name of Talmay may strike a chord with the Latinized "Talemarianus," and from pictures of the château and its gardens, it is clear that this is the very place represented in the supplementary plans to *L'architecture naturelle*.

Early in 2007 a local magazine presented a short article about the château, aimed at tourists.¹ It included an interview with the present owner, Ghislaine Bonhoure, who explained that the château had come down to her and her brother from their grandmother, Jeanne Thénard. The article adds that visitors to the château may see, among other rooms, the library, "where there is an exceptional work: *De l'architecture naturelle*. It is a monumental book signed 'Petrus Talemarianus,' alias Pierre Bordeaux-Montrieux, who was none other than the grandfather of Ghislaine Bonhoure. The copy, which was once the property of Le Corbusier, reports the researches that he made over a dozen years into the Golden Number and architecture in general." The article also mentions the gardens (which appears in our book as "Horti Talemariani") in the following words: "Today, Ghislaine Bonhoure has set out to continue the work begun by her grandfather who, after the War, undertook the restoration of the French-style garden, basing it on the 18th-century plans."

The whole atmosphere of *L'architecture naturelle* seems in accord with its authorship by an aristocratic recluse, who chose as a pseudonym a Latinization of his ancestral home, while Rouhier, the pharmacologist-editor, inserted the incongruous references to the personalities and interests of the Wronskian circle. There is evidently room for further investigation of this enigmatic character.

Joscelyn Godwin
Hamilton, New York
June 2007

NATURAL ARCHITECTURE

TRANSLATOR'S NOTE

In this translation, where the Author quotes passages from other books, a standard translation has been used in most cases. For passages from the "Bible," the King JAMES version was used; for passages from the "Iliad," the translation by WILLIAM COWPER; for passages from the "Upanishads," the MAX MUELLER translations; for the works of PLATO, the BENJAMIN JOWETT translations; for passages from DANTE, the translation by HENRY WADSWORTH LONGFELLOW; and for passages from RABELAIS, the translation by Sir THOMAS URQUHART of Cromarty and PETER ANTONY MOTTEUX.

The original edition of *De L'Architecture Naturelle* conveyed the constructive rules taught by Petrus TALEMARIANUS not only in the text, but also in the pagination, design, and numerous other aspects of the presentation of the "Report," in a most remarkable manner. Although we were not able to reproduce all these aspects with complete precision in this first English language edition, all editor's notes on the design of the "Report" are included for the sake of completeness.

Ariel Godwin
Columbus, Ohio
September 2006



EDITOR'S FOREWORD

"This temple is like Heaven in all its arrangements."
(*Inscription at the Temple of Ramses II.*)

ABOUT FIVE OR SIX YEARS AGO, a Master of the Work brought us a manuscript written in Latin, illustrated with remarkable geometric figures, and accompanied by plans for civil and religious edifices. It came, he told us, from a pure traditional source. This work presented considerable interest to us. It demonstrated not only that *the geometric outlines and numbers derived from the regular partition of the sphere determine universal constructive rules* (which have been entirely forgotten in our present epoch), but also that these rules could serve simultaneously for the spiritual perfection of man, his intellectual development, and the realization of his material well-being. We therefore thought it indispensable to publish it.

This is why we present, to those who may still be interested in these matters, the most accurate possible version of this manuscript in French. We have meticulously respected the terminology and translated all the terms integrally, even though some of them appeared to us to be susceptible to criticism, discussion, or controversy. In fact, we do not believe that this "Report by a Master of the Work" can be considered a "work of science and erudition" in the narrow sense of our times, but rather as the expression of an *essentially realizable "guild doctrine,"* transmitted by an author indifferent to those minutiae, quibbles, and philosophic subtleties that are not really constructive.

This doctrine is not new. It presided over the construction of the most famous works of the ancients. We have therefore thought it appropriate to illustrate the text of this book with symbolic engravings, reproducing documents and monuments of times past from many different countries and eras. Each of them reveals certain constructive rules from the Master of the Work.¹ They will thus contribute to proving the great antiquity and demonstrating the

universality of their applications, and will illuminate a way of thinking whose strong synthetic and technical character can sometimes make it difficult to access. We have chosen them from among many others, all of which were equally demonstrative; the attentive reader will find many more of them if he studies the monuments of the epochs illustrated, which still draw admiration in modern times.

Moreover, this iconography has appeared

to us to constitute an indispensable complement, and a more material expression, as it were, of the Author's geometric designs—which themselves are expressions of the metaphysical principles from which they proceed.

Thus, we wished to present this "Work" in a way analogous to that of the cathedrals of olden days. On the exteriors of these cathedrals, and especially on the porches, the builders assembled a whole symbolic imagery, explicative of the edifice, while leaving the interior naked of all ornamentation² and rich in its geometric



NATURAL ARCHITECTURE

proportions alone, so favorable to meditation and creative of that atmosphere of sacred contemplation which facilitates access to the divine.

Logically, we have tried equally hard to implement the typographic construction of this book according to the proportions and numbers corresponding to the constructive rules that it teaches.³

Appearing thus, with its uncommon theories, its strange figures, its recalling of old sciences considered as “ridiculous reveries” by some and “accursed sciences” by others, this singular work risks appearing disconcerting or obscure to certain people... “You must open the book,” we remind them with RABELAIS, “and painstakingly evaluate that which is inferred. Then you will find that the drug contained therein is quite different from what is promised on the bottle.” We therefore beseech the reader to beware of a hasty or superficial examination, and not to make a judgment until after having patiently and attentively studied this remarkable synthesis of the traditional sciences and arts, first in its entirety, then in its details.

For an easier beginning, we recommend first reading the “Plan of the Work” (p. xvi), which came attached to the manuscript, then the analytical “Table of Contents” that we have prepared, and finally (pp. 356 to 360) the Author’s “Conclusion.” The reader will then have an idea of the totality of the Work; this will be useful for guiding him through the exposition of an idea which, for reasons of brevity, had to be expressed with more conciseness than was merited by the gravity of the subject, its extent, and the richness of its immediate conclusions.

The motto surrounding the mark (reproduced above) of Conrad BADIUS, the Genevan bookseller of the 16th century, serves as our conclusion, because it illustrates perfectly the spirit and the value of this “Report”:

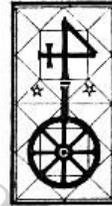
*From hollow dwellings, full of obscurity,
God, through Time, draws out Truth.*

It falls to you now, benevolent reader, to make the effort indispensable to the discovery of “this” Truth. It will then become “yours,” because it is a universal Truth.



The Editor:

A



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¹ At the bottom of the pages on which they are shown, we attempt to draw the reader’s attention to their symbolic content by means of short explanatory notes (marked with a small lozenge ♦ or a small square ■). These notes are intended neither to be complete nor to exhaust the meaning of the engraving, but only to direct the reader’s mind to the connections existing between these illustrations and the Author’s theories. Certain figures have no commentary, not because their symbolism is too obvious or too well known to the adept, but because it would lead to overly lengthy explanations.

To give an example: the construction, dimensions, and ornamentation of the architectural entrance on the title page contain—within the numbers and reciprocal ratios of the stones of the pediment, the entablature, the columns, and the 3 steps—a collection of numeric ratios, which the informed reader will take pleasure in discovering. For example, the numbers of the stones of the 3 steps at the base, here representing the 3 magical enclosures, are those of the architect’s square: 3, 4, 5; The entablature symbolizes the constructive word ABRACADABRA; the stones of the columns, including or not including the base, present the fundamental opposition of 18 and 15, which is that of the senary and quinary; etc...

² Obviously we do not count the narrow mediating belt formed by the ornamental line of the capitals, because it disappears in the ensemble of the geometric lines of the nave; nor the keystones of the vault. We call it a mediating belt, believing that whenever there is ornamentation there is mediation, because all ornaments (sculpture, painting, inscriptions) must be considered as magical in their essence, and because magic belongs to the intermediary World. The keystone of the ornate vault, point of departure of the broken arch, indicates a mediation between the Non-manifest and the entirety of Manifestation; the capital may be considered as mediator between the curvilinear form of the ogival arch (representing universal Manifestation) and the straight form of the pillar (representing individual Manifestation).

³ Just as, in PLATO’s description, the temple of POSEIDON is the center of the royal city of Atlantis, so the Master of the Work’s “mediating diagram” (fig. 27) appears incontestably as the symbolic “omphalos” of this “Report,” and its proportions are those of the plan of the Atlantean sanctuary. If this temple is reduced to a width of 1 millimeter, the

diameter of the Royal City is then equal to 10 English inches (*the English inch, the only inch of which we speak, equals 0.0254 m.*), which is precisely the length given by the Author to his mediating diagram, the length of which is 20 inches. (*We recall that the King's chamber in the Great Pyramid is 10 royal Egyptian cubits wide by 20 cubits long, and that the "flying scroll" in the vision of ZECHARIAH [Zec. V, 2] is also 10 by 20 cubits.*) These are the dimensions of the mediating diagram, intended to be printed on a full page, which led us to choose in-folio super royal paper as a format. The height of a leaf being 22 inches (0.559 m.), and its width 15 (0.381 m.), this format is directly linked to the Egyptian approximation of the number π , i.e. $22 : 7 (= 22 : 22 - 15)$, as well as to important Kabalistic numbers.

The dimension of the letters chosen for printing is equally symbolic: those of the text are 24-point, those of the notes 18; this opposition, in the ratio of 4 to 3, represents the inferior generation corresponding to the Worlds of individual Manifestation.

The typographical "justification" (length of lines) is 10 inches (0.254 m.); the typographical "height of the page" is 16 inches (0.406 m.); the dimensions of the printed text are therefore, according to the Author's terminology, those of a *golden rectangle*, while the mediating diagram is a *silver rectangle*. The oppositions of 3 and 2, and those of 11 and 8, to which the Master of the Work draws ceaseless attention, are reproduced between the width of a leaf and the width of the justification, as well as between the height of a leaf and the typographical "height of the page."

The blanks of the margins (exterior and interior) total 5 inches, while the blanks at the head and foot of the page together make 6 inches. Their union and their crucial opposition therefore again represents the union and opposition of the quinary and senary, which are encountered in all constructions of universal character; they are found in the frames of the mediating diagram.

We even wished to represent these fertile mutations $5 \leftrightarrow 6$ in the form of the "cross-references"; this is why the 5-pointed star in the text leads to the 6-pointed star in the notes, from the beginning of the work up to the "geometric Tau" and the corresponding "Crucifixion," which are the 80th and 81st images of the "Report." Thereafter, these cross-references permute, and the 6-pointed star in the text leads to the 5-pointed star in the notes.

Just as the voyage of PANTAGRUEL in search of the Holy Bottle takes place in 35 or 36 stages (see p. 293), so the Author's text is divided into 35 or 36 chapters, depending on whether the conclusion, in the form of a flask or hermetic Vessel, is counted as a distinct chapter.

Moreover, the "Report" comprises 50 geometric figures and 22 plates. In the footnotes there are 7 small untitled figures of geometric character. The documentary illustration that we have added consists of 108 engravings and 7 geometrical titled designs, positioned so as to conform to the symbolism of the mediating diagram that guided the construction of the book.

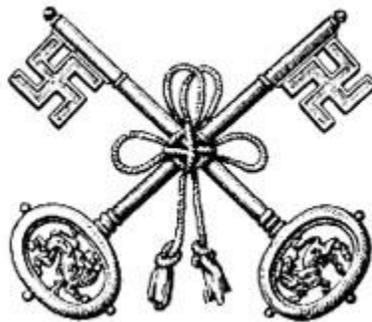
The footnotes are the Author's, except where indicated to the contrary. Some, which were attached to the manuscript on separate pages without indication for placement, are added in 12 "Appendices" at the end of the volume.

Only 252 ($= 36 \times 7$) ($= 108 \times 7 : 3$) copies of the book have been printed, which required 63 ($= 108 \times 7 : 12$) reams of paper.

All these numbers, their groupings, and their oppositions ($5 \leftrightarrow 6$, $7 \leftrightarrow 12$, $35 \leftrightarrow 36$, $22 \leftrightarrow 50$, $80 \leftrightarrow 81$, $108 \leftrightarrow 7$) have a symbolic value and present a traditional character; they are found in the laws of the regular partition of the sphere, the value of which emerges clearly from the Author's theories.

The indication of the place and date which precedes the Editor's signature fulfills, with its form and colors, a complementary opposition to the philosopher's bottle on page 361, which confirms the mystical conclusion of the Master of the Work; this cup (or Grail), moreover, contains a symbolic chronogram that yields important Taoist, Pythagorean, and Kabalistic numbers. Cinnabar (salt of sulfur and

mercury) is part of the composition of the red ink used. The white of the paper, the black and red of the inks, are the colors of the Philosopher's Stone, which also indicates that *this book is really, in all its stages, the "Book of the Great Transmutation."*



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A. – THE THIRTY-FIVE CHAPTERS OF THE REPORT

I. – The Master of the Work, after having traveled the World in search of the laws of traditional Architecture using natural materials, sees in a dream an “enclosed Garden”; the entrance is opened to him thanks to the magic word ABRACADABRA, which leads him to discover the ratio h/g linking the side of a regular pentagon to that of a regular hexagon in the same circle.

He defines the first rules of natural Architecture, the proportions of which he has obtained, devising an “operative diagram” with twelve triangles and seven squares; he calculates the elements of the diagram with the aid of “h” and “g” (pages 1 to 16).

II. – The sage AKLISHTAKAR explains Hindu doctrines to him, especially from the aspect of Tantrism, and gives him a diagram. The Master of the Work observes that his operative diagram is generated in the same way as AKLISHTAKAR’s Tantric diagram (pages 17 to 31).

III. – The study of Chinese Taoism confirms the elements of Hindu doctrine for him. The Master of the Work can thus assign numeric correspondences to the different Worlds of Manifestation, and know the existence of the cosmogonic Ennead formed from a Unity ruling eight quantities placed in pairs (pages 32 to 39).

IV. – Chinese wisdom leads him to construct a figure that mediates between the squares and the circle; this figure is the key that yields the form of the Pyramid of CHEOPS. The base of this Pyramid, and its four faces folded upon this base, outline part of the operative diagram, which permits the Master of the Work to discover nine lengths forming eight ratios associated in pairs; these lengths and ratios constitute the

constructive aspect of the Philosopher’s Stone (pages 40 to 45).

V. – To designate these nine lengths and mark the plans with letters, the Master of the Work seeks the traditional name of the Philosopher’s Stone; he acquires the conviction that this word is ARSENIC●M (pages 46 to 55).

VI. – He distributes the nine lengths sought throughout the operative diagram; he has one of the letters of ARSENIC●M correspond to each of them; he gives a metaphysical attribution to each of the eight ratios; he calculates the numeric quantity for each one. He observes that the succession of values of these ratios forms a geometric progression of ratio h/g , i.e. a mutation of the quinary and senary (pages 56 to 63).

VII. – The study of this progression allows him to determine the geometric outline of the interior corridors and chambers of the Great Pyramid, whose dimensions also reveal the proportions of the Philosopher’s Stone (pages 64 to 72).

VIII. – The three exterior squares of the operative diagram allow him to devise an “intermediary diagram on triangles” with eleven elements, specially indicated by the sign of the “Om” (AVM). The Master of the Work has their elements correspond to the signs of the zodiac and to the planets (pages 73 to 82).

IX. – To this intermediary diagram formed by triangles, he opposes, by complement, an “intermediary diagram on pentalphas,” with eleven elements (pages 83 to 86).

X. – To link these two intermediary diagrams, he devises the “mediating diagram,” also marked with the seal of the mutations of the

NATURAL ARCHITECTURE

quinary and senary, and confirms its primary constructive virtue. He calculates the deformations of the nine lengths of ARSENIC•M obtained in this diagram (pages 87 to 96).

XI. – The calculation allows him to justify the metaphysical attributions given to the eight constructive ratios of the Philosopher's Stone, and to determine the approximate values of these ratios, which bring to light the fundamental role of the mystic numbers 108 and 7 in Tantrism and the Kabala (pages 97 to 101).

XII. – To test the metaphysical value of the mediating diagram, the Master of the Work studies Egyptian theodicy (pages 102 to 104).

XIII. – This leads him on to study the Hebraic Kabala, which was the vehicle of Egyptian Science. It leads him to discover the analogy existing between the constitution of the Sephirothic Tree and that of the intermediary diagrams (pages 105 to 116).

XIV. – The Kabalistic doctrines permit him to divide the mediating diagram according to the divisions in relation to the Sephirothic Tree (pages 117 to 125).

XV. – Guided by the principle of polarity, the Master of the Work devises the "complete diagram," in which all the elements of the operative diagram are doubled. This complete diagram reveals the formal principles of natural Architecture. His geometric studies conclude with the establishment of a synthetic outline, where the five diagrams he has devised are placed in a single figure in the form of a tau (pages 126 to 134).

XVI. – Following wise Pythagorean discipline, the Master of the Work then demands a verification of his constructive theories from Arithmetic, Astronomy, Harmony, Geometry, and Stereometry. Through Arithmetic, he finds concordances with the cosmogonic squares of the Chinese (pages 135 to 142).

XVII. – Through Astronomy, following a Khmer tradition concerning planetary arithmology, he justifies the assignments he has given to the various planets to designate the elements of his diagrams (pages 143 to 150).

XVIII. – The Chinese theory of the twelve musical pipes, completed by the study of the scales of PTOLEMY and PYTHAGORAS, shows him the direct resemblance existing between the laws of Harmony and those of natural Architecture (pages 151 to 162).

XIX. – The study of Harmony leads him to study sacred alphabets, and allows him to discover that the ratio of the bases of the same

exponential law that rules both musical intervals and architectural proportions is \sqrt{g} (pages 163 to 170).

XX. – In Geometry, by reason of the importance of the logarithmic law in his constructive theories, the Master of the Work is led to study the regular division of the circle, and consequently the rhythmic numbers; he provides the meaning of many universal pantacles (pages 171 to 175).

XXI. – In Stereometry, he studies the regular partition of the sphere, from which the regular polyhedrons proceed; he describes four types of correspondences between these solids. He demonstrates that his diagrams are only the projection, on a plane, of some of these correspondences, and that they thus find their justification in the regular partition of the sphere (pages 176 to 195).

XXII. – Having now completed the examination of the traditional sciences, the Master of the Work seeks new concordances to his constructive doctrines in the social applications of metaphysics. First he encounters, in myths and symbols, the same numeric oppositions, resulting from the laws of the regular partition of the sphere, that he discovered in his diagrams (pages 196 to 211).

XXIII. – He then studies the cults of the Stone and the Waters, dedicated to the two exteriorizations of the Center of the World, and he gives numerous examples drawn from many traditions (pages 212 to 221).

XXIV. – He searches for connections between the doctrines of the alchemists and his diagrams. He describes notably, with regard to these latter, the constitution of the alchemical Vessel, and follows the development of the four operations or "colors" of the Great Work (pages 222 to 232).

XXV. – The reading of the most famous writings of times past, of a traditional character commonly accepted, allows him to observe that the plan of these works and the numbers that are encountered there confirm his theories about architecture. He first examines, from this point of view, the "Genesis" of MOSES (pages 233 to 249).

XXVI. – The "Theogony" of HESIOD provides him with further proofs of this concordance (pages 250 to 253).

XXVII. – The various myths of PLATO, studied in relation to the "Timaeus," are in agreement with the Master of the Work's constructive doctrines (pages 254 to 275).

NATURAL ARCHITECTURE

XXVIII. – DANTE's "Divine Comedy" leads, in the same way, to the alchemical and initiatory science of its author (pages 276 to 283).

XXIX. – This secret science is also found in its entirety in RABELAIS' novel, the plan of which the Master of the Work compares with his mediating diagram (pages 284 to 305).

XXX. – Having thus completed the verification of the validity of his doctrines, the Master of the Work uses his diagrams to define the proportions of the houses of habitation erected according to the rules of natural Architecture; he provides plans for six types of houses (pages 306 to 313).

XXXI. – He extends his work to religious edifices, divided into five types, whose plans he gives (pages 314 to 318).

XXXII. – He uses the mediating diagram to describe and link together the two most perfect types of buildings: the philosophical dwelling of an Adept (Domus Talemariana) and the cathedral of a Pontiff (church of type *H*). He plots out,

according to his system, the imperial city of Peking with its various parts (pages 319 to 330).

XXXIII. – Further widening the field of application of his theories, the Master of the Work, under their light, examines the plan of the Island of Atlantis and its royal city, according to the description given by PLATO (pages 331 to 338).

XXXIV. – He finally seeks ultimate concordances in the "Apocalypse" of Saint JOHN, whose visions he analyses. He explores the church of type *H*, dedicated to "Shekinah" (Cathedral of Amiens), and observes that the divisions of this edifice are in concordance with those of the apocalyptic book (pages 339 to 355).

XXXV. – In conclusion, the Master of the Work, after having summarized the terms of his Report, affirms his faith in the utility, for mankind, of knowing and loving the rules of natural Architecture, in order to obtain, through the realization of universal Harmony, the great Detachment necessary for complete felicity (pages 356 to 360).

B. – THE TWELVE APPENDICES

I. – Construction of an approximate pentalpha with the rectangle \sqrt{g} (page 365).

II. – Table of the approximate numeric values of the eight ratios of ARSENIC•M (page 366).

III. – Ratio h/g obtained through the regular dodecahedron (page 366).

IV. – Chinese cosmogonic squares and table of PYTHAGORAS (pages 367 to 368).

V. – The magic squares (pages 368 to 370).

VI. – Khmer arithmological series and Chinese cosmogonic squares (pages 370 to 371).

VII. – On $\sqrt{\pi}$, $1/\sqrt{2}$, and the ratio between the septenary and duodenary (*Unpublished essay by Francis WARRAIN*) (pages 371 to 374).

VIII. – Regular polyhedrons and polygons (pages 374 to 405).

IX. – Quadratures of the circle obtained in the diagrams (pages 405 to 406).

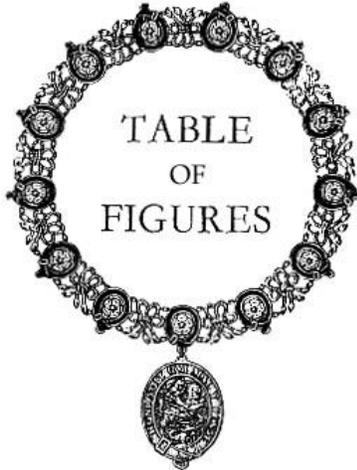
X. – The figured numbers (pages 407 to 409).

