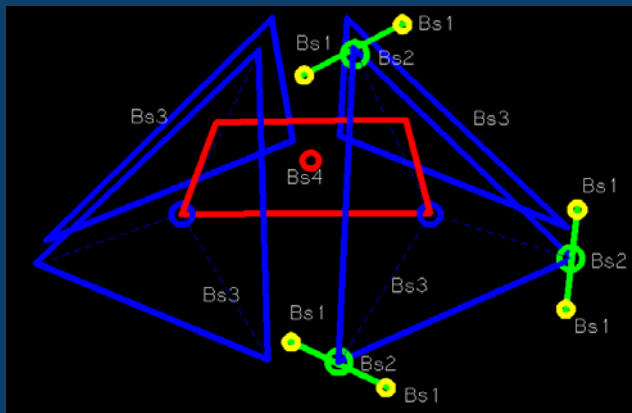


# Determining Planetary Spin and Musical Gravitation in the Spheres of Cosmic Systems of Perfect Numbers

The Architecture of God



Hossam M. K. Aboufotouh

Cairo - Egypt  
2004

*Part of the Architecture of God  
on*

*Depicting the initial structure and the architectonic workability of a solar system similar to the eternal ethereal system of the throne of one and its twenty-four musical seats, its four guards that each has six wings, and its seven working heavens. And related to the pyramidal works of the great scholar king Suphis Nquse (Sphinx) Armageddon, i.e., the falcon of the Mighty God, and the friends of Gephry-La.*



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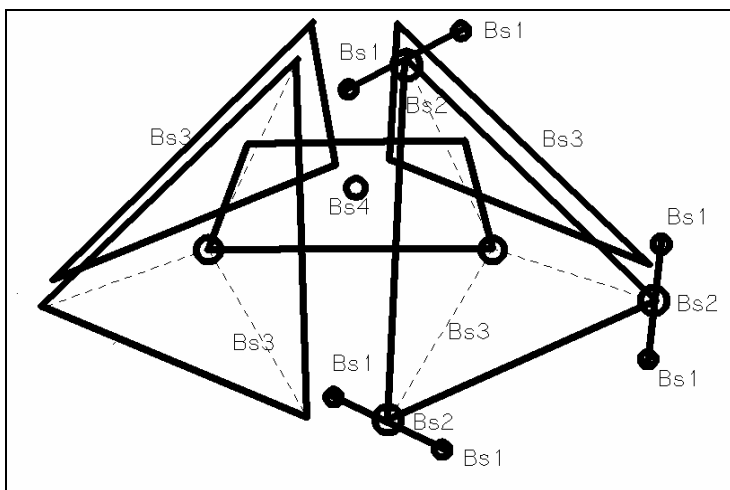
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***Determining Planetary Spin and Musical Gravitation in the  
Spheres of Cosmic Systems of Perfect Numbers***

*This work retrieves part of the first principles of the ancient Egyptian  
architectonic mathematics of material and ethereal cosmic systems of  
numbers in plane and spherical geometry, which are presented in  
thirty-nine mathematical equations.*

*It is part of the Architecture of God*

*On*

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*And the friends of Gephyry-La.*

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## *Dedication*

*To my son Mohamed,*

*To my daughters Amira and Ola,*

*To my family,*

*And*

*To the Victorious Egypt.*



*H. Aboufotouh at Bibliotheca Alexandrina*

## *Preface*

The first principles of the ancient architectonic mathematics of ethereal systems of numbers are sacred; and ancient civilizations did enquire about the philosophy of their first cause. This ancient realm investigates on the geometric laws of God, the ideas about creation, the structure of heaven, and the intrinsic attributes of the eternal ethereal substance. One of the subjects, deals with the laws that govern the correlation between two distinctive-types of orbits in a cosmic system of number, which were classified as, e.g., a divisible and the indivisible; the other and the same (or the one); or a diverse and the frame of reference. Simply, it is the correlation between any local orbit and the hosting sphere of the indivisible one. Medieval historians said that the Egyptian priests, e.g., Idris, studied the systems of numbers in order to understand the structure of heaven and the architectonic attributes of the material and ethereal systems of numbers. However, according to ancient traditions, and is still believed, revealing all laws about the systems of numbers implies that the scholar disobeys the commands of God. Hence, written Egyptian documents are nil, but the physical representation of the ancient Egyptian knowledge on this matter was designing pyramidal models of four sides. In later periods, those who did write about it, they either depicted the laws