XI. – The rhythm of the holy Letters (pages 410 to 422).

XII. – The divine architectural archetype and its paths (pages 423 to 432).

C. – THE ADDED NOTES

We have gathered, at the end of the book (pages 433 to 437), various notes, relating especially to the illustration of the "Report," which could not be placed near the images to which they correspond.



FIGURES CONTAINED IN THE 35 PARTS OF THE REPORT

COMPRISING 50 GEOMETRIC, NUMERIC, AND TITLED DESIGNS BY THE AUTHOR, AS WELL AS 108 ENGRAVINGS AND 7 TITLED GEOMETRIC DESIGNS BY THE EDITOR.

The Master of the Work, p. xvii.

I

Untitled engraving, p. 1 – Fig. 1: PASCAL’S arithmetical triangle and the FIBONACCI sequence, p. 2 – Fig. 2: The Egyptian triangle, p. 2. – Enclosed garden, p. 3. – Fig. 3: PASCAL’S arithmetical triangle confined to the chessboard, p. 5. – Fig. 4: Pentalpha, p. 5. – Fig. 5: Small squares, p. 6. – Fig. 6: The logarithmic spiral tangent to the corners of the revolving squares, p. 7. – The humble contemplative before the Virgin, and the four animals, p. 8. – Fig. 7: The key to Natural Architecture, p. 9. – Fig. 8: Construction prior to the operative diagram, p. 10. – Fig. 9: The operative diagram, p. 15. – The “Shriyantra,” p. 16.

II

The Holy Trinity, p. 17. – Papal arms, p. 22. – Fig. 10: The triple triad, p. 23. – Fig. 11: AKLISHTAKAR’S diagram, p. 24. – The great ARTEMIS of Ephesus, p. 25. – The Woman, heart of the “Apocalypse,” p. 28. – KOUAN-YIN with eighteen arms, p. 29. – FOU-HI and his wife NIU KOUA holding the square and compass, p. 31.

III

The pair of opposites (eastern and western Alchemies), pp. 32 and 33. – Fig. 12: The generation of the Pa Koua,” p. 34. – SHIVA on the bull NANDI, p. 36. – Players of dice, p. 37. – Fig. 13: Triangular numbers, p. 37. – Fig. 14: Square numbers, p. 38. – Fig. 15: Pentagonal numbers, p. 38. – Fig. 16: the Shrivatsa, p. 39.

IV

Fig. 17: The constitutive triangles of the pyramid of CHEOPS, p. 42. – Fig. 18: The essential dimensions of the Great Pyramid, p. 43. – Fig. 19: The constitutive triangles of a pyramid connected with the “materia” squares, p. 44. – Chinese “Ming t’ang,” p. 44. – Lotus flower, p. 45.

NATURAL ARCHITECTURE

V

The ten Sibyls, p. 51. – Archaic Chinese text, p. 54.

VI

The cow NOUIT and the supporting gods, p. 56. – Assyrian ennead, p. 58. – Untitled engraving, p. 62. – Fig. 20: Quadrilateral of HERMES, p. 62.

VII

The twelve signs of the zodiac, p. 64. – The seven planets, p. 65. – The coffer of the Virgin, p. 69. – Fig. 21: Outline of the interior chambers and corridors of the Great Pyramid, p. 70. – Fig. 22: Magic rectangle of the Great Pyramid, p. 71. – Pentagon and pentalpha, p. 72.

VIII.

Fig. 23: Construction prior to the intermediary diagram on triangles, p. 74. – Fig. 24: The intermediary diagram on triangles, p. 75. – The head and tail of the Dragon, p. 76. – The Egg of the World, p. 78. – Tibetan “Om,” p. 79. – Fig. 25: The intermediary diagram on triangles in correspondence with the “Om,” p. 80. – Pectoral of the Archgallus, p. 82.

IX

Fig. 26: The intermediary diagram on pentalphas, p. 84. – The mediating Sovereign, p. 85. – Pentagonal lamp, p. 86.

X

Fig. 27: The mediating diagram, p. 88. – The zodiacal hermaphrodite, p. 89. – Fig. 28: Construction relating to the lower part of the mediating diagram, p. 91. – The alchemical Work, p. 96.

XI

Untitled engraving, p. 101.

XII

The Ogdoad of Hermopolis, p. 103.

XIII

Aleph, p. 106. – Fig. 29: The Sephirothic Tree, p. 108. – CYBELE, the Mother of the gods, p. 109. – MIKAËL (the “Metatron”), p. 110. – The Table of the twelve loaves of showbread, p. 113. – The Candelabra of the Tabernacle, p. 114. – The birth and transformation of the ten thousand beings, p. 115.

XIV

NOUIT, SHU, and SEB, p. 118. – Meditating Taoist, p. 119. – Untitled engraving, p. 120. – Hindu “Lingam,” p. 122. – “Aum mani padme houm,” p. 125.

XV

Fig. 30: Construction prior to the complete diagram, p. 126. – The Annunciation, p. 129. – Fig. 31: The complete diagram, p. 130. – Fig. 32: Geometric properties of the complete diagram, p. 131. – Fig. 33: The geometric Tau, p. 132. – Crucifixion between the Sun and Moon, p. 133.



XVI

Fountain of knowledge, p. 135. – Fig. 34 *a* and *b*: The “Ho-t’ou” and the “Lo chou,” pp. 136 and 137. – Fig. 35 *a* and *b*: Chinese cosmogonic squares of 6 and 5, p. 138. – Fig. 36 *a* and *b*: The eight Trigrams (arrangements of FOU-HI and King WEN), p. 138. – Fig. 37 *a* and *b*: Cosmogonic square of 5 (separating directions of FOU-HI and King WEN), p. 139. – Chinese tower with eleven stories, p. 140. – Fig. 38 *a* and *b*: “Swastikas” on the cosmogonic squares of 6 and 5, p. 141. – The goddess of the rainbow, p. 142.

XVII

Fig. 39: The Khmer arithmological and planetary squares, p. 143. – MITRAPHANES emerging from the pyrogenic Egg of the World, p. 147. – Egyptian Gnostic cross, p. 148. – Alchemical putrefaction, p. 149.

XVIII

Fig. 40: The rose of the twelve musical pipes, p. 151. – Chinese bell with phoenix heads, p. 157. – AMPHION, son of JUPITER, building “hundred gated” Thebes, p. 162.

XIX

Fig. 41: Alphabetical wheels based on ARSENIC•M, p. 165. – Ritual of the consecration of a church, p. 166. – The rose on the façade of Exeter cathedral, p. 168. – Plan of the upper level of the statues of the “screen” of Exeter, p. 170.

XX

The union of macrocosm and microcosm, p. 173. – Double-headed eagle, p. 175.

XXI

Architecture and music, p. 178. – Fig. 42 *a* and *b*: Constitutive quadrilaterals of the equilateral triangle and the square, p. 180. – Fig. 43 *a*, *b*, and *c*: Equilateral triangle and squares with their constitutive triangles, p. 180. – Fig. 44: Pentagon with constitutive triangles, p. 185. – Notre-Dame de Tournai, p. 187. – Fig. 45 *a*, *b*, *c*, *d*, and *e*: The planar projections of the five platonic solids, p. 188. – Fig. 46: The projection of the “yin” correspondences of the platonic solids superposed on the complete diagram, p. 191. – The quintuple hexahedron, p. 192. – Cubic Stone, p. 195.

XXII

Image of the Moon and image of the Sun, p. 199. – HAYAGRIVA, p. 201. – AVALOKITESHVARA with eleven heads and eight arms, p. 202. – Fig. 47: Descent of the Sephirothic Tree into the various Worlds of Manifestation, p. 207. – Ascent of “Kundalini” through the seven “chakras” of the human being, p. 208. – The prophet ZECHARIAH, p. 211.

XXIII

Black Virgin, p. 214. – JACOB’s ladder, p. 216. – The story of ŒDIPUS, p. 218. – The two Dioscuri at the service of the Goddess, p. 219. – The pinecone of the Vatican, p. 220.

XXIV

Alchemical laboratory, p. 223. – The upper, middle, and lower parts of the furnace, p. 226. – Alchemical credence, p. 227. – ULYSSES healing TELEPHUS, p. 230. – Pyrogenic vessel, p. 232.

NATURAL ARCHITECTURE

XXV

The Ark of the covenant, p. 236. – MOSES' tabernacle and courtyard, p. 245. – Nubian tau, p. 249.

XXVI

The tomb of King MIDAS the alchemist, p. 251. – CYBELE, her two assistants, and her two lions, p. 253.

XXVII

The Great alchemical Work (humid path), p. 259. – The Great alchemical Work (dry path), p. 271. – The labyrinth at Chartres cathedral, p. 274.

XXVIII

Tree of Raymond LULLY, pp. 280 and 281.

XXIX

The rocks of Bogaz-Kheui, pp. 288 and 289. – The magical lintel of the octagonal chapel of Montmorillon (interior face and exterior face), pp. 293 and 294. – The Pontife, p. 300. – The Virgin with her cloak, p. 303.

XXX

The Virgin in her glory, p. 306. – Fig. 48 *a* and *b*: Plans of houses within gardens, pp. 308 and 309. – Plan of the palace of Versailles, superimposed upon the Monad of John DEE, p. 312. – Fig. 49: Mediating plan, p. 313.

XXXI

Fig. 50: Broken arch, p. 314.

XXXII

BUDDHA's feet, p. 319 and 320. – CYBELE between the SUN and MOON, p. 322. – The two powers and their synthesis, p. 327. – Diagram of the itinerary to follow for acquiring the ability to fly through the air, p. 328. – Untitled engraving, p. 330.

XXXIII

MITHRAS cutting the bull's throat, p. 333. – Saint CHRISTOPHER, p. 335. – Schematic plans of the island of Atlantis and its royal citadel, p. 338.

XXXIV

"Ecclesia templariis," p. 340. – "Templum EZEKIEL," p. 345. – The vision of the throne of GOD and the Lamb, p. 347. – Keystone of the absidial vault of the cathedral of Amiens, p. 350. – Saint JOHN at Patmos, p. 355.

XXXV

The central tympanum of the main gate of the cathedral of Bourges, p. 356. – Untitled engraving, p. 360.

The Holy Bottle (§ XXXVI), p. 361.
The Pilgrim, p. 362.

FIGURES AND TABLES CONTAINED IN THE TWELVE APPENDICES OF THE WORK

Tibetan engraving, p. 363. – Plan of the Lamaic cathedral of Lhasa, p. 364.	VII
I	Bell curve, p. 373.
Construction of an approximate pentalpha with the rectangle \sqrt{g} , p. 365.	VIII
II	Regular polyhedrons: surfaces and volumes, pp. 374 and 375. – Fig. I <i>a, b, c, d, and e</i> , p. 377. – Fig. II, III, and IV, pp. 380 and 381. – Table of the classification of the types of polyhedrons, p. 382. – Nomenclature of the polyhedrons, pp. 383 and 384. – Table of the elements of the polyhedrons, pp. 386 to 390. – Construction of the faces of the polyhedrons, pp. 391 to 394. – Correspondence of the polyhedrons to the “Sephiroth,” pp. 395 and 401 to 404.
Table of the approximate numeric values of the eight ratios of ARSENIC•M, p. 366.	IX
III	Quadrature of the circle obtained in the operative diagram, p. 406.
Ratio h/g obtained through the regular dodecahedron, p. 366.	X, XI, and XII
IV	Figured numbers, p. 408.
Chinese cosmogonic squares and Pythagorean table, p. 367.	
V	
The magic squares and their planetary correspondences, p. 369.	
VI	
Khmer arithmological series and Chinese cosmogonic squares: Fig. I, p. 370. – Fig. II <i>a, b, c, and d</i> , p. 371. – Fig III <i>a, b, and c</i> , p. 371.	

THE TWENTY-TWO TITLED TABLES IN THE REPORT

Table of the numeric values corresponding to the letters of the Hebrew and Greek alphabets, p. 48.	Chromatic distances between the musical intervals of PTOLEMY, p. 159.
Table I, p. 61. – Table II, p. 97. – Table III, p. 98. – Table IV, p. 99. – Table V, p. 100. – Table VI, p. 116. – Table VII, p. 127.	Generation of the diatonic scale of PYTHAGORAS, p. 160.
Table of Khmer planetary arithmology, p. 145.	Diatonic distances between the musical intervals of PYTHAGORAS, p. 160.
The 10 antediluvian kings of Babylon, p. 150.	Generation of the two chromatic scales of PYTHAGORAS, p. 161.
Star Table of the twelve Chinese musical pipes, p. 152.	Ratios between the sides of various polygons, p. 174.
Circular Table of the twelve Chinese musical pipes, p. 153.	Table of the elements of the regular polyhedrons, p. 177.
Generation of the diatonic scale of PTOLEMY, p. 158.	Properties of the circles or parts of the whorl (vision of ER the Pamphylian), p. 263, footnote.
Diatonic distances between the musical intervals of PTOLEMY, p. 159.	Proportions of the eighteen models of houses for habitation, p. 310.

THE FIVE FIGURES FORMED BY ALPHABETICAL CHARACTERS

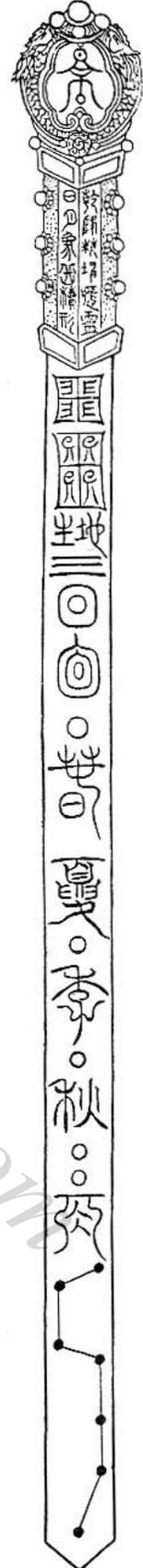
are on pages 2, 4, 54, 156 (in note), and 164.

THE SEVEN UNTITLED GEOMETRIC FIGURES

are in notes on pages 41, 42, 117, 139, 182, 231, and 314.

THE TWO ORNAMENTAL LETTERS

are on pages 1 and 356.



— The magic word ABRACADABRA provides the key to natural Architecture.

THE "GOLDEN RULE"	Its three aspects	— The <i>operative diagram</i> , verified by Tantric and Taoist doctrines, and applied to the geometric outline of the Pyramid of CHEOPS (§ 1 to VII).	
		— The <i>intermediary diagrams</i> and the <i>mediating diagram</i> , in concordance with Pythagorean and Kabalistic doctrines (§ VIII to XIV).	
		— The <i>complete diagram</i> , leading to the establishment of a geometric tau (§ XV).	
	Its seven correspondences	in the traditional sciences	ARITHMETIC. — The Chinese cosmogonic squares (§ XVI).
			ASTRONOMY. — Khmer planetary arithmology (§ XVII).
			HARMONY. — The Chinese theory of the twelve musical pipes, and the Greek scales; the universal alphabets (§ XVIII and XIX).
		in the social applications of metaphysics	GEOMETRY. — The regular division of the circle; the rhythmic numbers and the traditional pantacles (§ XX).
			STEREOMETRY. — The regular partition of the sphere; the regular polyhedrons and their reciprocal correspondences (§ XXI).
	The writings and representation of mythical, alchemical, and sacred character (§ XXII to XXIX).		
	Natural Architecture in the West, the East, and in mystical accounts. Atlantis and the Apocalypse (§ XXX to XXXIV).		

— The Great Renunciation and the Return to Unity through the divine Mother (§ XXXV).

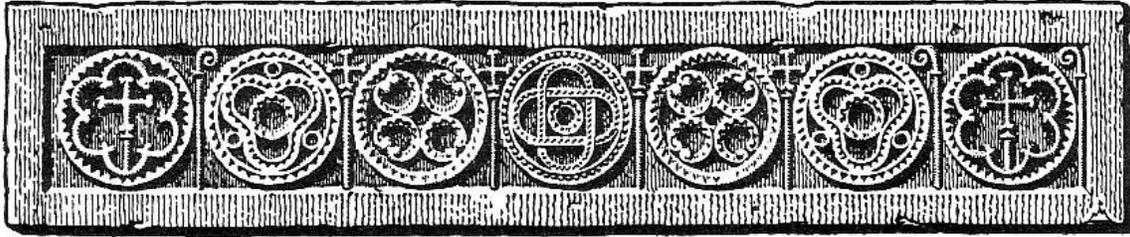
(■) Here we reproduce the plan of the Work found in the Author's notes. We have simply added to it the indication of the sections given in the Table of Contents.



THE MASTER OF THE WORK



“...Antiquam exquirite matrem.”
(VIRGIL: *Aeneid*, III, 96.)



NATURAL ARCHITECTURE

OR

**A REPORT BY PETRUS TALEMARIANUS ON THE ESTABLISHMENT OF A
“GOLDEN RULE,” ACCORDING TO THE PRINCIPLES OF TANTRISM,
TAOISM, PYTHAGOREANISM, AND THE KABALA, SERVING TO FULFILL
THE LAWS OF UNIVERSAL HARMONY AND CONTRIBUTING TO THE
ACCOMPLISHMENT OF THE GREAT WORK**

I



It was long ago that I first noticed that the builders of edifices were discontinuing the use of natural materials, and I was disquieted by the diminution of activity in the stone quarries that our ancestors traditionally exploited so fruitfully for construction. Questioning these conditions that troubled the fortunes of numerous enterprises, I sought to discover their cause, and set off to travel throughout the world, guided by the “seven spirits who stand before the throne of God.”

Having thus collected and recorded many observations, I was on the point of terminating my travels when, overcome by fatigue, I fell asleep by the roadside and dreamt that I saw a marvelous garden in the middle of the desert, surrounded by three octagonal enclosures and planted in quincunxes, in which trees bore golden apples. I went to cross the entrance in order to take some of the fruit, but a coiling green dragon blocked my access, spewing flames at me. A hundred times I tried to surprise the vigilance of the dragon with the help of the clear and distinct ideas that my masters had taught me as being of obvious efficacy; a hundred times surrounded by thick flames and striving in vain, I was forced to remain outside the enchanted enclosure. Discouraged, I was about to abandon the struggle, and was filled with doubts and confusion amidst the darkness; but then, having invoked the Archangel Saint Michael, I saw the word ABRACADABRA written in the sky, and immediately, the dragon having disappeared, an invisible force drew me into the garden of Eden. At this same moment I awoke and, well rested, reached the end of my route. I immediately began my quest for the magical power of ABRACADABRA.

NATURAL ARCHITECTURE

I already knew that this word symbolized Father, Spirit, and Word¹ or Triad; writing them out, according to their meaning, in the following triangular form:

A
 C A D
 A C A D A
 R A C A D A B
 B-R-A C A D A B R
 A-B-R A C A D A B R A

I formed all the combinations of letters, writing the words A, AB, ABR, ABRA, etc., starting at the left angle of the base, without skipping any lines and without descending.² I then substituted the last letter of the word with the number of combinations found, thus obtaining this arrangement:

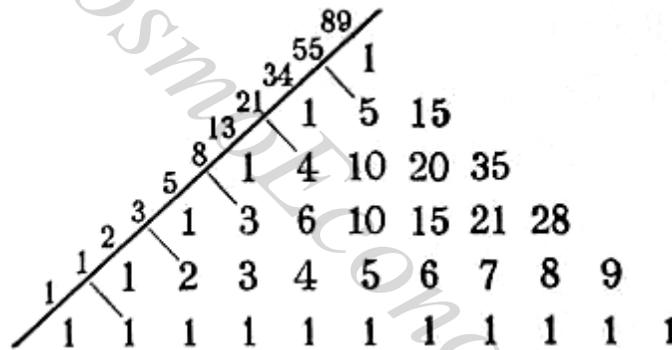


Fig. 1 — PASCAL'S ARITHMETICAL TRIANGLE AND THE FIBONACCI SEQUENCE

I immediately recognized PASCAL's arithmetical triangle.

This arrangement of numbers indicated many hidden things relating to human nature, and I located them in circumnavigating the famous ancient triangle in the direction of the earth's rotation (Fig. 2).

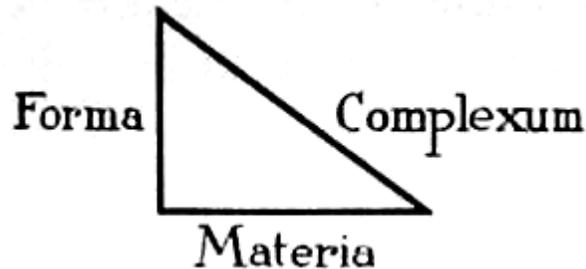


Fig. 2 — THE EGYPTIAN TRIANGLE

¹ In Hebrew: Father, *Ab* (אב); Spirit, *Rvach* (רוח); Word, *Dabar* (דבר).

² For more clarity, I used arrows to represent the three different paths to take so that the word ABRA will end with the first A of the second line.

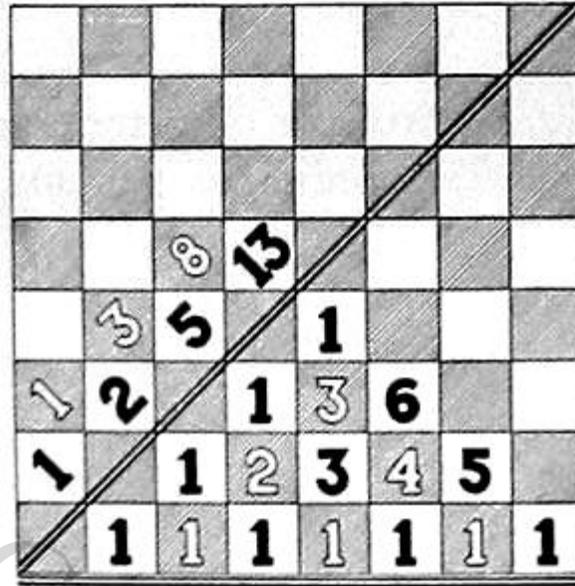


Fig. 3 — PASCAL'S ARITHMETICAL TRIANGLE AND THE FIBONACCI SEQUENCE CONFINED TO THE CHESSBOARD⁵

LAGRANGE demonstrated that every continuous periodic simple fraction can be represented by a construction with a ruler and compass. Such a construction of the continuous fraction revealed by ABRACADABRA, where only the unity appears, is the simplest possible, all multiplicity being thus excluded. To reveal this construction, I first recognized that the vowel A was represented by an isosceles triangle, all of whose angles were acute. Then, in the interest of simplicity, I naturally drew the angle that is unequal to the two others as half of each of the equal angles, such that a circle divided by 5 measures this angle.

Having placed the three vertices of this triangle upon a circle, I proceeded to inscribe four other triangles similarly and regularly on the same circle, thus forming a regular pentagonal star or pentalpha (Fig. 4).

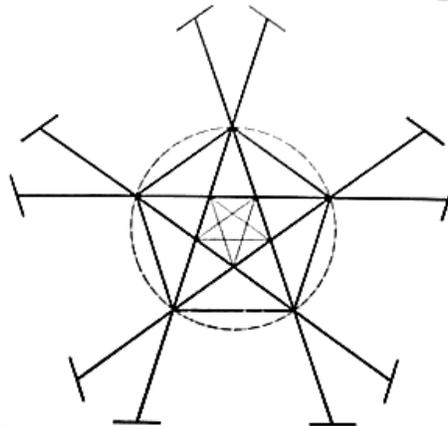


Fig. 4 — PENTALPHA (formed by five letters A)

⁵ The sum of the numbers composing the lines on one side of the diagonal, and that of the numbers on the other side, is in each case 33 (= 12 + 21 = 1 + 10 + 15 + 7).

NATURAL ARCHITECTURE

In this figure I effectively rediscovered the ratio “g” between the long and short sides of the isosceles triangle, because

$$\cos \frac{2\pi}{5} = \frac{1}{1 + \sqrt{5}} = \frac{1}{2g} .$$

Furthermore, it was easy to demonstrate that between the longest side of the triangle and the radius of the circumscribed circle, there is a ratio “h” with the value $\sqrt{1 + g^2}$, and that THE RATIO h/g IS THE RATIO OF THE SIDE OF A REGULAR PENTAGON TO THE SIDE OF A REGULAR HEXAGON WHEN BOTH ARE INSCRIBED IN THE SAME CIRCLE.⁶

Finally, the pentalpa forms a similar pentalpa at its center, inverse and consonant with the exterior pentalpa according to the divine proportion.

Thanks to ABRACADABRA I thus discovered, on the chessboard (discontinuous) and on the pentalpa (continuous), the divine proportion, symbolizing the universal analogy that rules the multiple states of being in the opposite direction, and according to which the “forma” and “materia” of the created beings are unified while still remaining distinct. I then sought to use this proportion to discover the key to the construction of edifices, conceived in a way that uses the natural stones with the maximum natural commodity and harmony.

To this end, inspired to pursue my studies, I represented Unity with a very small square, of side 1, and studied the manner by which this little square—or pole, by its own proliferation—could generate a surface of a certain area. For this reason I traced a second square, identical and adjacent to the first, and thus obtained a rectangle of module⁷ 2, called, according to the traditional language, “silver rectangle” (Fig. 5a).⁸ But I did not continue this construction, which had given me an indefinite line and not a defined surface, and I adjoined a square of side 2 to two opposite squares A and B, thus assuring their development (Fig. 5b). I then obtained a rectangle of module 3/2.

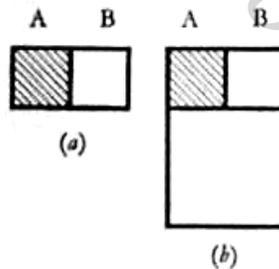


Fig. 5 — SMALL SQUARES

In the same way, one after another, I constructed a series of rectangles, almost identical to each other, whose modules were equal to the ratio of two successive numbers in the FIBONACCI sequence; and since this ratio has the number “g” (the golden number) as its limit, the small square (pole), or principle of evolution, tends in its proper proliferation to manifest itself in a rectangle of module “g” known as the “golden

⁶ The value approached by “g” is 1.6180..., that of “h” is 1.9021..., and that of h/g is 1.1756....

⁷ The module is the ratio of the long side of a rectangle to its short side.

⁸ The silver rectangle defines the ratio of mean and extreme proportion through the ratio of the sum of its diagonal and its short side to its long side: $g = (\sqrt{5} + 1) / 2$.

rectangle.” I thus saw the series of rectangles develop in such a way that the corners of the squares were situated on BERNOULLI’s logarithmic spiral, the pole of the spiral being placed at the meeting point of the orthogonal diagonals of two contiguous figures of the series, this pole being quadrupled by the symmetry of the figure along two axes, and finally merging with the position of the small square whose proliferation generated the golden rectangle (Fig. 6).

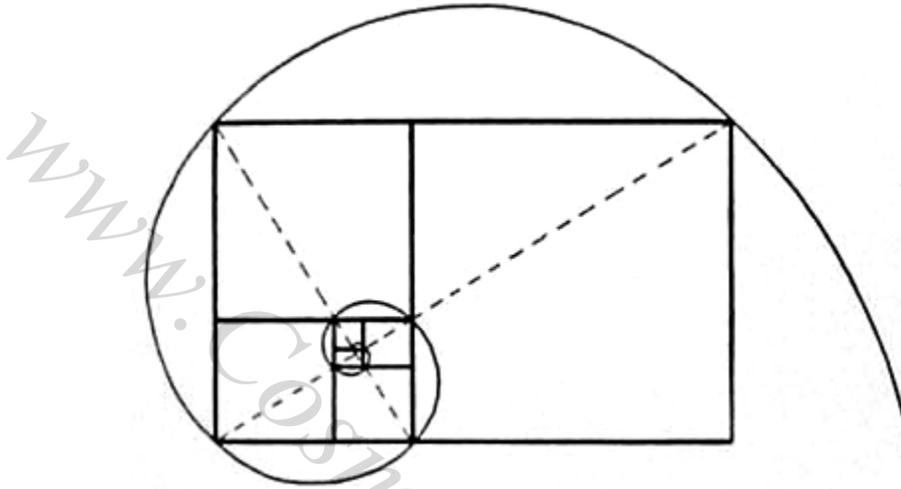


Fig. 6 — THE LOGARITHMIC SPIRAL TANGENT TO THE CORNERS OF THE REVOLVING SQUARES

Working in this way, bit by bit, I forged the key to open the door to the temple of Natural Architecture. First, I wanted to make the house symmetrical according to the positioning of the parts of the human body, that is to say by breadth alone and not by depth or height.⁹ To this end, tracing each symmetrical façade around a vertical axis, I drew the sides of the edifice as identical, the façades as differing, and the roof as sloping.

It has been said with good reason that the concrete being is an existing one, realization of an essence, its immediate principle, enveloped by the realizing substance; therefore, the plans of houses constructed in the image of nature should be divided into squares signifying the principle of the existing, then into golden rectangles signifying the existing itself. They should then be surrounded by gardens whose ground plan is a silver rectangle symbolizing the realizing substance.

I saw also that in plans, private houses had the ratio of golden rectangles generating one another and formed by a number of small elementary squares defined by the FIBONACCI sequence, and that they were divided into three orders, as follows: order *B* with five small squares along the façade and three along the sides, order *D* with eight small squares along the façade and five along the sides, and order *G* with thirteen small squares along the façade and eight along the sides, this order having as its complement order *F*, whose plan, in a horseshoe shape like that of order *G*, is inscribed in a square of thirteen small squares per side.

⁹ “Symmetry, in what one sees at a glance, is based upon that which cannot be reasonably done otherwise, and also based upon the human figure, whence it comes about that one only sees symmetry in breadth, not in height or depth.” (PASCAL, *Pensées*, 28).

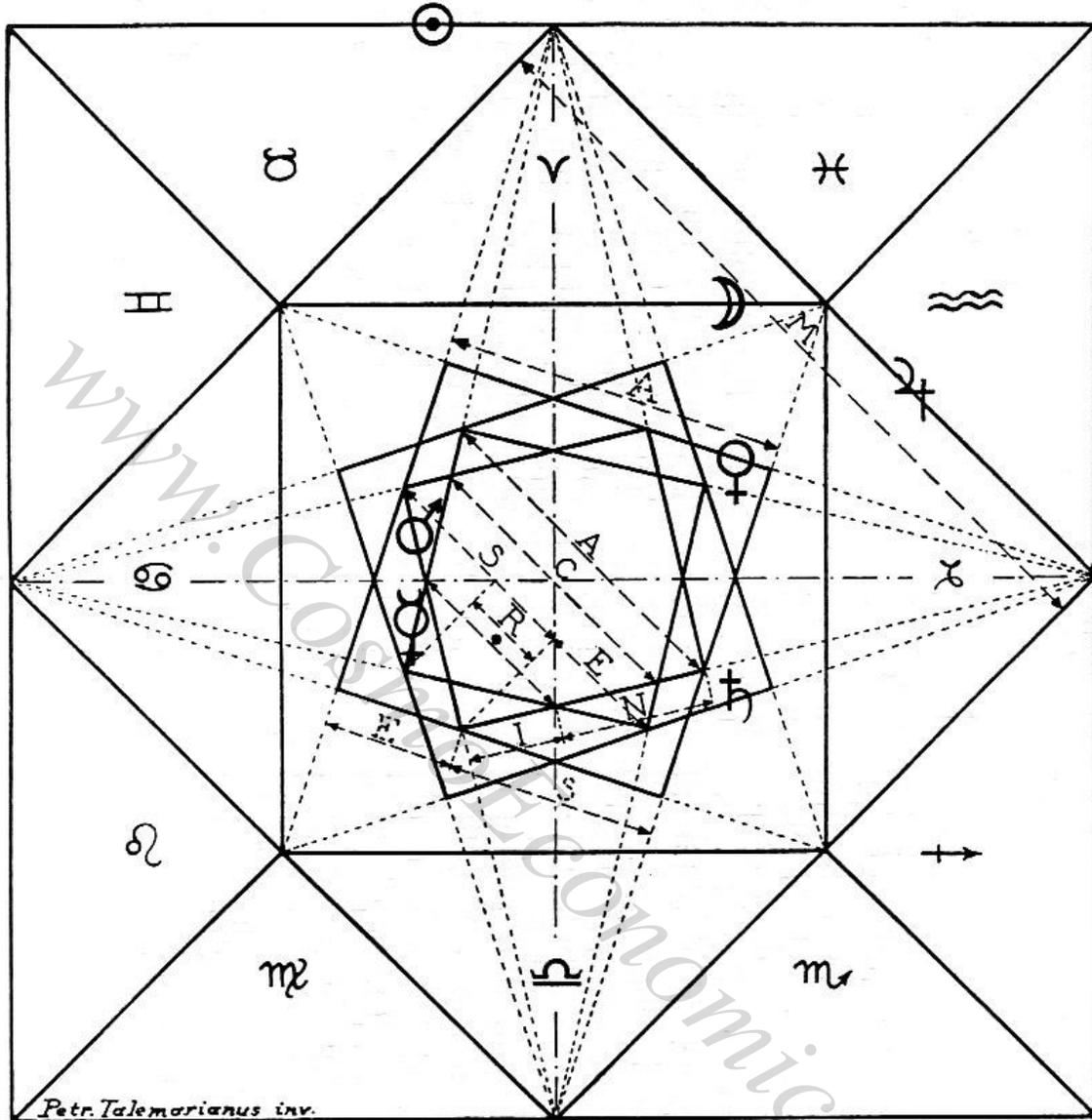


Fig. 9 — THE OPERATIVE DIAGRAM OF TWELVE TRIANGLES AND SEVEN SQUARES, DETERMINING THE EIGHT CONSTRUCTIVE RATIOS.¹³

Besides the given square, I was led to design two supplementary squares:¹⁴ an exterior square, the middle of whose sides coincides with the corners of the given square, and an interior square whose corners coincide with the middle of the sides of the given square. Then, orienting the corners of the given square toward the cardinal points, I drew four normal straight lines at the middles of its sides, issuing forth like rivers; I thus obtained the desired pantacle, formed from seven squares and twelve triangles (Fig. 9). Just as the seven unequal squares were composed of two distinct groups—one group of

¹³ To facilitate the reading of the planetary and zodiacal symbols which the Author will employ continually hereafter in his "report," a complete key to them is given, as well as a key to the symbols for the elements, on p. 437.

¹⁴ The value of this intuition appeared to me later (see p. 73).

NATURAL ARCHITECTURE

Although the “Trimûrti” rules Manifestation in its entirety, each of its three terms rules more particularly one of three Worlds; but this regency varies according to the point of view from which one sees things. From the point of view of intrinsic activity, SHIVA, governing the ascending activity of “sattva,” rules in particular the world of “Svar,” where the action of this “guna” dominates. BRAHMA, governing the expansive activity of “rajas,” rules in particular the world of “Bhuvas,” where the action of this “guna” dominates. VISHNU, governing the delimiting activity of “tamas,” rules in particular the world of “Bhû,” where the action of this “guna” dominates.

But, from the point of view of extrinsic activity, BRAHMA, through his ordering function, which gives the existing its suitable place in the cosmos, can be considered from the static point of view; thus he governs the agglomerative activity of “tamas” and rules over the world of “Bhû.” VISHNU, whose conserving function preserves the life of the existing, can be considered from the dynamic point of view; thus he governs the expansive and realizing activity of “rajas” and rules over the world of “Bhuvas.”

Remember, he added, that the triple Trinity, or Ennead, has left its mark upon all traditional works, and that notably, its geometric construction is composed of two closed triads (opposite equilateral triangles) and one open triad (a limited straight line consisting of a beginning, a middle, and an end) (Fig. 10).

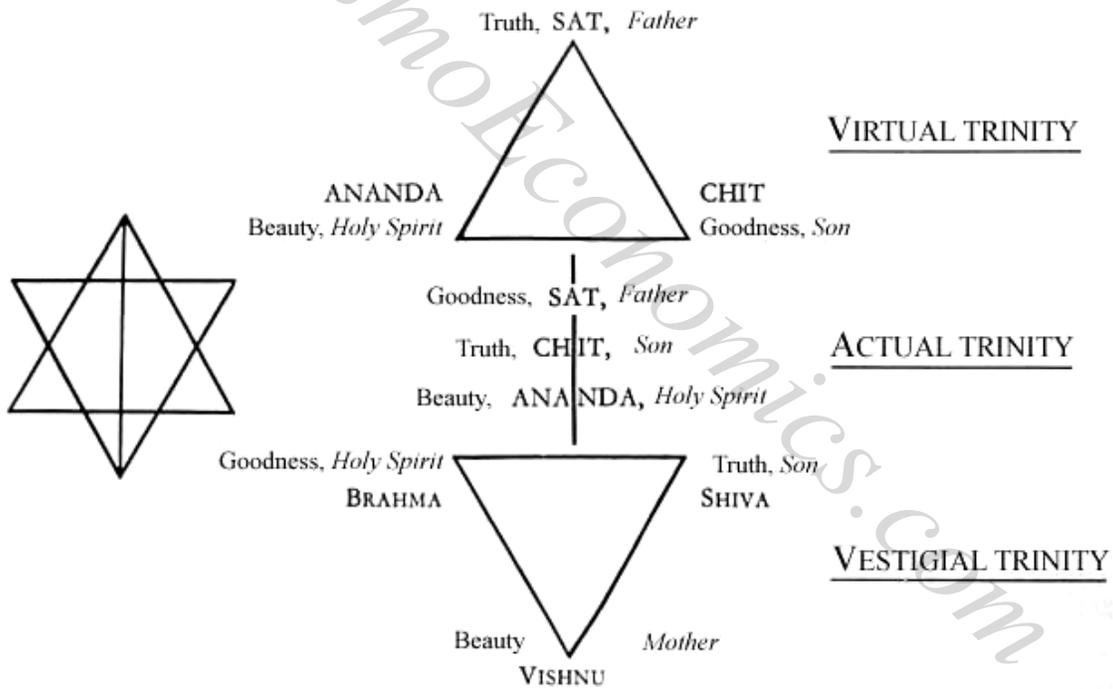


Fig. 10 — THE TRIPLE TRIAD

At this point in his speech, Aklishtakar presented to me a diagram, which is reproduced below (Fig. 11). Not only, he said to me, will you find a synthesis of the various principles in their mutual relationships, which are the source of the entirety of manifestation, but you will also see illustrated here the succession of the principal aspects of the “Shakti” that constitute the basis of Hindu Tantrism; their study is very important for anyone who wishes to do constructive work.

NATURAL ARCHITECTURE

corresponded, through the number of marbles composing them, to the following series of numbers that are called “triangular”: $1, 1 + 2, 1 + 2 + 3, 1 + 2 + 3 + 4$, etc., which gives, reduced theosophically,⁴² term by term, the indefinite series of nine numbers $1, 3, 6; 1, 6, 3; 1, 9, 9 \dots$ in which two ternary numbers (Svar) succeed a quaternary number (Bhû), imitating the transformations of the “Yin-Tang” ($3, 6 - 6, 3$) and the fixedness of the “T’ai ki” ($9, 9$).

I then envisaged the quaternary as a series of squares formed from regularly spaced marbles (Fig. 14). These squares corresponded, according to the number of marbles composing them, to the following series of numbers known as “square”: $1, 2^2, 3^2, 4^2$, etc., which yields, reduced theosophically, term by term, the indefinite series of nine numbers: $1, 4, 9; 7, 7, 9; 4, 1, 9 \dots$ in which a ternary number (Svar) succeeds two quaternary numbers (Bhû), and thus the opposition of “Svar” and “Bhû” becomes apparent, as does the obscuration of the celestial world by the world of gross matter.

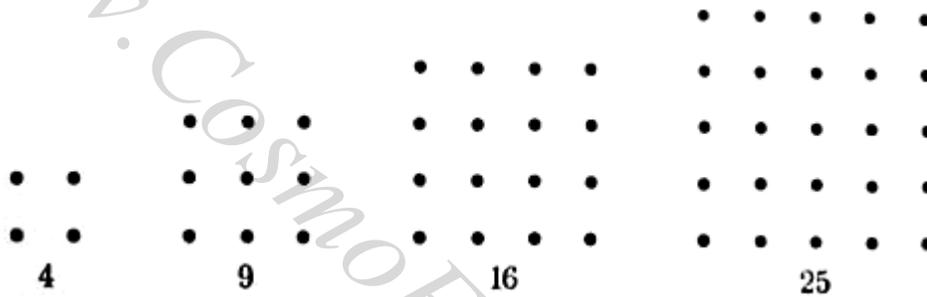


Fig. 14 — SQUARE NUMBERS

Finally, I envisaged the quinary, attributed to “Bhuvas,” as a series of pentagons formed by marbles regularly spaced (Fig. 15). These pentagons correspond, according to the number of marbles composing them, to the following series of numbers known as

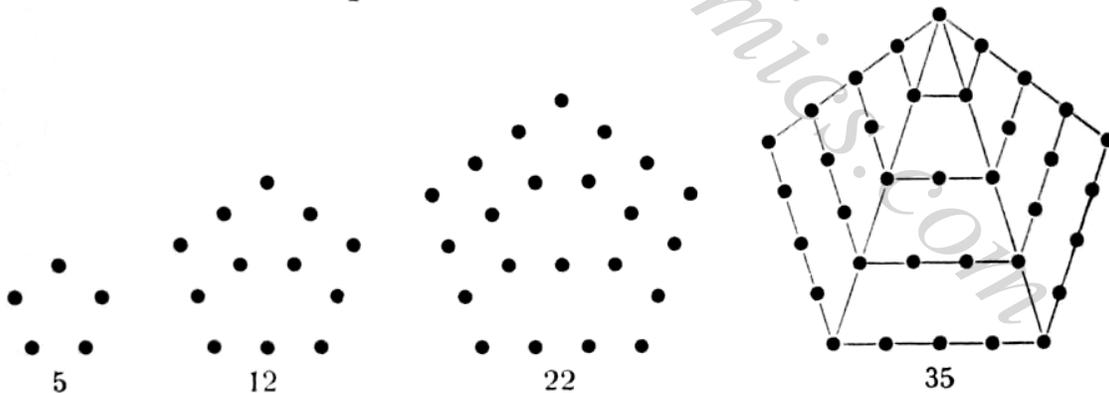


Fig. 15 — PENTAGONAL NUMBERS

⁴² Theosophical reduction consists of reducing each number to a number less than 10, forming the sum of the numbers that constitute it; example: 365 reduced theosophically is 5, because $3 + 6 + 5 = 14$ and 14 reduces to $5 (= 4 + 1)$.

Theosophical addition consists of adding all the consecutive whole numbers that a given number contains; example: 4 added theosophically equals $10 (= 1 + 2 + 3 + 4)$.

NATURAL ARCHITECTURE

“pentagonal”: 1, 5, 12, 22, 35 ..., whose primary differences reproduce the series of the quaternary: 1, 4, 7, 10, 13 ... and whose secondary differences reproduce the ternary: 3, and which, reduced theosophically, term by term, yields the indefinite series of nine numbers 1, 5, 3; 4, 8, 6; 7, 2, 9; 1, 5, 3 ... where the quinary (Bhuvās) (5, 8, 2) appears as the mediator between the quaternary (Bhû) (1, 4, 7) and the ternary (Svar) (3, 6, 9).⁴³

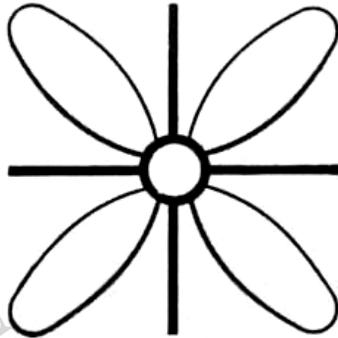


Fig. 16 — THE SHRIVATSA⁴⁴

⁴³ These pentagonal numbers oppose, in completing them, the other pentagonal numbers 2, 7, 15, 26 ... which cannot be represented by the marbles, whose secondary differences are all 3 and whose primary differences reproduce the quinary series: 2, 5, 8, 11 ..., and which, reduced, theosophically, yield the same indefinite series of nine numbers as before, but in inverse order, thus: 2, 7, 6; 8, 4, 3; 5, 1, 9; These two number series, reduced to five terms, with the corresponding primary and secondary differences, contain the majority of the principal traditional numbers.