as dreams and revelations, or intentionally put them in improper mathematical sequence (chaos), targeting only those who will be interested to know, and have the ambition to enter this realm and to rewrite some of its many ancient pages from the beginning. The ancient notion is simply that, sets of numbers from one to six, to twenty-eight, to one thousand, or to as one is able to count, provide the seeds for constructing systems of numbers in multi-dimensions. The ancient approach, that is presented and mathematically retrieved in this work, relies on that the cosmic enclosure is similar to a ball that contains material bodies swimming in a compressed ethereal substance. In a dialogue of *Plato, Timaeus* the Italian scholar from Locris, who most likely studied in Egypt said, "God took the three elements of the same, the other, and the essence, and mingled them into one form, compressing by force the reluctant and unsociable nature of the other into the-same". This ancient philosophy dealt with numbers as material or ethereal systems. Therefore, this work discusses the likely architectonic scenario of the evolution of cosmic-systems of numbers, such as probably, the observed solar systems or atoms, and perhaps the related unobserved ethereal systems, using merely the thrust-method of a megalithic arch. It shows that the architectonic structure and process of transformation of the perfect number system twenty-eight matches our solar system and the chromium atom. One might observe this work as it prove well stimulating to one's thinking, particularly if one has

an interest to know, among other things, where life might exist in extra solar systems, i.e., the location of habitable zones, perhaps, in any system. Call this the alternative approach on how cosmic systems work without using the values of, e.g., mass, energy, or gravitation-constant in any equation. The numbers used in this work are not been chosen in a random way, nay, all key-numbers are part of those mentioned by the priests and philosophers of the ancient world concerning the ethereal systems in our cosmos. What is in between your hands, is part of the ancient wisdom about the secrets of number systems in nature. It is written in a numeric and geometric language that could be understood not only by those who did enquire about the secrets of the ethereal systems of numbers but also by those who are keen to know the other side of the truth from a mere architectonic perspective. It is part of the architecture of God.

*Hossam M. K. Aboulfotouh*



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## *Introduction*

*Pythagoras* proved that musical intervals could be characterized by numeric ratios and proclaimed that there is an analogy between planetary distances and musical intervals [1]. And, *Plato* [2] said that *Timaeus* explained how God created the numeric scale of musical intervals that upon which he structured the solar system and how its inner diverse-spheres (of the-other) are interacting with its outer sphere of the -same for conserving the perpetual motions of planets. However, *Plato's* text lacks the mathematical principles that support the mentioned scenario; hence, the concept is still being trapped as a moral-paradigm until today. Similarly, the Pythagorean taxonomy, and perhaps magnifying, of perfect numbers is another intelligent but frozen concept that according to their definition [3,4], and that of Euclid [3,5] too, they disregarded, due to unknown reason, the relation between perfect numbers and the structure of material or ethereal cosmic systems. Or, perhaps, they followed the Egyptian tradition of not publishing the sacred secrets. On the other hand, in modern sciences, in General Relativity [6], *Einstein* introduced the postulation of curved space-time continuum; a gravitational field through which a planet will be in a continuous free fall around the