1	5	12	22	35		2	7	15	26	40
4	7	10	13			5	8	11	14	
	3	3	3				3	3	3	

⁴⁴ This figure, also analogous to that of the American Indians included on p. 142, is considered among the Indians as a sign of happiness; it represents the directions of space: principal “active” directions, with a single line, and secondary “passive” directions, with a double line forming a petal. This is one of the 11 attributes of VISHNU seated upon a lotus with 8 leaves.

NATURAL ARCHITECTURE

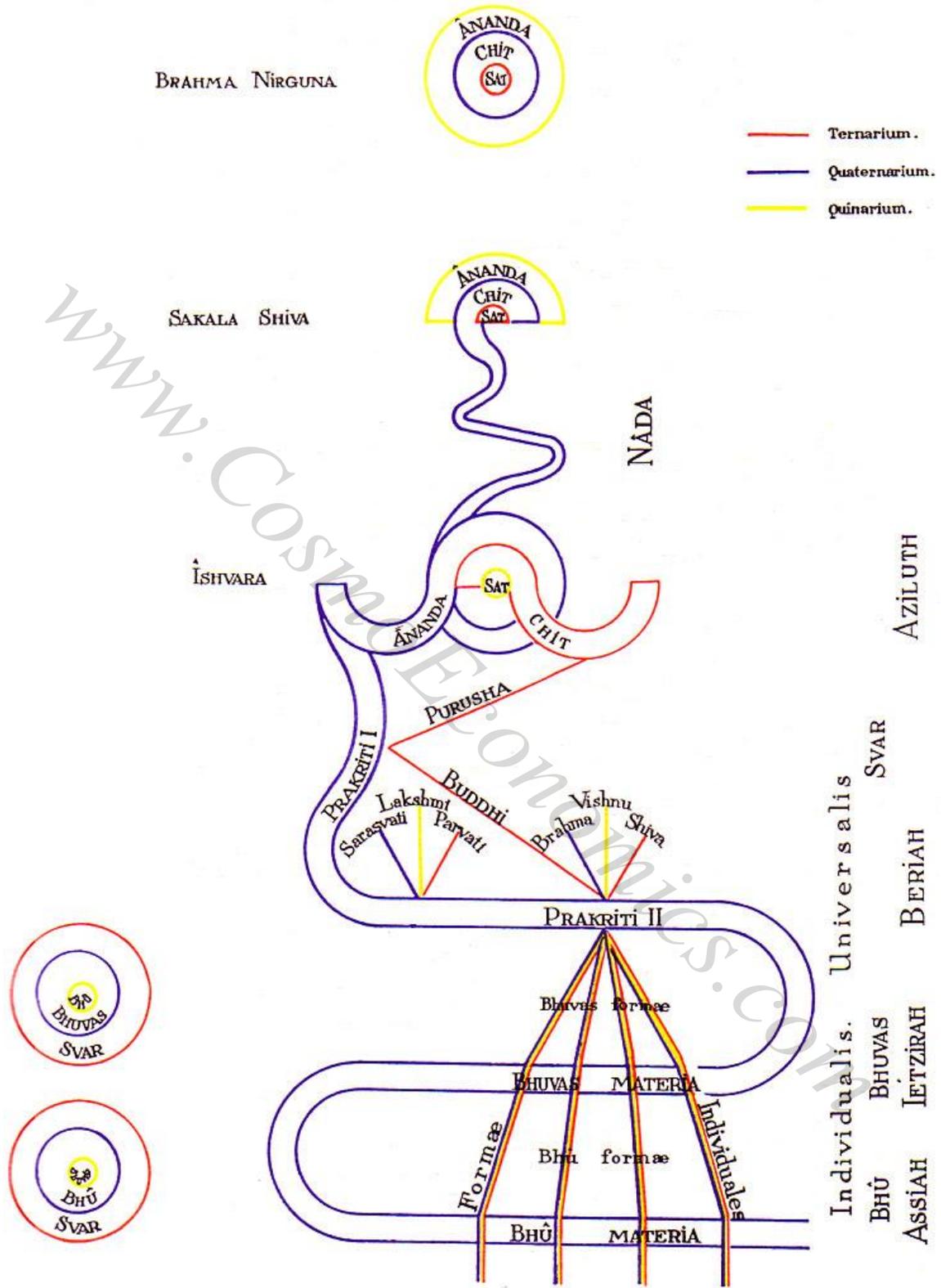


Fig. 11 — AKLISHTAKAR'S DIAGRAM

NATURAL ARCHITECTURE

the lengths of the various corridors in the Great Pyramid. The circuit starting at the entrance to the descending corridor, going to the bifurcation, then to the entrance to the corridor of the Queen's chamber, then to the entrance to the subterranean chamber, and from there, finally, back to the starting point, had a length equal to that of the base of the Pyramid. On this circuit, the entrance to the corridor of the Queen's chamber and to the Grand gallery was midway between the starting point and the entrance to the subterranean chamber. The entrance to the Queen's chamber and the entrance to the subterranean chamber were the same distance from the entrance to the Pyramid.

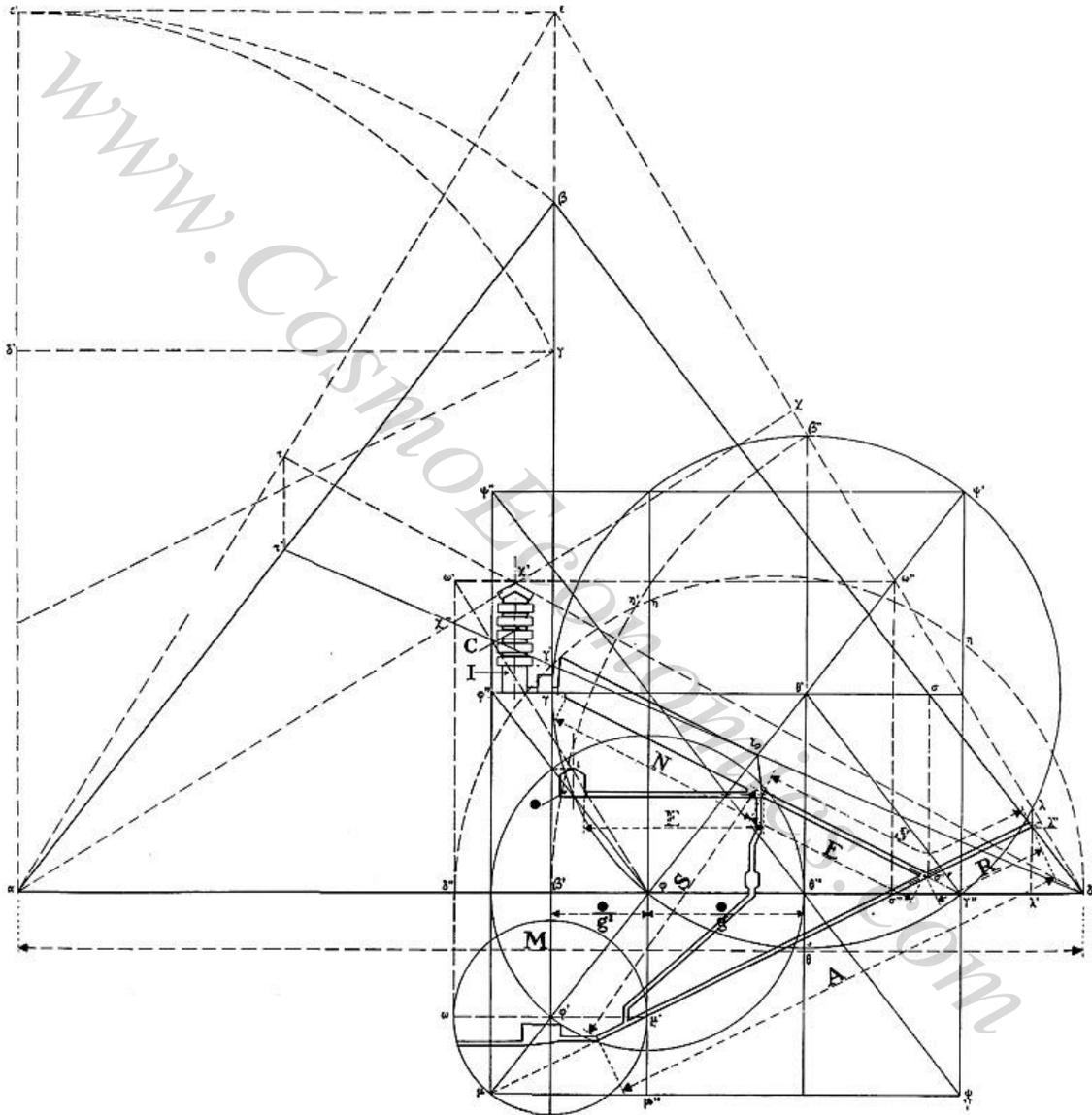


Fig. 21. — OUTLINE OF THE INTERIOR CHAMBERS AND CORRIDORS OF THE GREAT PYRAMID, CONSTRUCTED WITH THE RULER AND COMPASS.

A similarity of disposition and proportions exists between the magic rectangle of the Great Pyramid (see fig. 22) serving to determine the chambers and interior corridors of the monument, and the ornamentation of one of the faces of certain "Shuji mandara" of the Japanese Buddhist "Shingon" sect.

A "Shuji mandara" is a mystic ritual image, a sort of symbolic diagram with two faces, which serves to express the unity and multiplicity of the Universe (interior and exterior of the Cosmos, "world of diamond"

NATURAL ARCHITECTURE

and “matricial world”). These faces are always decorated with many Sanskrit letters, representing the divinities.

One of the faces of the aforementioned “mandara,” that of the exterior, has in its middle a lotus flower with 8 radiating petals, at the center of which the Sanskrit letter A represents the “Great Illuminator” (see illustration, p. 45); this flower may thus represent the 8 constructive ratios of ARSENIC●M obtained through the folding of the faces (or exterior) of the Pyramid, which were red with gold corners.

The other face, that of the interior, represents a rectangle, divided into 9 equal rectangles, whose module \sqrt{g} is the same as that which, in the present figure, serves as the outline of the interior of the Great Pyramid. (*Editor’s note.*)

My attention was next drawn to the fact that there was an inverse analogy between the metaphysical attributions of the letters of ARSENIC●M and the geometric position of the elements whose length these letters determined in the section of the Great Pyramid. Thus, for the universal lengths C, ●, and M, the Universal Orderer C, Regent of “Bhû,” defined the final goal of the route traced in the interior of the Great Pyramid; the Universal Determiner M, Regent of “Svar,” defined the base of the Pyramid; and the Universal Formator ●, Regent of “Bhuvas,” being at the middle, altered nothing. Likewise, A and R, corresponding to the most elevated of the general attributes, measured the descending corridors leading to the inferior World; N and I, corresponding to the general ordering attributes in the inferior World, measured constructions corresponding to the “Trimûrti” more particularly under the aspect of the great Regents; S and E, corresponding to the general realizing ordering attributes, intermediaries between the preceding, remained, in the same fashion as ●, linked to the same subject.

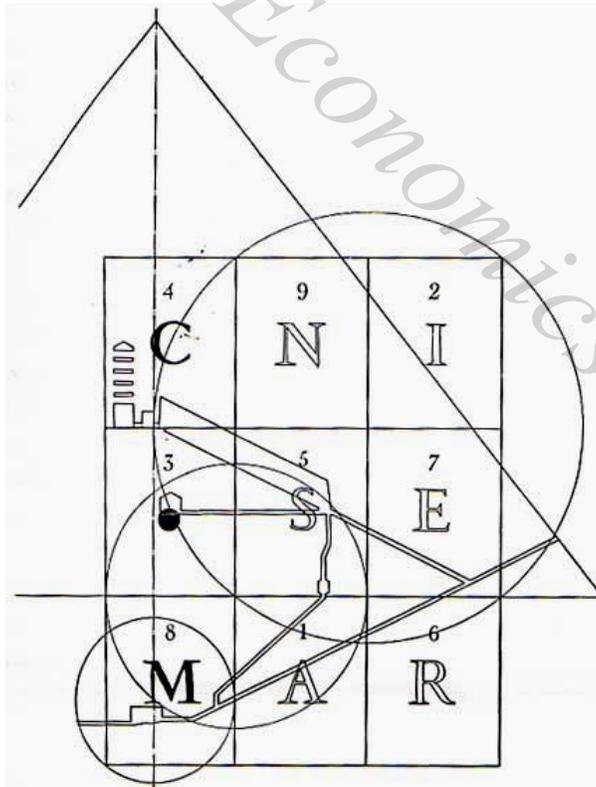
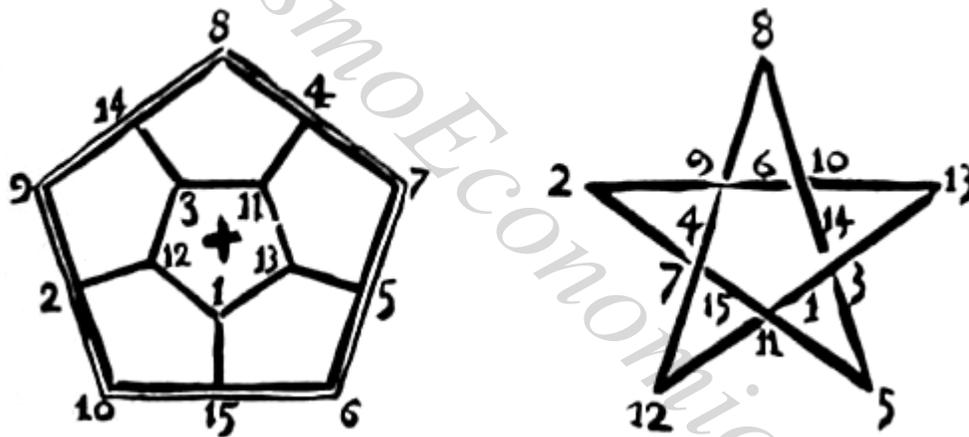


Fig. 22. – MAGIC RECTANGLE OF THE GREAT PYRAMID OF CHEOPS with the letters of ARSENIC●M and the numbers of the magic square of constant 15.

Finally, knowing that the High and the Right are “Yin” just as the Low and the Left are “Yang,”¹⁰³ I assigned each of the nine letters of ARSENIC•M to one of the squares on the magic rectangle (fig. 22), placing “Svar” to the left, “Bhuvas-Bhû” to the right, that which related to “Svar” below, and that which related to “Bhû” above; also, I made each square of the rectangle correspond to one of the first nine numbers, arranged in the traditional order of the magic square of 5, dedicated to h . The figure thus obtained allowed me to see, remarkably, that the number 40, being the sum of the numbers written in the two groups of rectangles—one inscribed in the large circle, the other circumscribed around the middle circle—unified these two circles in this way, and served as mediator between the Worlds of “Svar” and “Bhû.”

To all this were added some of the more fundamental properties of the Pyramid of CHEOPS. Namely, the rules of its construction gave the following approximate relationships: the surface of its double section or interior (Yang) was the surface of a circle (Yang) whose radius was equal to the side of the square (Yin) inscribed in a circle of diameter equal to the height; the area of its four faces or exterior (Yin) was the area of a square (Yin) circumscribed around a circle (Yang) of radius equal to the height.



PENTAGON AND PENTALPHA¹⁰⁴

¹⁰³ The physiologist BROWN-SÉQUARD considered the association of the direction from below to above, and from left to right, to be normally dynamogenic (I call this “Yin”); inversely, he considered the association of the direction from above to below, and from right to left, to be normally inhibitory (I call this “Yang”).

¹⁰⁴ These two figures show the correspondence of the number 40 with the quinary (see p. 121) and with the number 15; points on them are numbered 1-15 in a certain order.

On the pentagon (formed from 6 pentagons placed together), the sum of the numbers at the corners of the large pentagon is 40, as is the sum of the numbers at the corners of each of the 6 small pentagons. If, in these two figures, one constructs a triple circular enclosure by drawing the circles passing through the numbered points, then the sums of the numbers encountered by each circle all equal 40, namely:

1°) – for the figure on the left, a first circle circumscribed around the exterior pentagon and passing through the corners: 8, 9, 10, 6, 7; a second circle inscribed in the exterior pentagon, therefore tangent to the middle of each side: 14, 2, 15, 5, 4; and a third circle circumscribed around the central pentagon and passing through the corners: 3, 12, 1, 13, 11;

2°) – for the figure on the right, a first circle passing through the corners of the pentalph: 8, 13, 5, 12, 2; a second circle circumscribed around the central pentagon: 10, 3, 11, 7, 9; and a third circle inscribed in this same pentagon: 6, 14, 1, 15, 4.

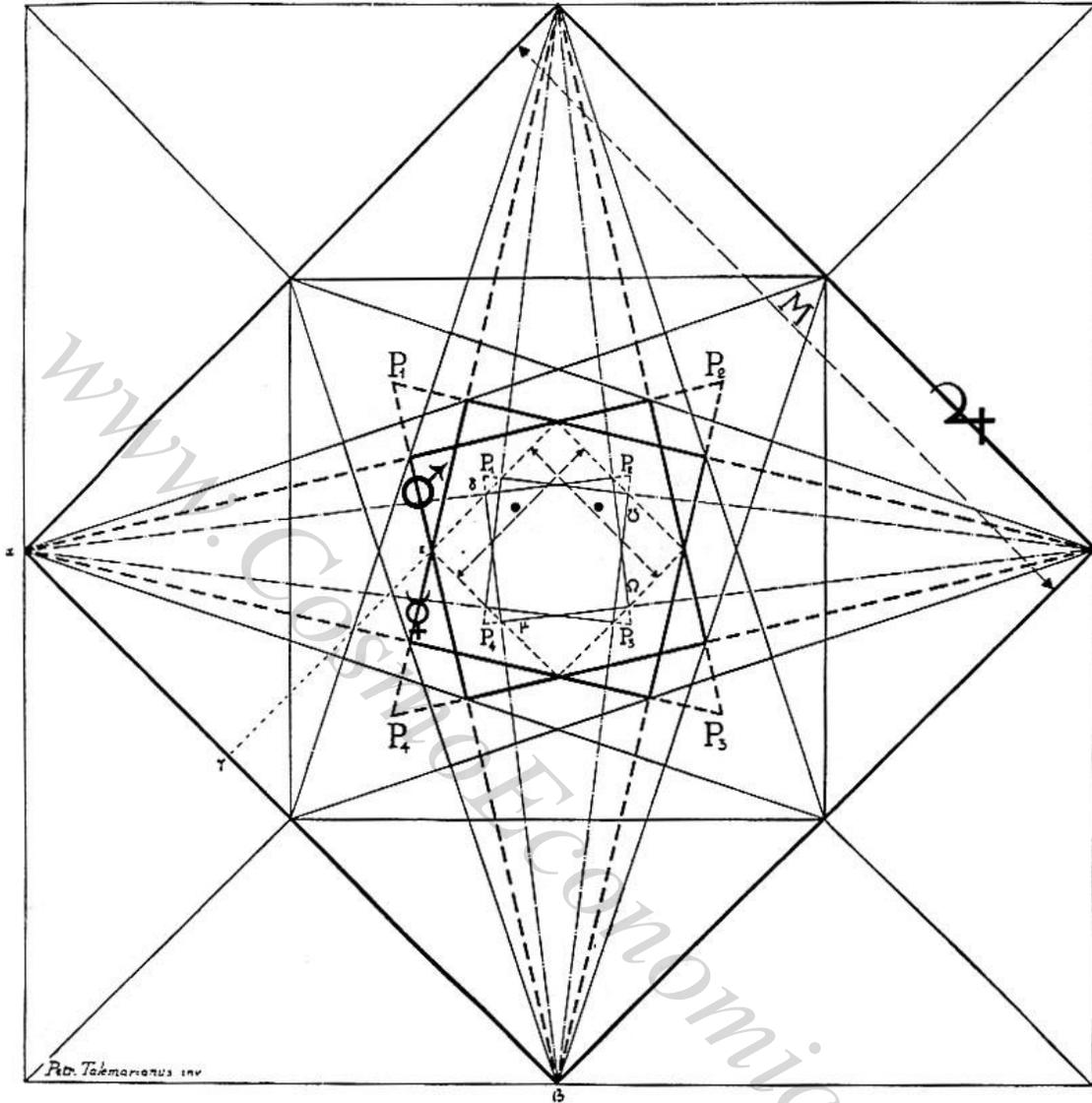


Fig. 24. – THE INTERMEDIARY DIAGRAM ON TRIANGLES showing the layout of the folding of the faces of the Great Pyramid upon their base, and the faces of a pyramid equal in its sections to the pyramid of CHEOPS.

The virtual square, center of the figure, the two divine squares, and square ● were the geometric symbols of certain Principles of Manifestation described by AKLISHTAKAR. The virtual square related to the actual “Sat,” whose “Shakti” (Chit-Ananda) was represented by the two divine squares; square ●, enveloping and exteriorizing these three squares, reestablished their unity as a reflection and symbolized the Principial Being, emanation of “Sat.” Thus, square ● was the emanation of the center of the figure, just as square ⊙ (Principial Essence) and square ८ (Principial Substance) were the emanations of the divine squares.¹⁰⁹ Square ८ (Buddhi) was like a reflection of square ● (Principial

¹⁰⁹ Square ●, representing the Principial Being, synthesizes, in exteriorizing them, the two complementary poles (divine squares) obtained by the analysis of the Principle (virtual square); the divine squares and the virtual square thus constitute the interiority of Being (the three intellectual “Sephiroth” of the Kabala).