sun. According to his theory, if most of the matter in the universe happens to be spinning, all of the space-time will be pulled around it [7]. However, why planets do spin with different cyclic rates, during the free fall is still unanswered question. Until today, there is no mathematical formula to explain the relation between the order of a celestial body, in terms of its equatorial radius, its orbit form and dimensions, and the cyclic rate of its spin. Recently, *Dones* and *Tremaine* have suggested that, huge Mars-size rocks may have caused Earth's rapid spin, i.e., from 200-hours-cycle into 24-hours-cycle; and, the larger the bodies that hit the Earth, the faster it will spin [8], which implies that spin might be the result of hits with no relation to a frame of reference. On the contrary, about twenty three centuries ago, most probably based on the ancient Egyptians and the *Pythagoras* philosophy, *Timaeus* said and *Plato* [2] confirmed that, "any body in the cosmos either material or ethereal, including the human body, works based on one law; that is the harmonic tuning between two orbits: a diverse and the-same, or the-one". Where a diverse is any local orbit in a cosmic-system and the-one or the-same is the outermost orbit of that system, which represents the frame of reference for all its local diverse orbits. In this ancient notion, all observed or hidden motions of all material or ethereal systems were seen as the result of this law.

Retrieving the architectonic mathematics that describe and determine the harmonic tuning between a diverse orbit (the-other) and the indivisible frame of reference (the-one or the-same), that it belongs to, is therefore the major goal and the core contents of this retrieving work. The methodology for realizing this aim is by determining mathematically two basic architectonic laws that were mentioned partly in ancient texts, such as those of the *Pythagorean* and *Platonic* philosophies. That is the ancient architectonic law of numbers and the ancient architectonic law of music of the spheres. Whereupon, and because the primary importance here is the motion in, and the stability of, the cosmic systems of numbers, this work also includes an attempt to determine a third architectonic law concerning the spin of orbs. Meanwhile, it aims to show what might was the ancient approach to the three architectonic laws of the evolution of cosmic systems and together were forming the ancient architectonic musical law of gravitation, that might was used for propelling and lifting heavy megalithic stones. In short, this is an endeavor to show that gravitation could be observed as the carrying workability of an orb, and spin could be observed as the orb's load transfer mechanism.

The methodology is primarily based on merely using the architectonic thrust-method in designing megalithic arches [9,10], e.g., the arches in Egyptian

temples in Luxor or as that of Stonehenge in Salisbury. I think this most likely was the ancient method to understand the structure of a cosmic system and the motions of orbs, as I observe it encoded in designs of the Egyptian pyramids. Although this methodology differs from that of the realm of modern physics, scholars might detect that the laws of nature, particularly some of the general principles that were postulated in the Newtonian [11] Relativity [6,11], Quantum [12], and even Super string [11,13] theories, could be seen and think about in different way, via merely an ancient architectonic eye. This work does not speak about any of these great orthodox theories in relation to the retrieved ancient hypotheses, since it rather shows an entirely different approach on the architectonic laws of the structure of spherical-systems of numbers. In this work, I shall not use what do imply energy or a mass in reckonings, nor shall I speak about how a human being observes and records the motions of celestial bodies. This work focuses on part of the sacred ancient architectonic laws in plane and spherical geometry that ancient scholars said they describe, in a general way, the construction, stabilization, tuning, and sustaining of cosmic systems. It includes as well an abstract analysis on the motions of diverse (divisible) orbits and the indivisible frame of reference that occur due to only the applied-loads (and the corresponding compressive-stress) on the system under consideration. The idea is to substitute the

applied-loads (lines of forces) with their corresponding travel-lengths in the periodic time of the system. Besides, by the end of this text, I shall try to determine, in relation to the escape velocities' application of the *Newtonian* law of gravitation [14,15], only the musical-tone (architectonic-frequency) and the corresponding diverse-thrust in the planet's system that to which the escape velocity might belong. It also shows the ancient architectonic view on the ethereal thrusts' propulsion scenario, in order to defy gravity. Despite that the hypotheses might seem strange and completely outside the mainstream of planetary theories, when testing its corresponding outputs of mathematical formulas based on using the data of NASA's planetary fact sheets [16a-d], and other sources [17,18], it may put these retrieved ancient philosophy in some right or possible perspective. The retrieved ancient laws do not challenge, or compete with, any of the modern theories; it is only an attempt to show that the ancient approaches such as those of the *Pythagorean* or *Platonic* schools of thoughts could be viewed outside the domain of myths. I hope that the readers view the retrieved ancient laws as a sort of simple explanation of at least one of the array of natural phenomena that were studied by the ancient scientific community, adding maybe a missing page in the book of ancient knowledge of man.