NATURAL ARCHITECTURE

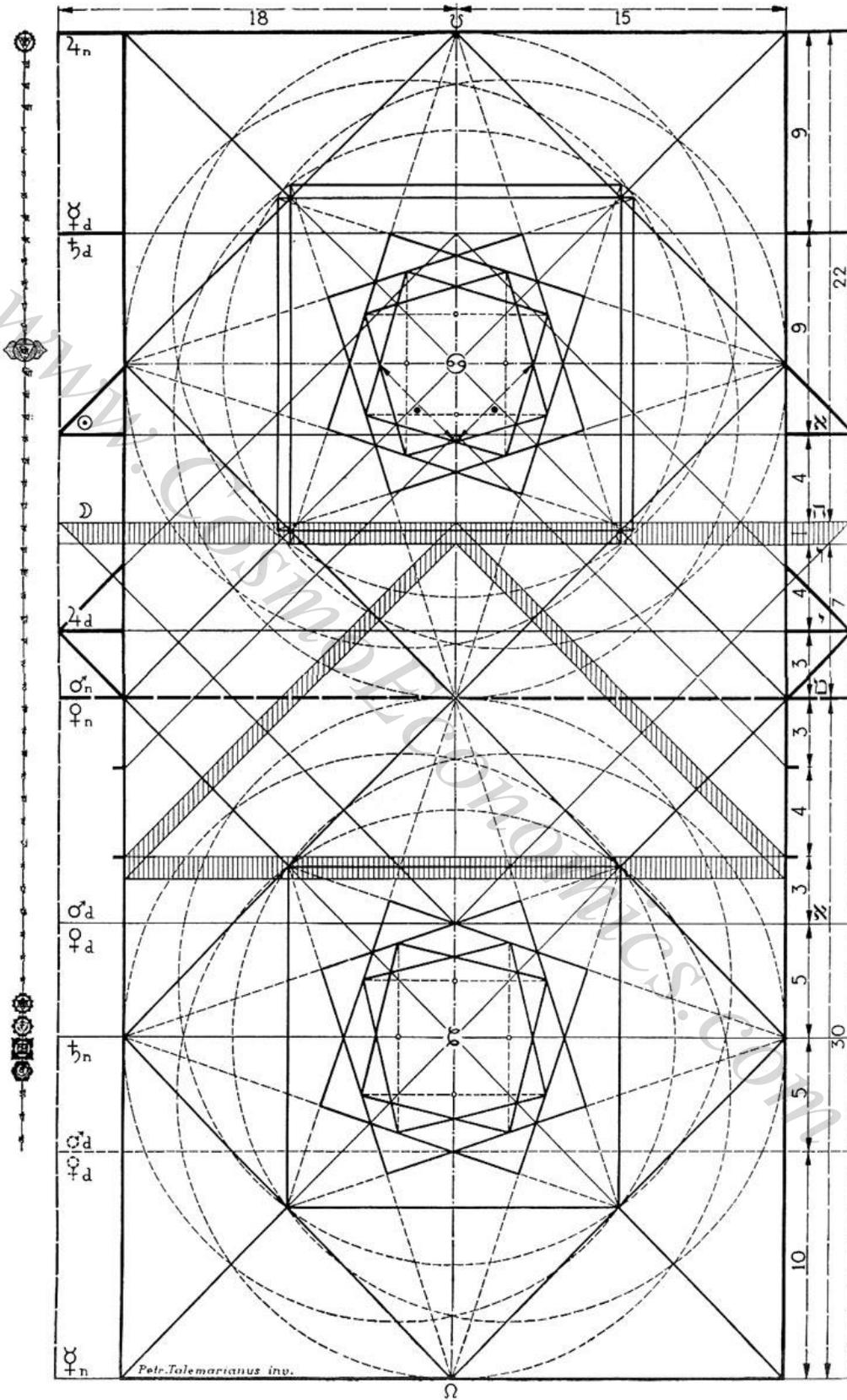


Fig. 27. – THE MEDIATING DIAGRAM

XI

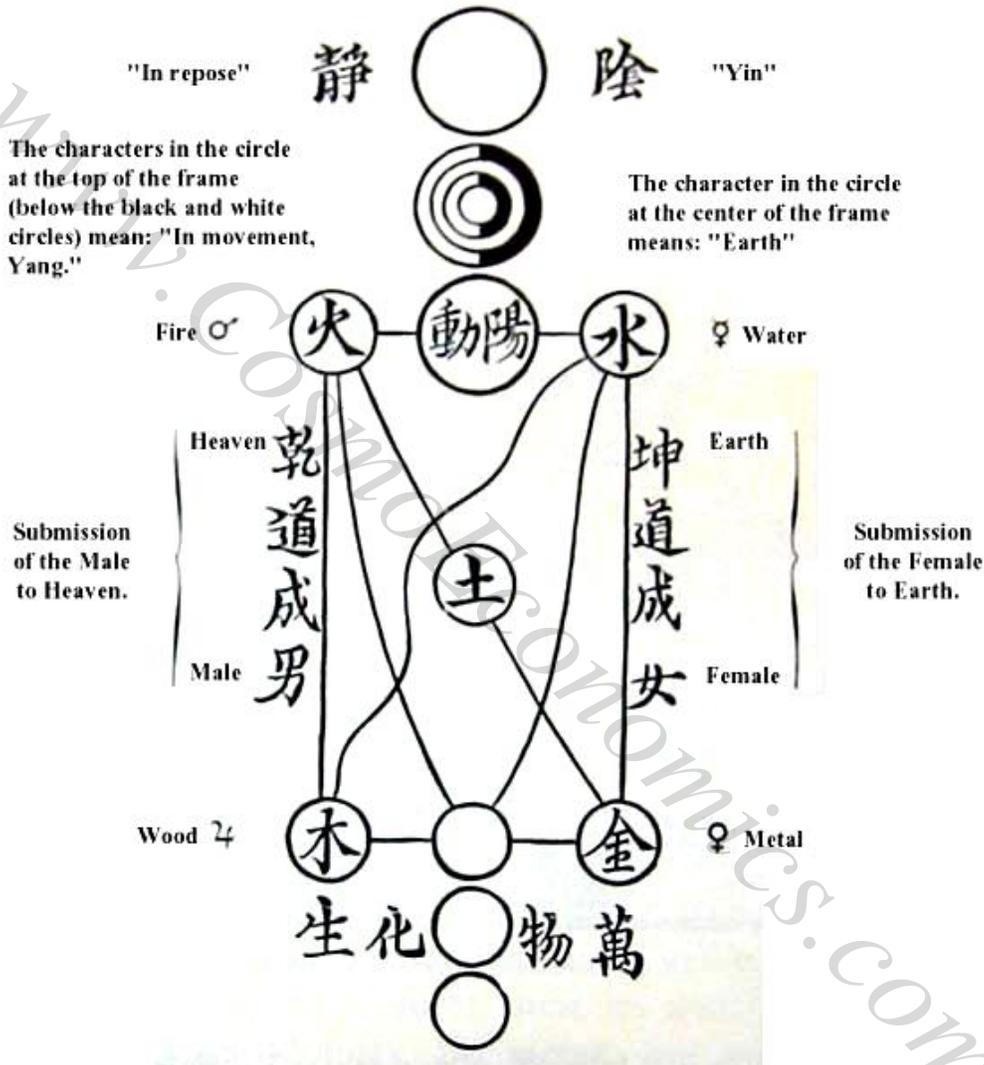
With the aid of the results of these calculations I drew up Table II below, enumerating the eight ratios of ARSENIC•M given by the distances between the various points of the “forma” squares in the lower part of the mediating diagram. First of all, I set out the four ratios relative to letters A', S', E', and R' obtained on the sides of the large interior squares which, symbolizing the “materia,” could not legitimately serve as a norm. To these I added the value of the errors of all these distorted lengths, compared to the exact lengths provided by the operative diagram (fig. 9).

TABLEAU II		
$\frac{M}{A_2} = \frac{\sqrt{50}}{\sqrt{10}} = \frac{18}{18} \times \sqrt{5}$	$A_2 = A$	
$\frac{M}{S_2} = \frac{\sqrt{50}}{\sqrt{10}} \times \frac{18}{11} = \frac{18}{11} \times \sqrt{5}$	$S_2 = S - 1,13\% \text{ of } S$	
$\frac{M}{E_2} = \frac{\sqrt{50}}{\sqrt{10}} \times \frac{18}{7} = \frac{18}{7} \times \sqrt{5}$	$E_2 = E + 1,80\% \text{ of } E$	
$\frac{M}{R_2} = \frac{\sqrt{50}}{\sqrt{10}} \times \frac{18}{4} = \frac{18}{4} \times \sqrt{5}^{(*)}$	$R_2 = R - 6,23\% \text{ of } R$	
$\frac{M}{A_2} = \frac{\sqrt{50}}{\sqrt{2}} \times \frac{9}{20} = \frac{18}{8}$	$A_2 = A - 0,63\% \text{ of } A$	
$\frac{M}{S_2} = \frac{\sqrt{50}}{\sqrt{50}} \times \frac{18}{5} = \frac{18}{5}$	$S_2 = S + 0,50\% \text{ of } S$	
$\frac{M}{E_2} = \frac{\sqrt{50}}{\sqrt{50}} \times \frac{18}{3} = \frac{18}{3}$	$E_2 = E - 2,50\% \text{ of } E$	
$\frac{M}{R_2} = \frac{\sqrt{50}}{\sqrt{50}} \times \frac{9}{1} = \frac{18}{2}$	$R_2 = R + 5,25\% \text{ of } R$	
$\frac{M}{N_2} = \frac{\sqrt{50}}{\sqrt{10}\sqrt{170}} \times \frac{144}{5} = \frac{144\sqrt{5}}{5\sqrt{170}}$	$N_2 = N + 0,82\% \text{ of } N$	
$\frac{M}{I_2} = \frac{\sqrt{50}}{\sqrt{10}\sqrt{170}} \times \frac{144}{3} = \frac{144\sqrt{5}}{3\sqrt{170}}$	$I_2 = I - 2,16\% \text{ of } I$	
$\frac{M}{C_2} = \frac{\sqrt{50}}{\sqrt{50}} \times \frac{89+1}{34} = \frac{89+1}{34}$	$C_2 = C - 1,10\% \text{ of } C$	
$\frac{M}{\bullet_2} = \frac{\sqrt{50}}{\sqrt{50}} \times \frac{144}{34} = \frac{144}{34}$	$\bullet_2 = \bullet + 0,02\% \text{ of } \bullet$	

TABLE II

(*) The series 18, 11, 7, 4, which appears in the four ratios relative to the “materia” squares, was constituted by the sum of two FIBONACCI sequences, shifted forward by two terms: 18 = 13 + 5, 11 = 8 + 3, 7 = 5 + 2, 4 = 3 + 1 (see note, p. 68).

through relation to some other "Sephiroth." Thus "Thiphereth," centralizing and unifying focus of the first six inferior "Sephiroth," is more particularly the synthesis of the exterior of the Sephirothic Tree. In some way "Iesod," in intimate relations with "Daath," and through it a secondary reflection of "Kether," synthesizes, like "Kether" itself, the three superior "Sephiroth," being moreover the focus from which everything that produces the Manifest radiates. "Malkuth," limit and summary of the entire Sephirothic Tree, synthesizes the union between the interior and exterior.



THE BIRTH AND TRANSFORMATION OF THE TEN THOUSAND BEINGS¹⁵²
 (Engraving from the "Taoist Canon.")

The functions of squares \ominus , ㄣ , and ㄩ were of the same nature. Square \ominus synthesized the six other squares which, apart from the center, the two divine squares, and square \bullet , constituted the intermediary diagram on triangles, because it was possible to use it as a starting point to explain the geometric construction of these six squares, and thus to obtain the nine lengths represented by the letters of ARSENIC \bullet M and the eight

¹⁵² This Taoist image is very similar to the Sephirothic Tree of the Kabala, but it presents such a copenetration of symbols that it is difficult to analyze it completely by the discursive methods of the West.

XV

CONSIDERING THE STUDY of the mediating diagram to be completed, in which I had made it evident that all reality in the universal World of “Svar” (diagram with eleven elements constructed on triangles) had a reflection in the individual Worlds of “Bhuvas” and “Bhû” (diagram with eleven elements constructed on pentalphas), and that an intermediary (mediating diagram dedicated to the “Shakti” \mathcal{D}) connected these two poles, the idea came to me that to the operative diagram, with seven squares and one center, there must correspond a complete diagram, in which the eight elements of the initial diagram would each have an analogue, and that the diagram with eleven elements, which I had discovered in the second place, was the intermediary between these two diagrams,¹⁶⁸ because in it the three exterior squares of the initial diagram were doubled by the two divine squares and square \bullet . I therefore sought to trace four new squares, analogous to squares ♀ , ♂ , h , and ♀ , and symbolizing the formal principles of Manifestation, both subtle and gross.

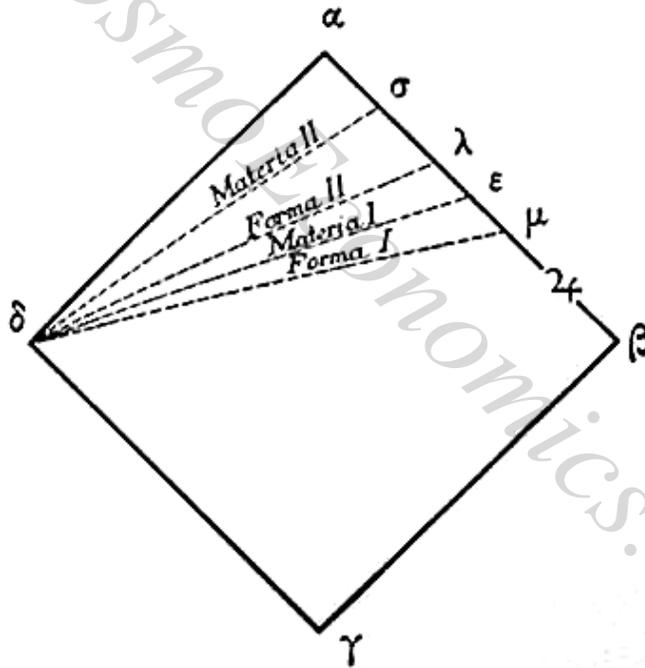


Fig. 30. – CONSTRUCTION PRIOR TO THE COMPLETE DIAGRAM

To reveal the geometric realization of these new squares, I noticed that in the initial diagram (fig. 8 and 9), the “forma” squares were constituted by the diagonals (such as $\delta\mu$) of the golden rectangles, and that the “materia” squares were constituted by the diagonals (such as $\delta\epsilon$) of the silver rectangles.

¹⁶⁸ It was natural that a diagram with eleven elements should serve as intermediary between diagrams with eight and six elements, because the differences between the elements of the middle diagram and those of the extreme diagrams were the numbers 5 (= 16 – 11) and 3 (= 11 – 8) of the FIBONACCI sequence.

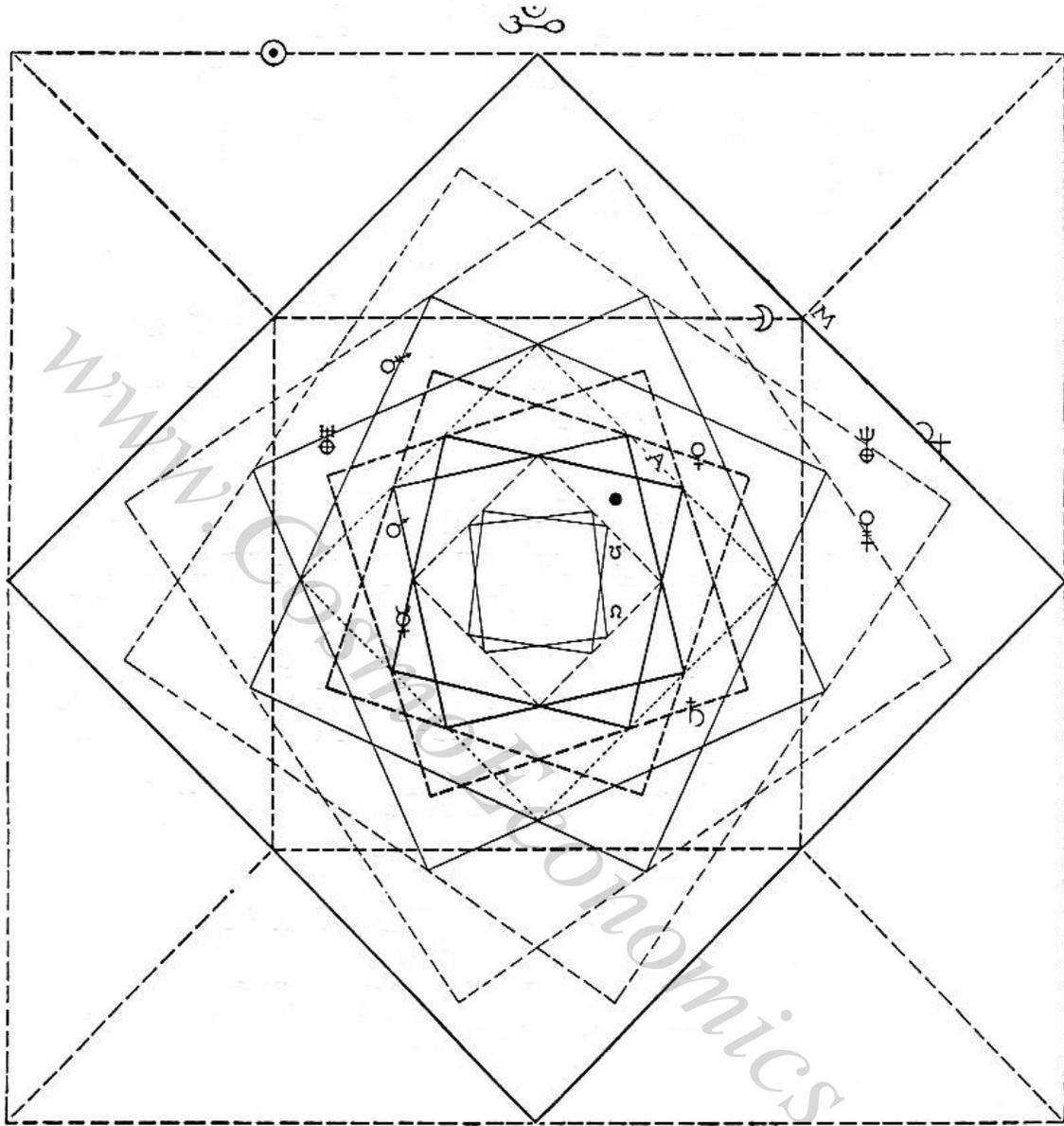


Fig. 31. – THE COMPLETE DIAGRAM

Several other geometric properties emerged in the complete diagram. First, it was easy to see that one side of a “forma” square (♂, for example) and its extension passed successively through the seven points of intersection (of which one repeated) of squares ♂ and 4, D and 7, 7 and 8, ♀ and A, ♀ and •, ♀ and A, 7 and 8, and ♀ (extended) and 7, and that therefore twelve squares in the complete diagram intersected at seven different points (of which one was double), the “forma” square serving as a link between the eleven others; the virtual square (h_n), the two divine squares (U and Ω),

the 7 operative “Sephiroth”; the last, representing “Malkuth,” is “at the feet” of the Virgin and the Angel. The horned serpent, biting into the apple, is the symbol of the formal World.

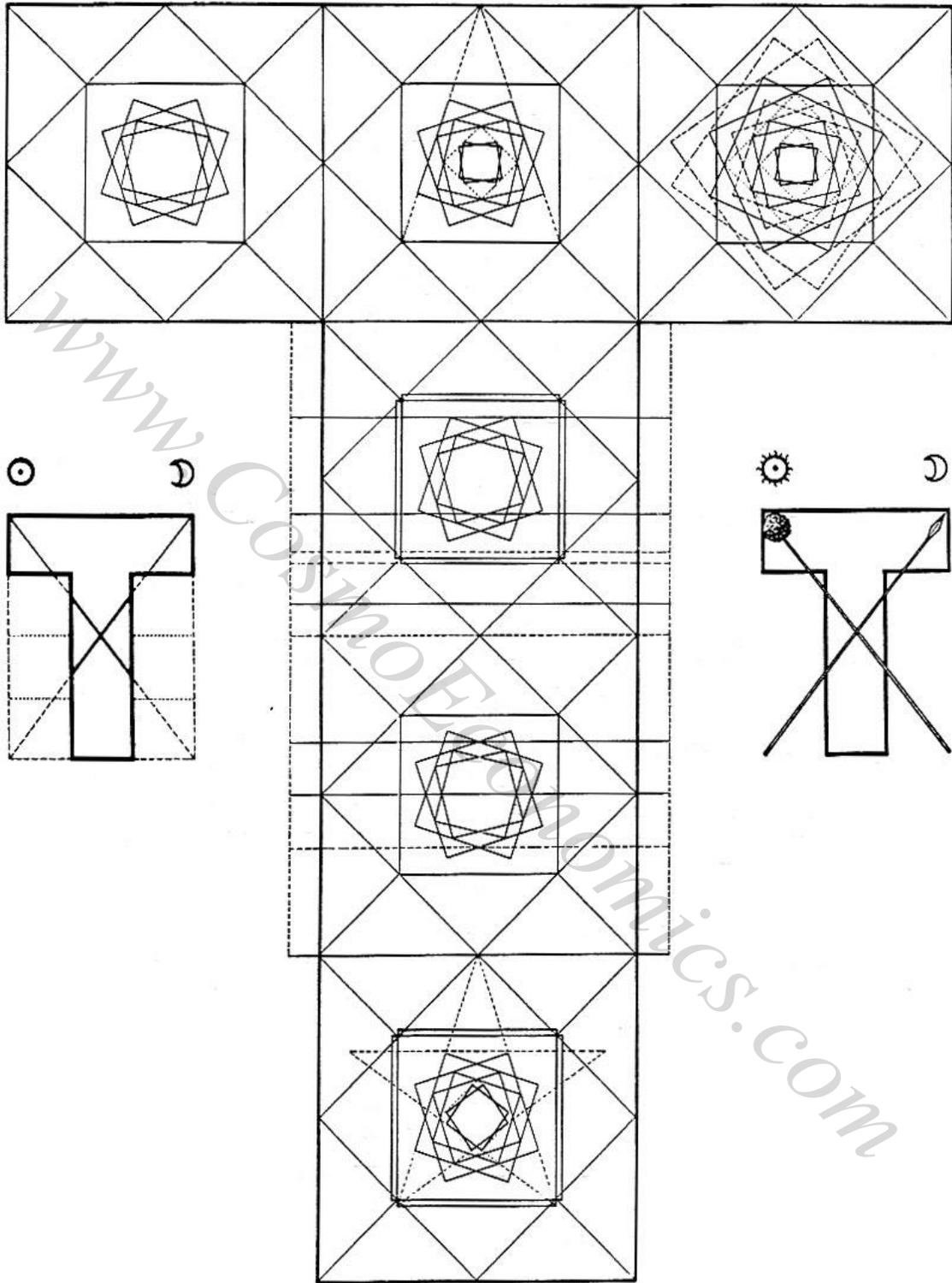


Fig. 33. – THE GEOMETRIC TAU¹⁷³

¹⁷³ This geometric Tau, constituted by the assembly of all the diagrams invented by the Author, is a veritable synthetic key to the Art of construction. The form of this key, forged by the Master of the Work, is that of the great sign of salvation, which, coming from Calvary, has traversed all Christian and Gnostic tradition (the cross of CHRIST in the form of a Tau, the Tau of Saint ANTHONY); it bears in it the protective

XVIII

THE PRECEDING CONSIDERATIONS had naturally prepared me for the study of Harmony; the relationship of this art with planetary arithmology, which KEPLER studied in his *Harmonices Mundi*, had in fact been recognized at all times. Chinese tradition, in particular, was given to bringing out relationships between tones and numbers; so it was through that that I began this new part of my work.