The hidden message of this work is that the laws that govern the structure of cosmic systems could also be related to the architectonic attributes and the carrying workability of these systems. That is, the celestial systems could be viewed as the outputs of the architectonic design-and-build laws of God (the supreme architect) where this work intends to highlight. Besides, by the end of this text, the reader might agree about that time may be only an idea in the observers' mortal minds who are hosted in one system of the cosmic enclosure. At the end, time might be seen as a product of motions that take place only within this system due to its compressive stresses; and outside the cosmic enclosure, all motions do stop and the idea about time dismantles.

## *Section-1.*

### *The Architectonic Law of Numbers*

One can observe numbers as material or ethereal systems that according to the scenario of their evolution the ancient Egyptians assumed that they are of two distinctive types: basic and complex. To portray this scenario, I propose the following architectonic image. A basic system-*Bs* may be at its primary state a heterogeneously elastic spherical body-(HESB) swims within a Euclidean plane that forms its steering ethereal structure-(SES). The size of HESB may be as tiny as one can imagine or the opposite, relative to the size of the beholder. Assume that SES is any plane in the cosmic enclosure. Due to reasons that will be discussed in section-2, SES is built from compressed ethereal fibers and any of its cross-sections is under a uniform compressive stress; thus, HESB will be under the effect of a uniform distributed load. As a mutual reaction, we can imagine that, HESB together with SES construct an ethereal protection-bearing ring around HESB, making it a nucleus of a ringed-system.

As in arched structures that are designed to bear only compressive stresses [9,10], within the middle third of this ring multi-paths of semi-elliptic thrusts



would take place. The partial spread out of *Bs*'s ring will be as masonry-arches or the internal curved domain of megalithic-arches in ancient Egyptian temples or as the arches of *Stonehenge*, where the internal thrust of each is a parabolic curve, as shown in fig-1.

In a *Bs*, since the applied forces, due to the ring's structure property, are directed towards the nucleus of the ringed-system, the thrusts will be divided into two equal groups according to the direction of their motions: clockwise and anti-clockwise. These equalized, and opposite, motions keep the ring stationary. If SES contains other similar HESBs, under SES's compressive stress and HESBs' equal dominance, they may mutually compose a nucleus of one-ringed *Bs*. Since SES is not isolated from the rest of the cosmic enclosure, the ringed system may join with similar systems located in other planes (SESs) crossing its plane. Each HESB, therefore, will split into two, equally stressed, load-bearing elements: a spherical orb that runs on, and is steered by, a thrust, and a spherical pillar that remains in the system's nucleus. Here, I assume that the equatorial perimeter of an HESB equals the total sum of the equatorial perimeters of both an orb and a pillar. The orb will work as a roller-support (foundation) for carrying the nucleus of the *Bs* that swims in other SES (i.e., an orb is a male core, may be solid; a nucleus is a female hollow-sphere like a shield; and carrying is

the ability and willingness to marry). It will join with one of the carried nucleus's pillars to form its central HESB. The load bearing state of a HESB, a pillar, an orb, or a *Bs*'s nucleus will be discussed in section-3, as a first principle for determining the spin of each.

For now, I shall imagine that the carrying ability or the "order" of a *Bs* denotes its name-number, which indicates the number either of its initial HESBs, its orbs, or its pillars. If the orbs are more than one in the ring, I presume that they distribute themselves at uniform distances on the ring's median circle, to be at the corners of concentric-shapes, but each of them runs on different thrust. This keeps a uniform distribution of the excess dynamic loads on the ring. The pillars may also follow the same distribution inside the *Bs*'s nucleus. Furthermore, I presume that the orbs of any *Bs* perform an equal cycle-length  $X$  (the thrust's perimeter) in the *Bs*'s periodic time  $T_b$ . Then, we can symbolize basic systems according to their name-numbers and carrying abilities as  $BS_1$ ,  $BS_2$ ,  $BS_3$ ,  $BS_4$ , .. , and  $BS_n$ .

Geometrically, the ring of a *Bs* that swims in a compressed cosmic enclosure is the equatorial plane of its ethereal protecting sphere, which matches the equator of the system's nucleus. For, I can presume that the structure and function of all latitude rings

(parallel to the equatorial ring) are similar to the system's equatorial ring.

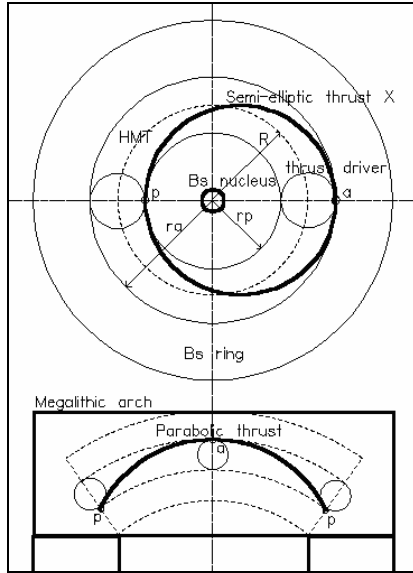


Figure-1: The parabolic thrust curve of a masonry or megalithic arch as a partial spread out of the ring's semi-elliptic-thrust of a *Bs*. The perihelion "p" and the aphelion "a" points denote the inner and outer limits of the middle third of an arch (dotted) or a *Bs*'s ring that within which the thrust curve passes through in order that any cross section of them being under only a compressive stress. Due to that, a *Bs*'s ring has a harmonic attribute, the thrust driver's speed of self-rotation changes during the revolution.

Besides, imaginary, if tilted rings do exit, they will be of similar structure and function. Now, we can imagine that the common rule of rings of a system's sphere as follows. Since the ring's thrusts are semi-

elliptic in shape, in case of a maximum permissible but compressive stress, the perihelion and aphelion of each thrust will be at the inner and outer limits of its ring's middle-third respectively. The location of these two limits are not identified on uniform distances as in masonry or megalithic structures [9,10] but, as will be discussed in section-3, it correlates to the harmonic architectonic frequencies of their vector-radii, due to the harmonic attribute of SES.

Furthermore, we can also imagine two circles generate the thrust curve, similar to those of the epicycloids curve [19], but this is a sliding case. The generating circle will be named as the thrust-driver; its center slides on the circumference of the median circle of the ring's harmonic-middle-third (HMT). The diameter's limits of the thrust-driver are the limits of HMT. As shown in fig-1, the thrust-driver performs two simultaneous cycles in  $T_b$ , either clockwise or anti-clockwise; i.e., its self-rotation around its center in diverse intervals and its orbiting cycle around  $Bs$ 's nucleus in equal sliding intervals.

Upon this, if the orbs of  $Bs_1$ ,  $Bs_2$ ,  $Bs_3$ ,  $Bs_4$  and  $Bs_n$  performed simultaneously one cycle in  $T_b$ , their total travel lengths will be  $X$ ,  $2X$ ,  $3X$ ,  $4X$ , and  $nX$ , respectively. Besides, when spreading out, in symmetrical way, half of HMT between the perihelion and aphelion points, half  $X$  will be its diagonal; and, despite

the motion is in curve it jumps in linear increments; then,  $X$  could be reckoned using Eq.1:

$$X = 2 * 2 \sqrt{\left(\frac{\pi r_a + \pi r_p}{2}\right)^2 + (r_a - r_p)^2} \quad (1)$$

Where,  $r_a$  and  $r_p$  are the outer and inner radii of HMT, respectively; thus,  $r_a$  never approaches zero. For simplicity, we can hereafter put  $X$  equal  $2\pi R$ , where  $R$  is the HMT's mean-radius. On the carrying ability, logically the big carries the small, i.e., a  $B_s$  can carry only the systems below (or in special cases similar to) its order. For example,  $B_{s4}$  can carry four  $B_{s3}$  and their sub-systems:  $B_{s2}$  and  $B_{s1}$ ; but it cannot carry  $B_{s5}$ .