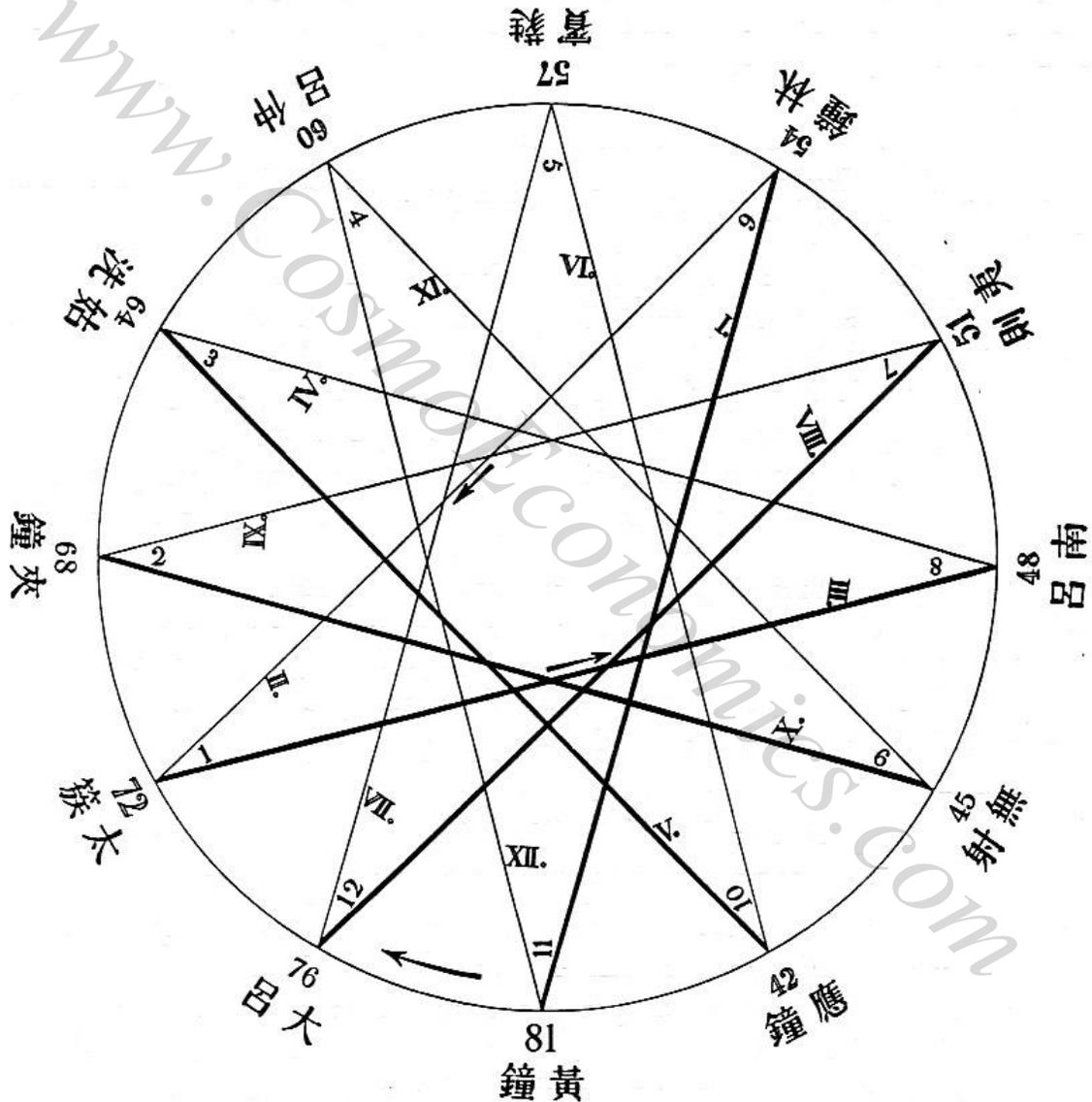


Fig. 40. – THE ROSE OF THE TWELVE MUSICAL PIPES

Just as in Hindu doctrine, the Primordial Tone precedes the appearance of the superior generation and inferior generation, from which all Manifestation proceeds, so Chinese musical theory envisages the constitution of harmony starting from an initial

NATURAL ARCHITECTURE

DIATONIC DISTANCES BETWEEN THE MUSICAL INTERVALS OF PTOLEMY

⊙ Fifth	♯ Sixth	♀ Seventh	♂ Octave, Unison	♀ ↔ ♂ Second	♂ Third	♯ Fourth	⊙ Fifth
$\frac{3}{2}$	$\frac{5}{3}$	$\frac{15}{8}$	2×1	$2 \times \frac{9}{8}$	$2 \times \frac{5}{4}$	$2 \times \frac{4}{3}$	$2 \times \frac{3}{2}$
$\frac{10}{9}$		$\frac{9}{8}$	$\frac{16}{15}$	$\frac{9}{8}$	$\frac{10}{9}$	$\frac{16}{15}$	$\frac{9}{8}$
T_m		T_M	t_d	T_M	T_m	t_d	T_M

I now formed PTOLEMY'S chromatic scale, complementary to his diatonic scale, with the aid of three different intervals, formed by the factors 2, 3, and 5:

- 1°) $3^3 / 5^2 = 27/25 = 16/15 \times 81/80$,
- 2°) $2^4 / (3 \times 5) = 16/15$,
- 3°) $5^2 / (3 \times 2^3) = 25/24$,

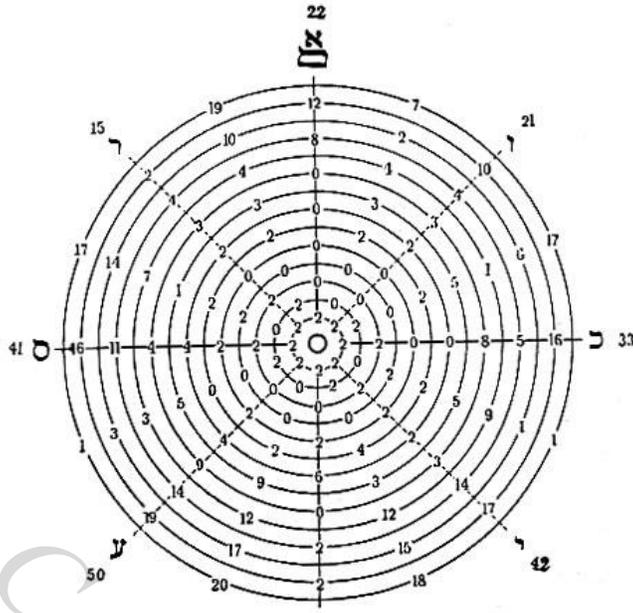
and, to constitute the twelve divisions of this scale, I used these three intervals, less often the larger they were, the first three times, the second four times, and the third five times. I obtained the table below.

CHROMATIC DISTANCES BETWEEN THE MUSICAL INTERVALS OF PTOLEMY

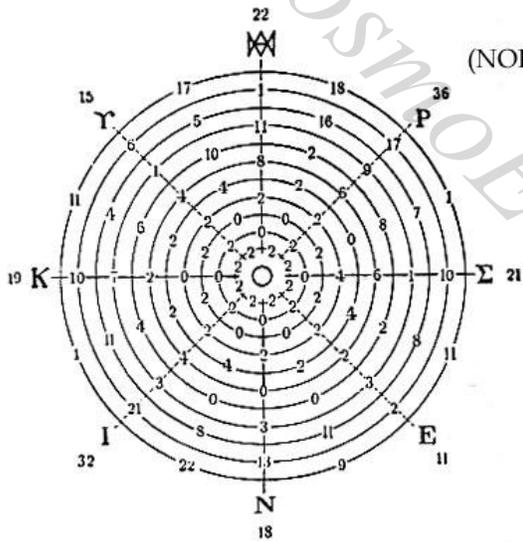
⊙ Fifth	♯ Sixth	♀ Seventh	♂ Octave, Unison	♀ ↔ ♂ Second	♂ Third	♯ Fourth	⊙ Fifth
$\frac{3}{2}$	$\frac{5}{3}$	$\frac{15}{8}$	2	$2 \times \frac{9}{8}$	$2 \times \frac{5}{4}$	$2 \times \frac{4}{3}$	$2 \times \frac{3}{2}$
$\frac{25}{24}$		$\frac{16}{15}$	$\frac{25}{24}$	$\frac{27}{25}$	$\frac{25}{24}$	$\frac{16}{15}$	$\frac{16}{15}$
$\frac{16}{15}$		$\frac{25}{24}$	$\frac{27}{25}$	$\frac{25}{24}$	$\frac{16}{15}$	$\frac{16}{15}$	$\frac{25}{24}$
$\frac{25}{24}$		$\frac{27}{25}$	$\frac{25}{24}$	$\frac{16}{15}$	$\frac{16}{15}$	$\frac{25}{24}$	$\frac{27}{25}$

Having thus found a musical system that symbolized the seven squares of the operative diagram, I sought a complementary system that would correspond to the law of formation of the nine lengths of ARSENIC•M. This is why, guided by the number 72 (= 108 × 2/3) opposed to the number 70 × 2 (= 7 × 4 × 5) in the theory of the twelve pipes, and considering that the eight ratios of ARSENIC•M were generated by the increasing powers of h/g, symbols of the mutations of the quinary and senary linked to the mutations of 2 and 3 (see p. 135), I formed, with the increasing powers of 3/2 (= h⁺ / √g), starting

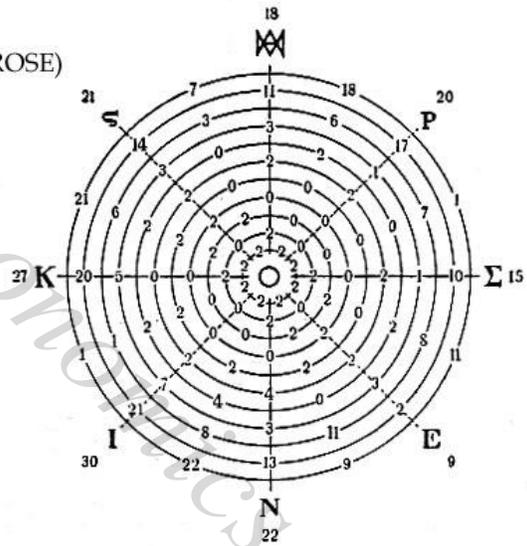
NATURAL ARCHITECTURE



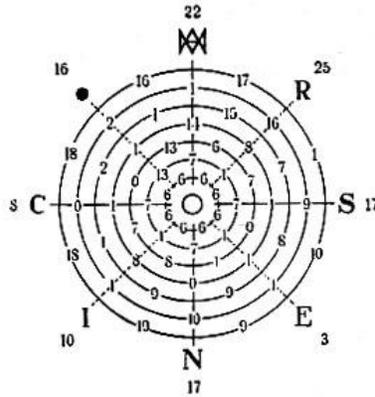
(NORTH ROSE)



(SOUTH ROSE)



(LABYRINTH)



(WEST ROSE)

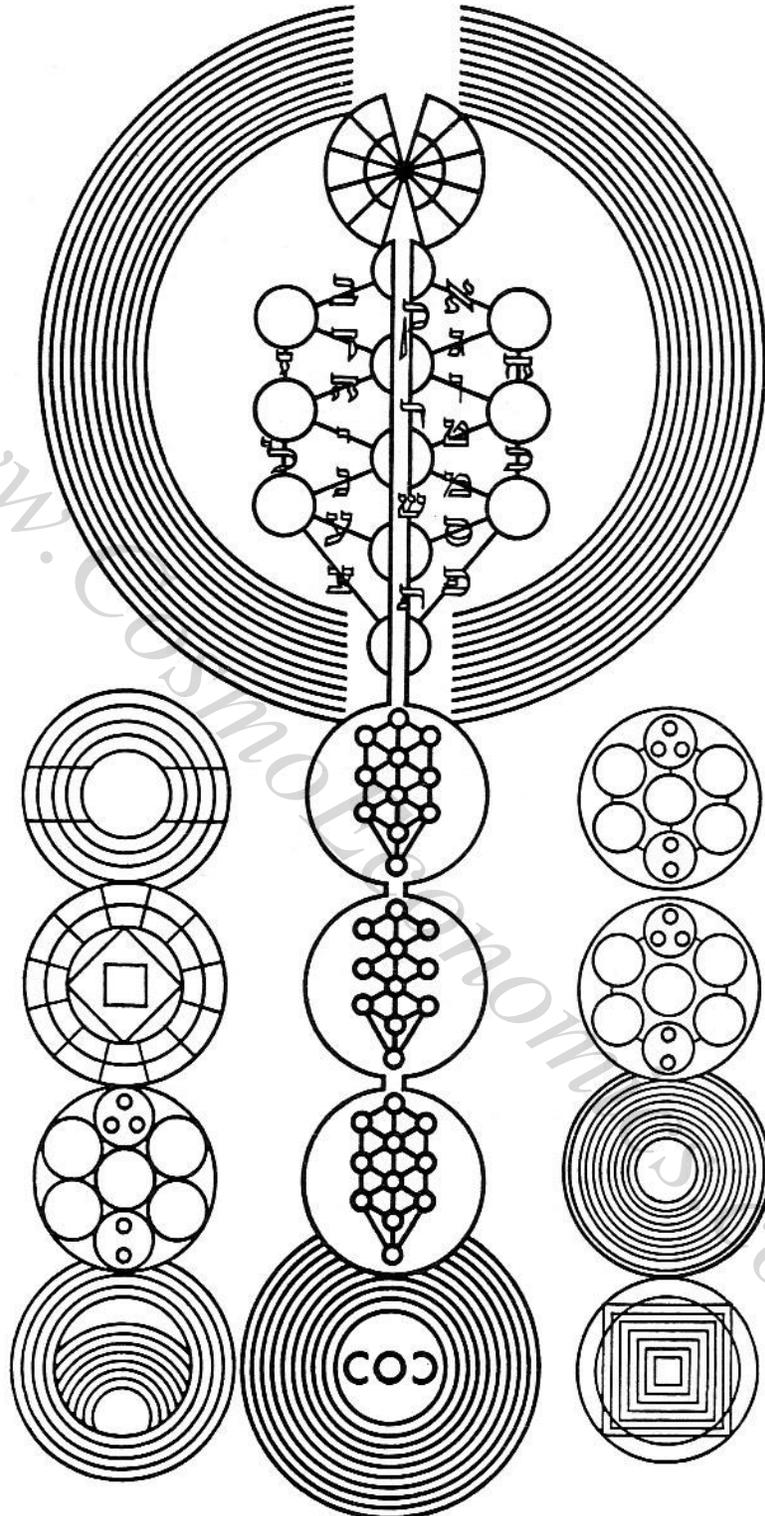
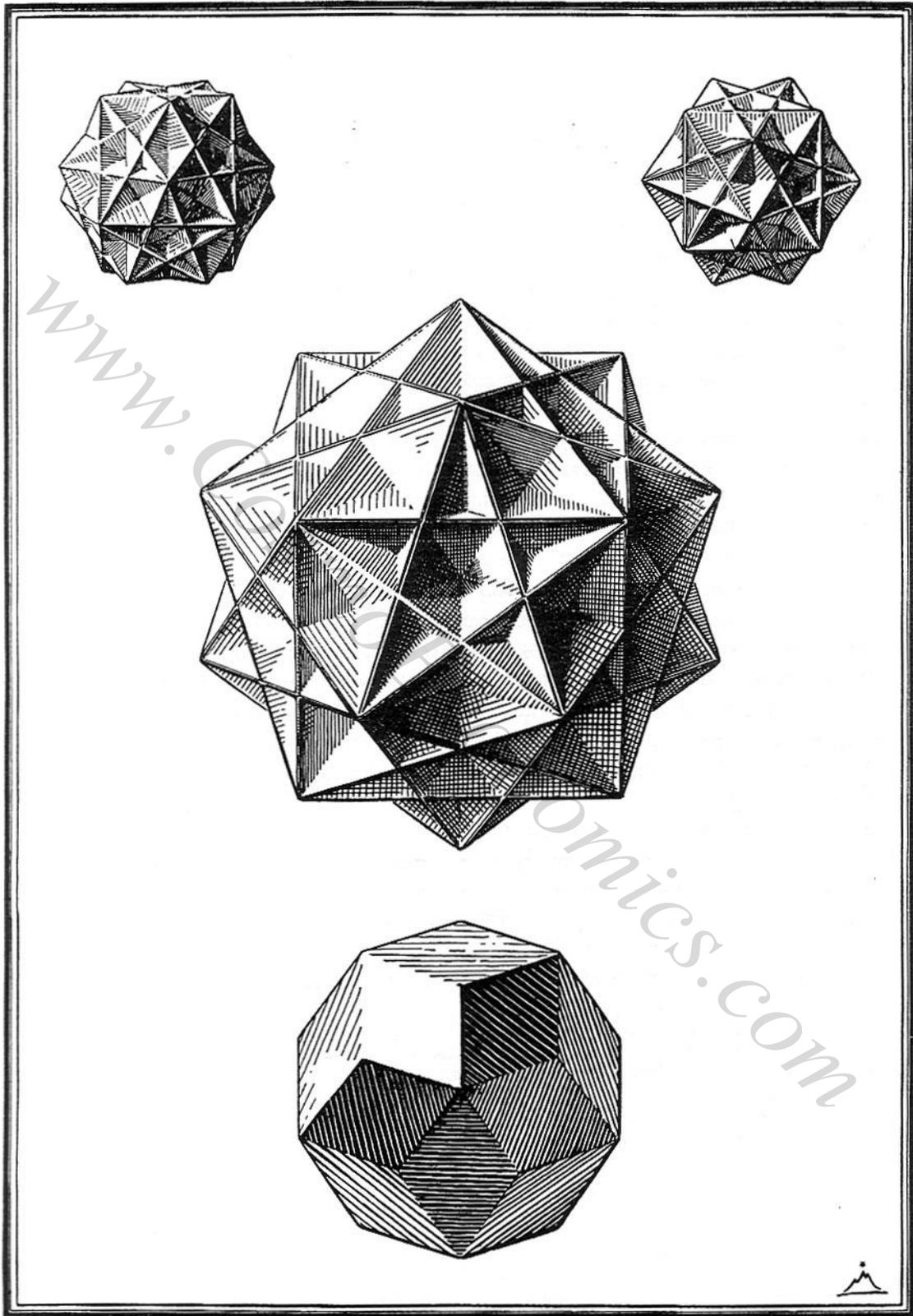


Fig. 47. – DESCENT OF THE SEPHIROTHIC TREE INTO THE VARIOUS WORLDS OF MANIFESTATION²⁸⁶

²⁸⁶ On the axis of the figure, the sephirothic influx is indicated descending into the 3 Worlds of the Manifest, whose 7 “Palaces” are represented by 7 circles, twice on the right, once on the left.

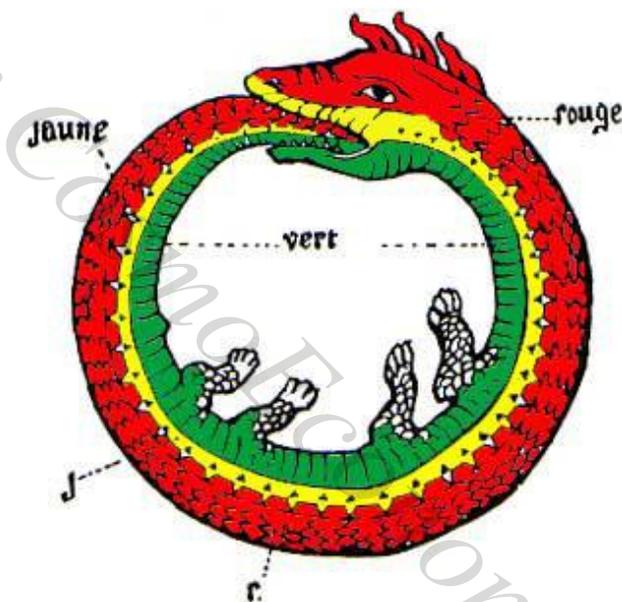


THE QUINTUPLE HEXAHEDRON

The 3 aspects of its surface, and the aspect of its core or rhombic triacontahedron.

also in agreement with this tradition. In fact, the three “Ribhus,” sons of SOUDHANVAN the Sagittarian, produced four examples of the triple Vessel (Rig-Veda IV, 33, 5); three of these, the “hotra,” the “potra,” and the “nêshtra,”³³⁴ are used daily for the preparation of the “Soma,”³³⁵ image of the divine fire AGNI, brought by the celestial falcon, just as the holy phial containing this same Fire was brought by the dove; the fourth, the universal Vessel, pure and immortal, has a mysterious usage which is not given for mortals to know.