Moreover, the joining of basic systems that have similar  $X$  size, generate a complex-system  $C_s$  in the cosmic enclosure. If  $B_{s4}$  carries four of  $B_{s3}$ , then each of  $B_{s3}$  carries three of  $B_{s2}$  and each of  $B_{s2}$  carries two of  $B_{s1}$ , they generate  $C_{s28}$ . Its initial geometric form, at the joining moment, is a pyramid of four sides, see fig-2. It is assembled from 41 basic systems: 1  $B_{s4}$ , 4  $B_{s3}$ , 12  $B_{s2}$ , and 24  $B_{s1}$ . It contains 64 pillars and 64 orbs. Each loaded orb in the system together with one pillar of the nucleus it carries will create one HESB like  $B_{s1}$  at its primary-state. In  $C_{s28}$ , they are 40 in total; 12 of them will be released out of the system after the joining process, leaving 28 HESBs

as surplus for the system, as shown in fig-3. At the end,  $C_{S_{28}}$  will contain 24 orbs, 24 pillars, and 28 HESBs. The system's name-number is, therefore, the number of its surplus of HESBs. Its name-number may also be symbolized as  $C_{S_{24+4}}$ , where it implies the total sum of its  $B_{S_1}$ s and the order of its base  $B_{S_4}$ .

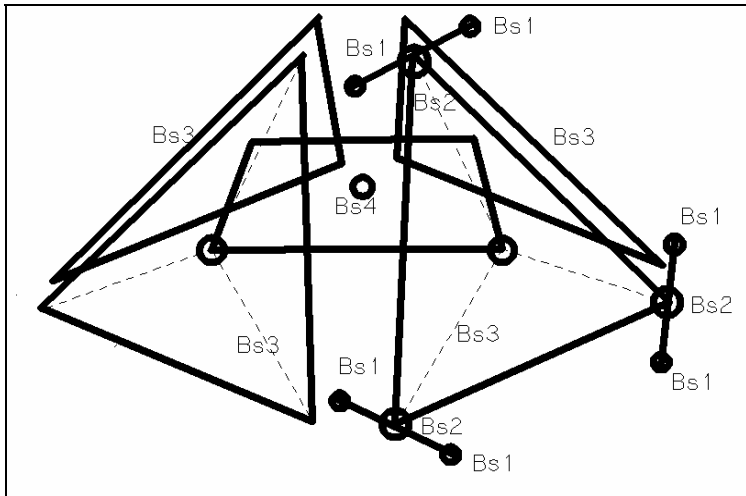


Figure-2: The initial pyramidal form of  $C_{S_{24+4}}$  during the assembling moment. The basic systems are not depicted in equal scales (sizes); and the thrust-X of each is not shown.

One can also observe the complex systems that are generated in this way as perfect number-systems, which have, at their initial states, symmetrical geometric-forms in the cosmic enclosure. The perfect number system  $C_{S_{28}}$  (or  $C_{S_{24+4}}$ ) is generated numerically by:  $(1*2*3*4)+4+12-12=28$ . Similarly, the perfect

number-system  $Cs_6$  that is formed by only  $Bs_1$ ,  $Bs_2$ , and  $Bs_3$  is generated numerically by:  $(1*2*3)+3-3=6$ . The idea is how to reckon the remaining surplus of HESBs in the system after the joining process, taking into consideration that the HESBs of  $Bs_2$ s will be released out of the system during this process, so their quantity should be subtracted.

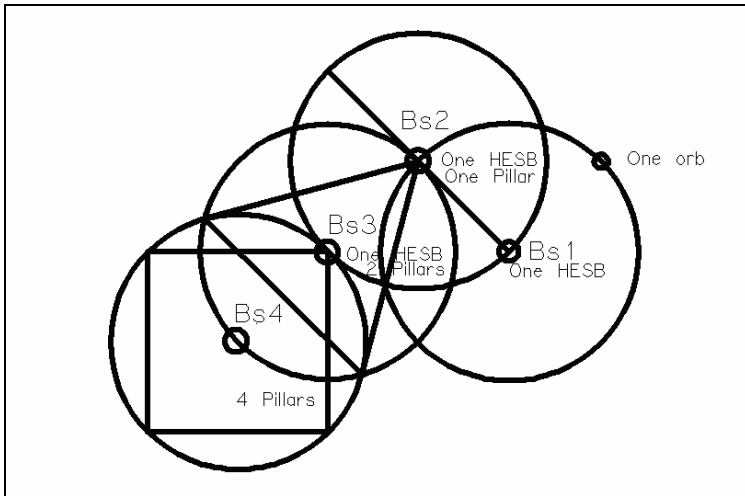


Figure-3: An imaginary projection plan shows the joining between the typical 4 basic systems of  $Cs_{24+4}$ . It shows one wing of the system. Presuming that  $Bs_4$  is not carried by other system, its 4 pillars will remain without change. First, one of  $Bs_3$ 's pillars will join with one orb of  $Bs_4$  to form one HESB, thus each  $Bs_3$  will have one HESB and 2 pillars; for four  $Bs_3$ s they will be 4 HESB and 8 pillars. Second, one of  $Bs_2$ 's pillars will join with one orb of  $Bs_3$ , thus each  $Bs_2$  will have one HESB and one pillar; for 12  $Bs_2$ s they will be 12 pillars, and the 12 HESBs that will be released out of the system. Third, the pillar of  $Bs_1$  will join with one orb of  $Bs_2$ ; thus, each  $Bs_1$  will have one HESB and its orb will remain; for 24  $Bs_1$ s, they will be 24 HESBs.

On this account, it should be noted here that, the other methods that are introduced by the later *Pythagorean* [3,4] on how to generate a perfect number lack the purpose; as they did not observe numbers as physical systems. Or perhaps they followed the Egyptian traditions of never talk about the secrets of sacred knowledge. The definition of Euclid [3,5] and the later mathematicians[3,20], e.g., a perfect number is that equal to its aliquot parts, is only one of the cases of complex systems, that were dealt with in an abstract numeric way.

The formula for generating the structure number of any  $C_s$  that is assembled by four different orders of basic systems, in which  $B_{s1}$  is a necessary input, is:

$$C_{S_n} = (1*i*j*k) + k + (j*k) - (j*k) \quad (2)$$

If  $i$  and  $j$  are always 2 and 3, respectively, and  $k$  is any even number from 4 to less than 360, the system's initial form will always be a pyramid, and transforms to a cone when  $k$  approaches 360 or more. That is,  $C_{S_{24+4}}$  is the first pyramid of a square base and  $C_{S_{2160+360}}$  is a cone. Both  $C_{S_{28}}$  and  $C_{S_{2520}}$  were respected systems in ancient Egypt, which represent the beginning and the end of pyramidal transformations in the cosmic enclosure. There are other types of number-systems that have entail symmetric forms like a wheel, e.g.,  $C_{S_{1560}}$



that is generated numerically by:  $(1*3*17*30)+30+510-510=1560$ .

Architectonically, we can imagine that the initial forms of some atoms and solar systems are similar to perfect number-systems, taking into consideration that the retrieved scenario of complete evolution of the complex systems will be discussed in detail in section-2. For this, I shall presume that, in atoms, the number of their systems is the number of their neutrons, i.e., the surplus of HESBs. However, from this perspective, a Hydrogen atom matches  $B_{S_1}$ ; and one can assume that its initial state is a neutron, as beta decay generates the main components of a Hydrogen atom [14,21]. Perhaps, at the scale of atoms, the rest of basic systems are unobserved because their lifetime is too short.  $C_{S_{28}}$  (or  $C_{S_{24+4}}$ ) matches the Chromium atom, where in this case, its 24 pillars are similar to the protons and its 24 orbs are similar to the electrons. In addition,  $C_{S_6}$  matches the Carbon atom.