I also did not neglect to note several other alchemical concordances with the squares of my intermediary diagram on triangles. According to ZOSIMUS and OLYMPIODORUS, the philosophical Egg from which the Sun and Moon emerge is composed of four elements.³³⁶ Now the Egg of the World was symbolized in this diagram



The circular Ouroboros, the serpent devouring its tail, whose body is divided lengthwise into three differently colored concentric zones, is the image of the operative diagram; its three parts and its three crests, which are “the three vapors and the twelve formulae,” represent the three exterior squares forming a triple enclosure with their twelve triangles, and its four feet (tetrasomy or quadruple matter) represent the four interior squares. The Ouroboros is tintured in the traditional colors: the interior zone and the paws are green, the middle scaled zone is yellow, the eye is white, and the head, ears, and exterior zone are red.

According to DANTE, The triple face of LUCIFER, at the center of the underworld, has the colors of the Great Work; the central face is red, the one on the right is yellowish white, and the one on the left is black. The triple faces of the polycephalic representations of the most important Asiatic divinities are also painted in three different colors.

From his “trismegista” codpiece, a vessel containing the generating principles, PANURGE, during his discussion in sign language with the Englishman THAUMASTE, takes three objects: one white, one black, and one red.

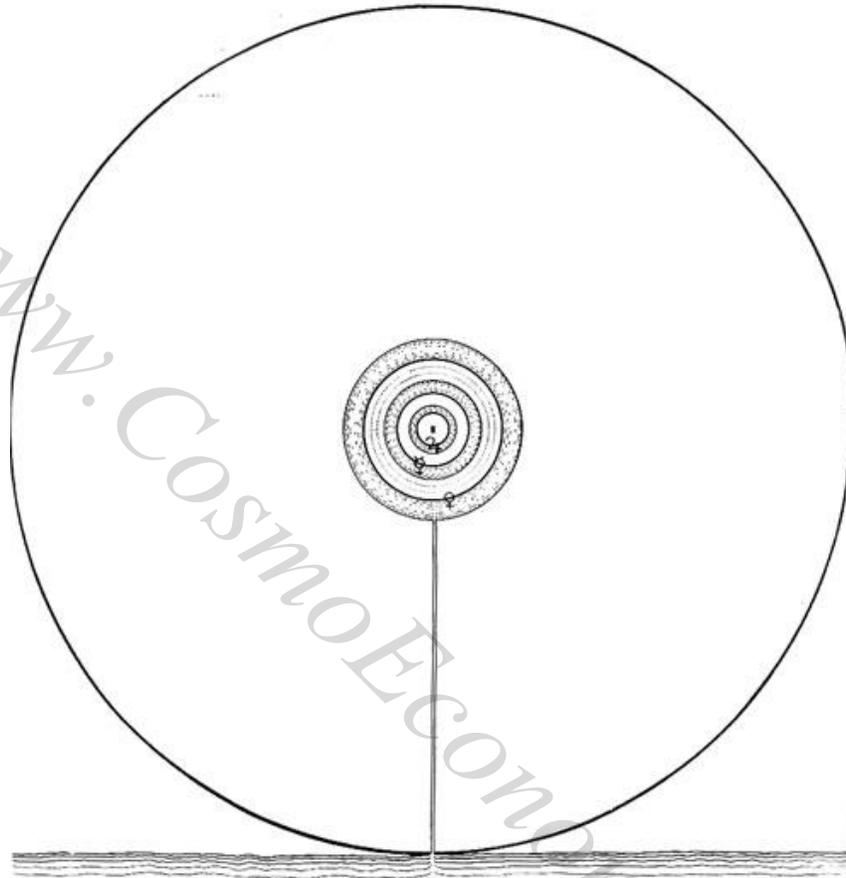
³³⁴ These are the vessels used by the three principal priests of the Vedic clergy, the “hotri,” sacrificial priest, the “porti,” purifying priest, and the “nêshtri,” conductor of the ceremony: they are the vases necessary for the daily preparation of the “Soma,” whose spiritual force is only complete on the third day.

³³⁵ The “Soma,” “triple in its essence” (Rig-Veda I, 86) because it is, in a way, the vessel of AGNI, is formed of three elements: water, the juice of the asclepias, and milk; it is symbolized by the Moon.

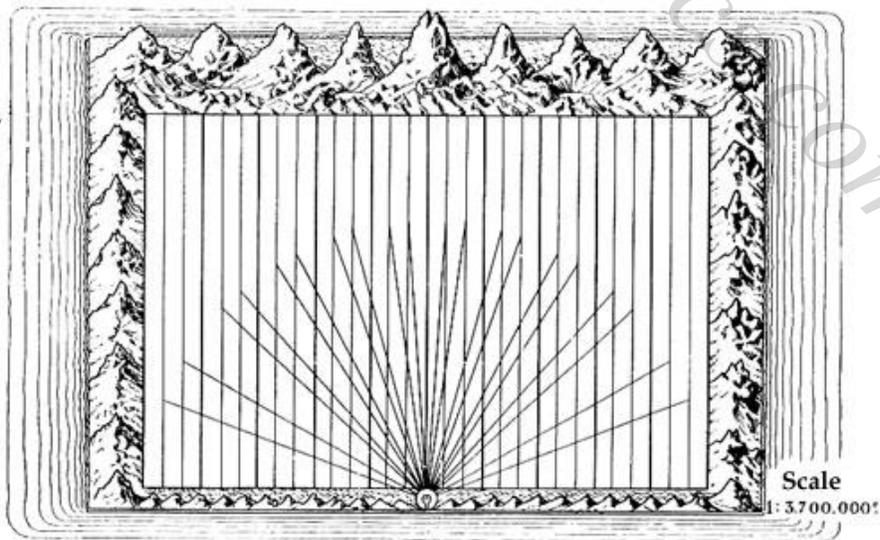
³³⁶ The Egg of the World is formed by the coiling of the “Shakti” (quaternary) around the golden Seed “Hiranyagarbha” (see fig. 11). The alchemists express this belief thus: “Elixir primo fit nigrum, secundo dealbatur, postea colorem citrinum assumet, ultimo vero rubrum... Elixir coagulatur in forma ovi.” One must remember that the colors of the Great Work are inherent to the “Shakti.”

NATURAL ARCHITECTURE

It was then that ZEUS, the God of Gods, WHO RULES ACCORDING TO LAW, and is able to see into such things, perceiving that an honorable race was in a woeful plight, decided to inflict punishment on them, that they might be chastened and improve.



SCHEMATIC PLAN OF THE ROYAL CITADEL OF ATLANTIS



SCHEMATIC PLAN OF THE ISLAND OF ATLANTIS

NATURAL ARCHITECTURE

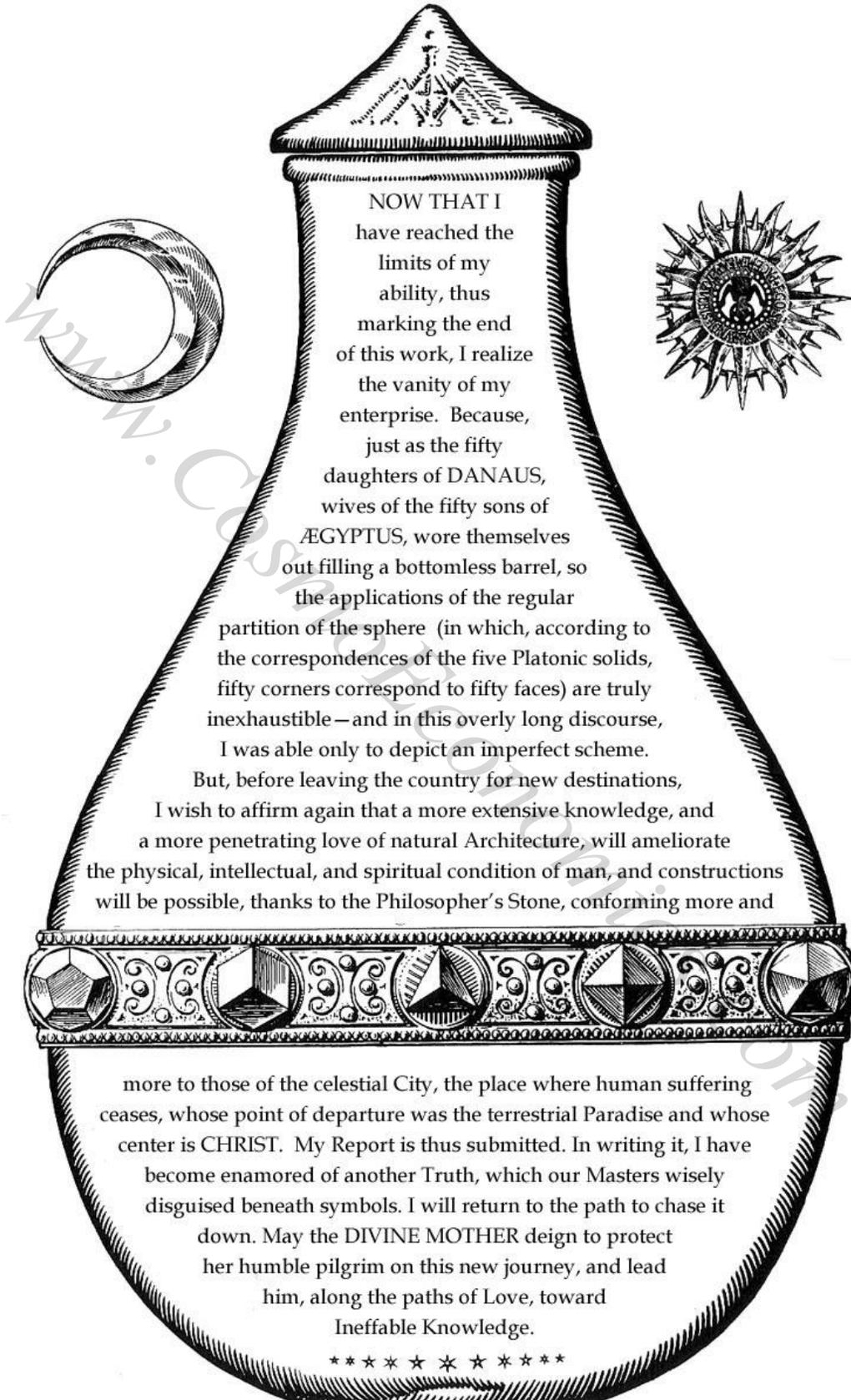
4/15, in such a way that the ratios of two successive coefficients were 4/3, 3/2, 4/3, 5/4, 3/2, ratios measuring the musical intervals of the major third, the fourth, and the fifth, which form the perfect major chord. Thanks to these consonant harmonies, encountered between the lengths of the elementary squares and between the coefficients assigning the lengths of the openings in the houses, I was able to establish the table below, giving me a scale of models of edifices such that, together in the same city, their forms would be in accord in a harmonious ensemble.¹⁶¹

PROPORTIONS OF THE EIGHTEEN MODELS OF HOUSES FOR HABITATION

MARK OF TYPE OF HOUSE	NO. OF ELEMENTARY SQUARE	LENGTH OF ELEMENTARY SQUARE	MODULE OF THE PLAN (IN ELEMENTARY SQUARES)	LENGTH OF FAÇADE	NUMBER OF OPENINGS PER STORY ON EACH FAÇADE AND SIDE	COEFFICIENT APPLIED TO THE QUANTITIES R, S, E, N, AND I	RATIO BETWEEN THE DISTANCE OF THE FINIALS AND THE LENGTH OF THE FAÇADE	RATIO BETWEEN THE WIDTH OF THE WINDOWS AND THE LENGTH OF THE FAÇADE
<i>B</i>	1	$\sqrt{2} \times 3/3$	$\frac{5}{3}$	$5\sqrt{2} \times 3/3$	3-0-0-0	$\frac{4}{3}$	$\frac{A}{M}$	$10\sqrt{3} \times R/M \times 3/3$
	2	$-\times 4/3$	—	$-\times 4/3$	—	—	—	$-\times 4/3$
	3	$-\times 5/3$	—	$-\times 5/3$	—	—	—	$-\times 5/3$
<i>D_{III}</i>	1	$\sqrt{2} \times 3/3$	$\frac{8}{5}$	$4\sqrt{2} \times 3/3$	3-3-0-0	1	$\frac{A}{M}$	$4\sqrt{2} \times R/M \times 3/3$
	2	$-\times 4/3$	—	$-\times 4/3$	—	—	—	$-\times 4/3$
	3	$-\times 5/3$	—	$-\times 5/3$	—	—	—	$-\times 5/3$
<i>D_V</i>	4	$3\sqrt{4} \times 3/3$	$\frac{8}{5}$	$6\sqrt{2} \times 3/3$	5-5-1-1	$\frac{2}{3}$	$\frac{A + 2R}{M}$	$4\sqrt{2} \times R/M \times 3/3$
	5	$-\times 4/3$	—	$-\times 4/3$	—	—	—	$-\times 4/3$
	6	$-\times 5/3$	—	$-\times 5/3$	—	—	—	$-\times 5/3$
<i>D_{IX}</i>	7	$\sqrt{2} \times 3/3$	$\frac{8}{5}$	$8\sqrt{2} \times 3/3$	9-9-3-3	$\frac{1}{2}$	$\frac{A \times g}{M}$	$4\sqrt{2} \times R/M \times 3/3$
	8	$-\times 4/3$	—	$-\times 4/3$	—	—	—	$-\times 4/3$
	9	$-\times 5/3$	—	$-\times 5/3$	—	—	—	$-\times 5/3$
<i>F</i>	7	$\sqrt{2} \times 3/3$	$\frac{13}{13}$	$13\sqrt{2} \times 3/3$	9-9-5-5	$\frac{2}{5}$	$\frac{A + \bullet}{2M}$	$26\sqrt{2} \times R/M \times 3/3$
	8	$-\times 4/3$	—	$-\times 4/3$	—	—	—	$-\times 4/3$
	9	$-\times 5/3$	—	$-\times 5/3$	—	—	—	$-\times 5/3$
<i>G</i>	10	$3\sqrt{2} \times 3/3$	$\frac{13}{8}$	$39\sqrt{2} \times 3/3$	13-13-7-7	$\frac{4}{15}$	—	$26\sqrt{2} \times R/M \times 3/3$
	11	$-\times 4/3$	—	$-\times 4/3$	—	—	—	$-\times 4/3$
	12	$-\times 5/3$	—	$-\times 5/3$	—	—	—	$-\times 5/3$

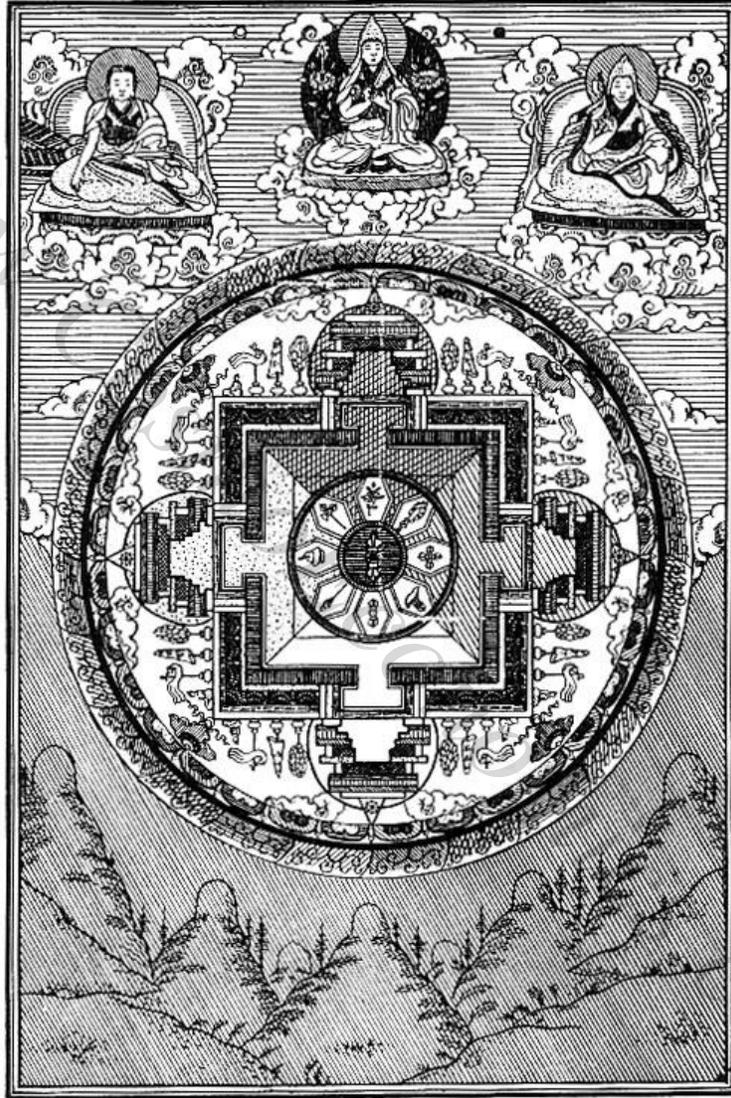
This table indicates the type of house (whose plan, elevation, and sometimes cross-section are attached to this Report in the plates), the number of order and the length of the elementary square of each model, the module of the plan, the length of the façade, the numbers of openings per story on each façade and side, the coefficient to assign to the

¹⁶¹ The ratio of the lengths of the greatest to the smallest façade in this ensemble was 13, the seventh number of the FIBONACCI series. Practically speaking, the notes of the horn and trumpet, the simplest wind instruments, are limited by the thirteenth harmonic.



APPENDICES

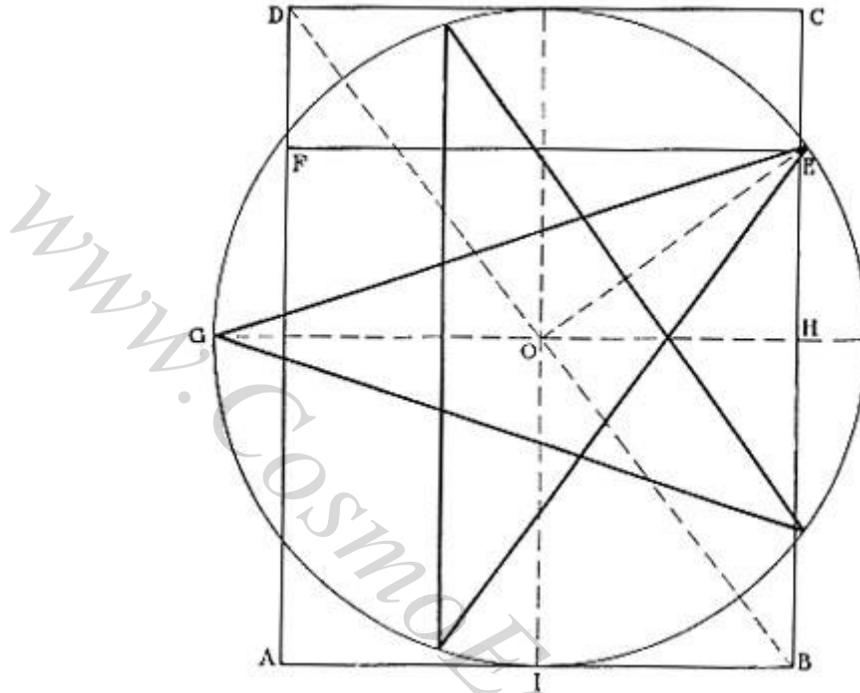
TO THE
REPORT OF PETRUS TALEMARIANUS



EDITOR'S NOTE. – *We preferred to add, in the form of an Appendix at the end of this "Report," certain important notes which were found on non-paginated leaves, attached to the end of the manuscript, and for which the "Master of the Work" had made no written indication permitting us to place them at a precise location in the text. We thought it best to insert, in these Appendices, an unpublished study by Francis WARRAIN (to whom we had submitted the manuscript of this work), because it appeared to us to perfect a theory to which PETRUS Talemarianus had not given so complete a development. This study constitutes Appendix VII.*

APPENDIX I

CONSTRUCTION OF AN APPROXIMATE PENTALPHA WITH THE RECTANGLE \sqrt{g}



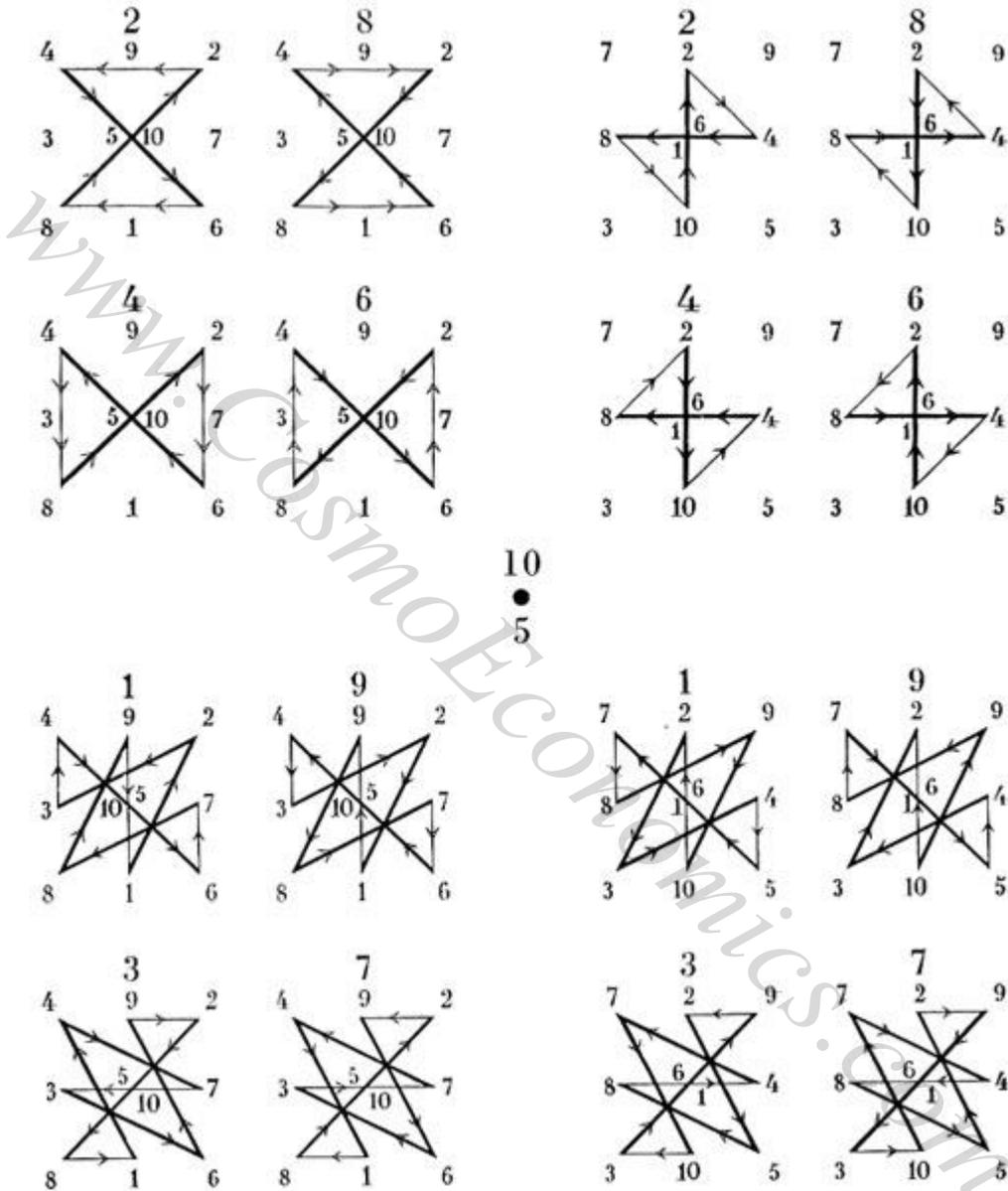
An approximate pentalpha can be constructed, inscribed in a circle, with the aid of a rectangle $A B C D$, of module \sqrt{g} , having approximately the same area as this circle and being tangent to it on a diameter, and with the aid of the square $A B E F$, having three sides in common with the rectangle and the same approximate perimeter as the circle.

Line EO defines the pentalpha with a close approximation; in fact, $\tan EOH = 2 - \sqrt{g}$. Therefore the angle of the pentalpha in G , or angle EOH , is $36^{\circ} 3' 18''$.

The base $\sqrt[3]{g}$ ($= h/g^+$) of the architectural scale of the volumes corresponds to the module $\sqrt[3]{g}$ of the sacred areas in China (see pp. 42 and 63). The mutation of the quinary and senary, fundamental in the Chinese cosmogonic squares (see p. 138), is found at the base of the architectural scale (h/g) and of the musical scale of PYTHAGORAS ($3/2 = g [5^+/6]$); it is also encountered in the modules of the sacred enclosures of the West, because the module $g^{1/2}$ of the "Ming t'ang" corresponds to the modules $g^{3/2}$ ($= 2^*$, silver rectangle) and $g^{5/3}$ ($= \sqrt{5^+}$) of the pontifical and royal areas of the West, for which the exponents of "g", ratios of consecutive terms of the FIBONACCI series, measure the fifth and sixth intervals.

APPENDIX IV

CHINESE COSMOGONIC SQUARES AND PYTHAGOREAN TABLE



It is possible, with the aid of the Chinese cosmogonic squares, to obtain a mnemonic scheme of the products of the first nine numbers with each other, constituting the Pythagorean table, products defined by the number of their units alone. (Example: according to this convention, the products of the first nine numbers by 3 are defined by the progression: 3, 6, 9, 2, 5, 8, 1, 4, 7.)

In fact, applying the symbol \otimes , which recalls the symbol of the three Trinities (see p. 23) and the AVM, to the square of 5, one obtains, by placing the corners of the two angles upon the 2 and the 8 respectively, and adding the lines necessary to make a closed

NATURAL ARCHITECTURE

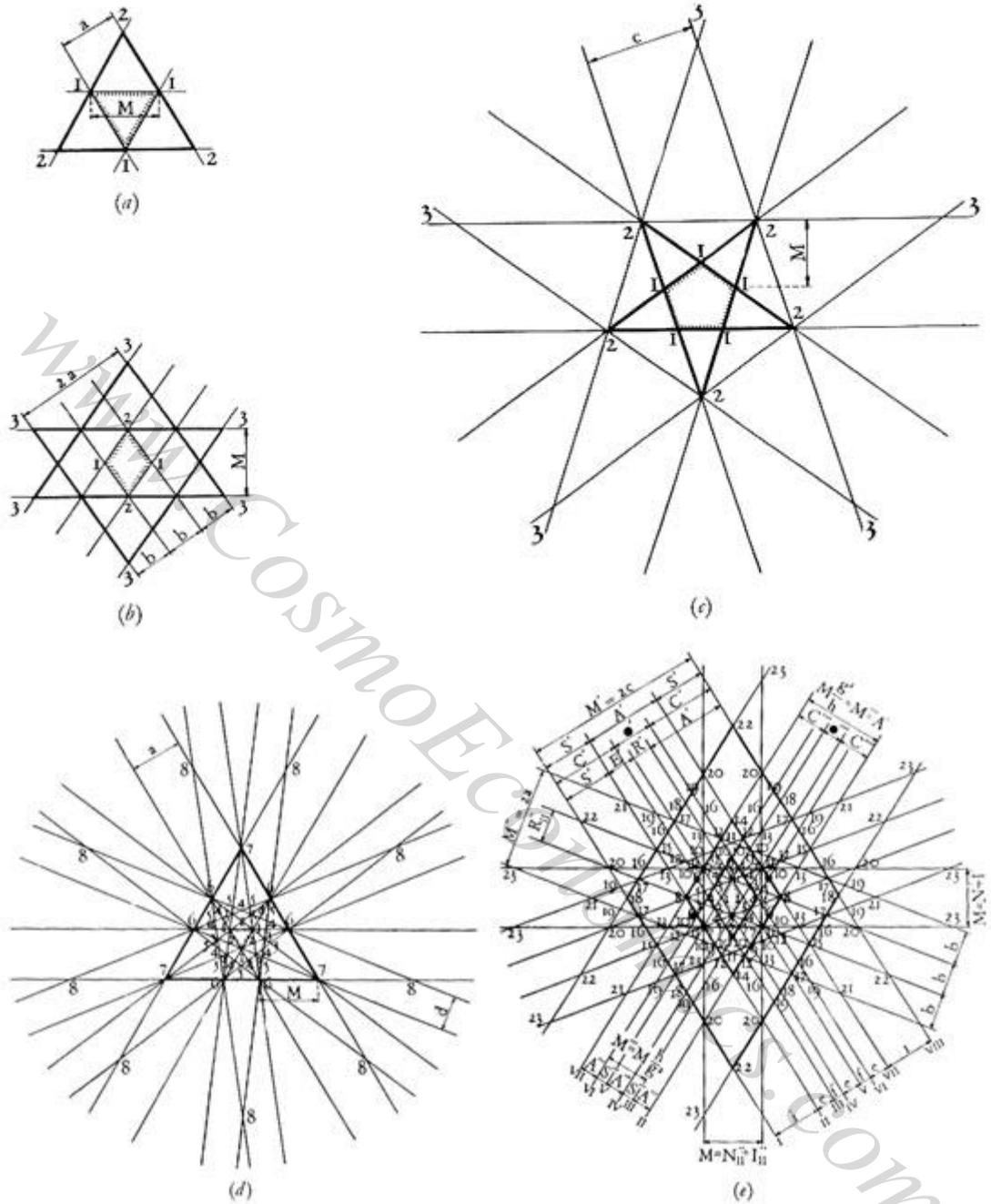
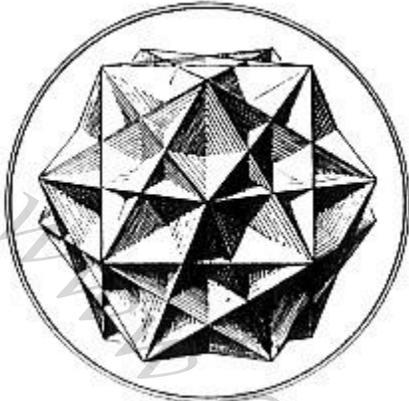


Fig. I a), b), c), d), e). – Figures giving, for the octahedron (a), the rhombic dodecahedron (b), the dodecahedron (c), the icosahedron (d), and the rhombic triacontahedron (e), the traces, on one face of this solid, of the other faces.

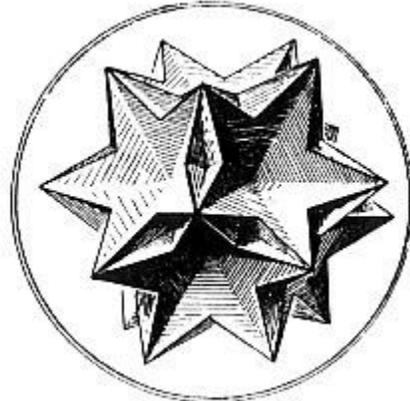
It emerged from the table giving the values of the elements of the regular solids that the ratio h/g , base of the architectural scale, was equal, for the icosahedron and dodecahedron of the 3rd type with convex faces, to the ratio between the diameter of the circumscribed sphere and that of the sphere of the edges, for the dodecahedron and dodecahedron of the 3rd type with starred faces, to the ratio between the diameter of the sphere of the edges and that of the inscribed sphere, for the icosahedron of the 7th type

NATURAL ARCHITECTURE

CORRESPONDENCE IN THE WORLD OF "ATZILUTH" BETWEEN THE ELEMENTS OF THE SEPHIROTHIC TREE AND THE POLYHEDRONS HAVING AT LEAST TWO OF THEIR ELEMENTS EQUAL



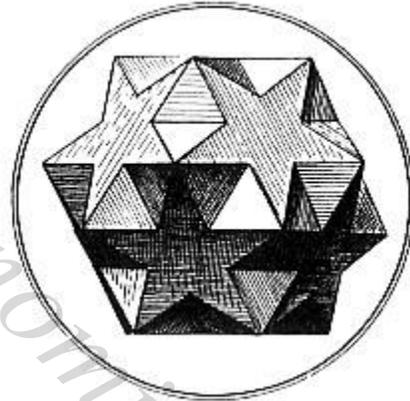
Quintuple hexahedron of the 5th type
(BINAH)



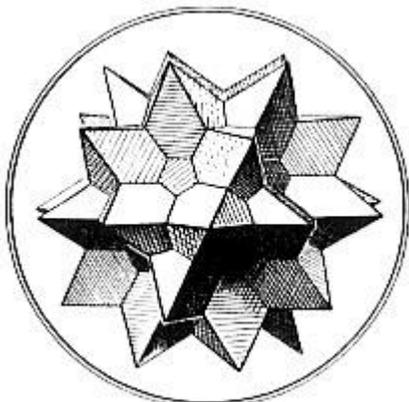
Decuple tetrahedron of the 10th type
(KETHER)



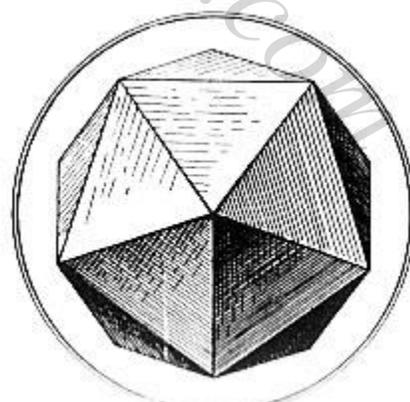
Icosahedron of POINSOT of the 7th type
(GEBURAH)



Archimedean icosagon of the 2nd type
(DAATH)



Archimedean triacontagon of the 7th type
(HOD)



Icosahedron of the 1st type
(TIPHERETH)

APPENDIX XII

THE DIVINE ARCHITECTURAL ARCHETYPE AND ITS PATHS

In the “Apocalypse” of Saint JOHN, the vision of the throne of GOD and the Lamb and that of the new Jerusalem, are complementary to each other (Apoc. XXII, 3); the first is of speculative order, the second of operative order (Apoc. XXI, 15). They are the crowning of three other pairs of facts described in the “Bible,” which relate to the construction or visioning of sanctuaries, palaces, and cities, and whose exposition follows.

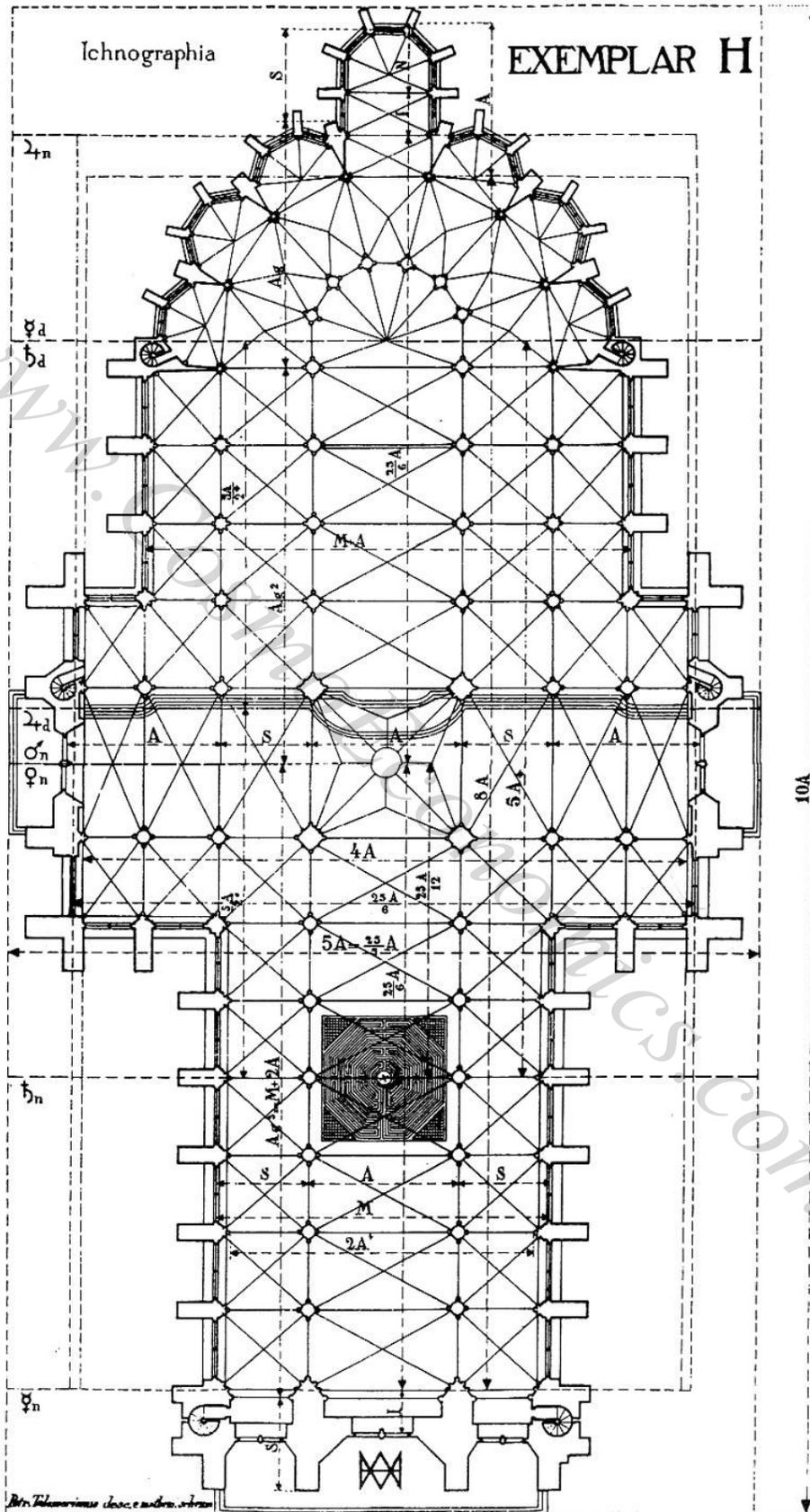
IAHVEH, on Mount Sinai, communicates verbally to MOSES the idea of the tabernacle and the courtyard (Ex. XXIV, 9 to XXVII, 19) which are realized by BETZELEEL, son of JUDA and by OOLIAB, son of DAN (Ex. XXXV, 30 to XXXVIII, 20). DAVID receives from IAHVEH, in writing, the models of the temple with its furnishings; this sovereign passes them on to his son (I Chr. XXVIII, 11-19). It is with these plans that SOLOMON builds the house of IAHVEH on Mount Moriah; then he erects, near to there, his own dwelling (I Kings V, 15 to VII, 12; II Par. I, 18 to V, 1). Master HIRAM builds the two columns of the temple, the sea of bronze, and the implements (I Kings VII, 13-47; II Par. IV, 11-18).

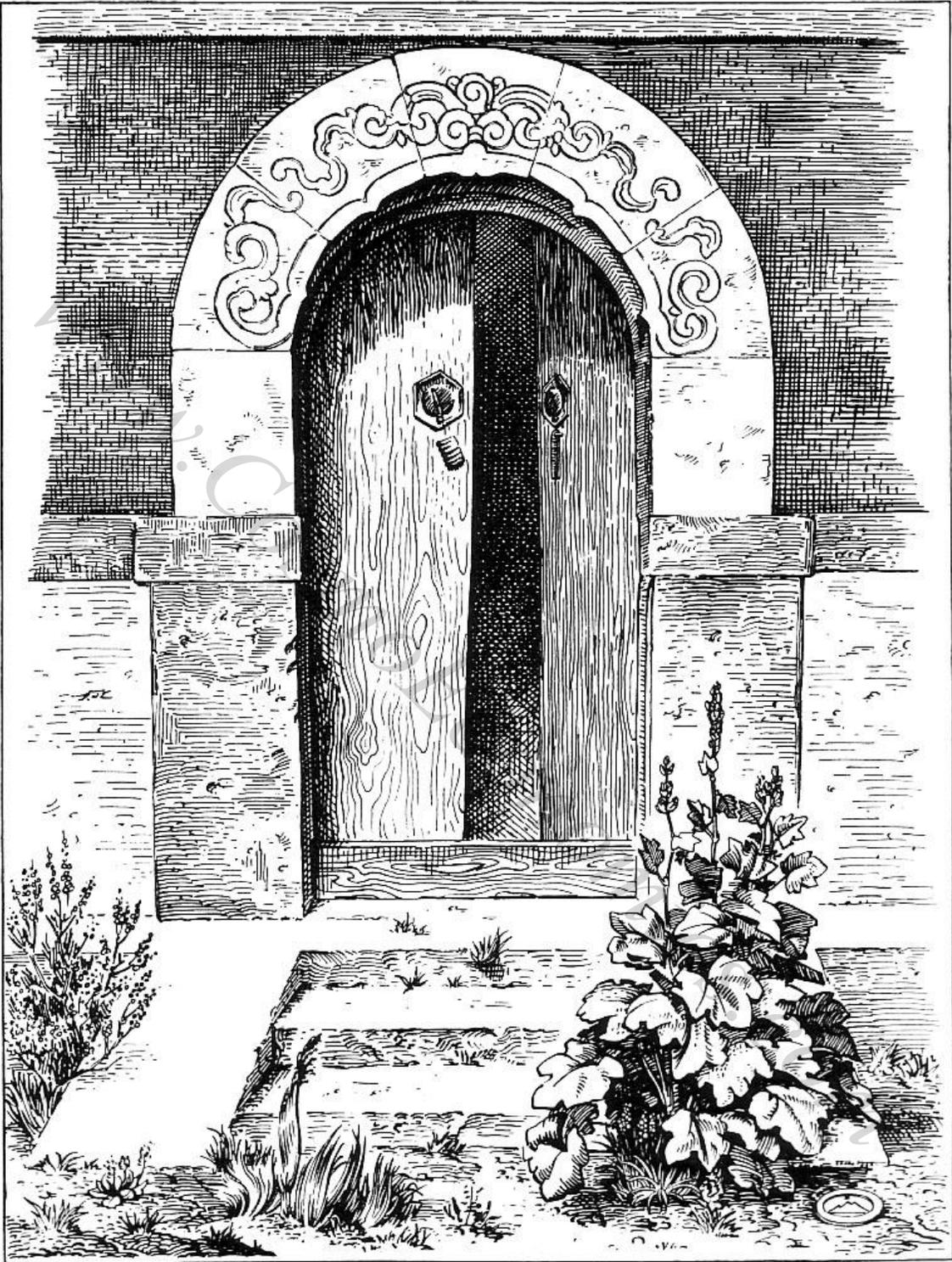
In the course of a series of visions, EZEKIEL first sees the glory of IAHVEH in a chariot (Ez. I, 4-28; X, 1-17) abandoning the temple (X, 18) and the city of Jerusalem (XI, 22 ff.) destroyed by fire; then this same glory, in the same vehicle, returns to a new Kingdom, which has a new Temple built on a very high mountain, and which constitutes a new holy Land with a new capital (Ez. XL, 1 to XLVIII, 35).

Just as these four communications of a divine architectural archetype, associated with a mountain, give plans, with a sacred character, of temples with their furnishings, of palaces and cities, “which are an image and a shadow of celestial things” (Ex. xxv, 40; xxvii, 8; Heb. viii, 5), so a series of geometric diagrams, associated with the Great Pyramid, provided me with the models, established according to the rules of the Art, of buildings designed for prayer and habitation. This connection between divine ideas and their copies, applied to edifices, appears four times in the entire length of the “Bible”; it relates to the Worlds of the Kabala and to those of Tantrism

The first two pairs of events designated above relate to the domain of the Individual, to the Worlds of “Ashiah” and “Ietzirah,” therefore to formal Manifestation, both gross and subtle. In these two pairs, in fact, the copies of the archetype have a real existence: one, the tabernacle of MOSES, is executed as a movable construction following oral prescriptions; the other, the temple of SOLOMON, is established as a fixed construction following written instructions. These two realizations, which come from the same idea, have the same proportions and the same organization in their common part, symbol of the interpenetration of “Ashiah” and “Ietzirah,” because SOLOMON added only an exterior courtyard and a series of palaces to the original plan of MOSES for the temple. In these two cases, the description of the divine exemplar and its communication are exposed in a succinct manner (Ex. xxiv, 10 ff.; I Par. xxviii, 19).

By complement, the last two pairs of events correspond to the domain of the Universal, to the Worlds of “Beriah” and “Atziluth,” therefore to informal Manifestation and to the Non-manifest. Two material constructions, the tabernacle of MOSES and the





THE OPEN DOOR

NATURAL ARCHITECTURE