One can also imagine that, many of the known atoms are like imperfect number systems. During the assembling process of a  $C_s$  (e.g., an atom), if any of its  $B_{S_1}$ s carried another  $B_{S_1}$ , it increases its HESBs (e.g., neutrons). Similarly, if any of its  $B_{S_2}$ s carried another  $B_{S_2}$ , it increases both its orbs (e.g. electrons) and its pillars (e.g., protons). In both cases, the system will be imperfect; similar cases generate the ar-

ray of imperfect systems similar to the isotopes. In some complex systems, however, the process of increasing their HESBs, due to the excess loads of  $B_{S_1S}$ , transforms the system's HESBs again into a perfect state, i.e., uniform distribution and symmetry. An example is  $C_{S_{117}}$  (or  $C_{S_{104+13}}$ ) that matches the Platinum atom. It is similar to the perfect number-system  $C_{S_{117}}$  that could be generated numerically as follows:  $(1*2*4*13)+13+52-52= 117$ . Besides, radioactive elements may be seen similar to the complex systems that are still in the process of releasing the HESBs of their  $B_{S_2S}$ , either in assembled or disassembled forms.

Now, I think, for reasons will be discussed in the coming sections, that the giant size of  $C_{S_{28}}$  matches our solar system. These sections include discussions on the complete evolution of this giant system, from its initial pyramidal form into becoming one multi-ringed-system, and on its intrinsic attributes: its architectonic musical law and its diverse to one-same tuning law. I shall call it hereafter as  $C_{S_{24+4}}$ .

## *Section-2.*

### *The Architectonic Law of Music of the Spheres*

In the beginning, I shall presume that each  $B_s$  has a module of rotation; it is the smallest thrust contour in the system's ring. It takes place within the system's nucleus, since the ring starts actually from the center of the system, like a disk. Second, I shall presume too that the perimeter  $M_b$  of a module of rotation is the system's measurement unit. Then, as a general condition, and for some reasons will be discussed in section-3, any point on any thrust that is less than  $X$  in the system's ring travels the same distance  $X$  in  $T_b$ . Then, while the orbs, or any point on the thrust  $X$ , perform(s) one simultaneous cycle in  $T_b$ , the module  $M_b$  performs several cycles, i.e.,  $M_b$ , as the smallest thrust, is the cyclic unit of  $X$ . Therefore, the imaginary architectonic cyclic frequency  $\omega_b$  of a  $B_s$  is given by Eq.3.

$$\omega_b = \frac{X}{M_b} \quad (3)$$

Since the applied compression forces are uniform and perpetual,  $\omega_b$  is harmonic, and since  $M_b$  is the system's unity,  $\omega_b$  equals  $X$ . In unloaded  $B_s$  that carries only the external compression forces, its own

semi-elliptic thrust- $X$  represents, geometrically, the length of the actual load that the system's nucleus carries. If the thrust- $X$  is being transformed into one concentrated load that applies directly on the system's nucleus, it will represent a load vector  $R_Z$  that equals in magnitude and travel length to that thrust  $X$ . Besides, if  $R_Z$  is used as a radius, it identifies the circular perimeter  $P_Z$  of the system's limit of zero-load<sup>i</sup>, as shown in fig-4. Under any circumstance, the nucleus of unloaded  $B_s$  does not carry any external loads beyond this limit. Since the load vector  $R_Z$  equals  $X$ , we can also observe  $\omega_b$  as the architectonic cyclic frequency of  $R_Z$ . Eq.3 may also be used to get the architectonic frequencies for different load vectors less than  $R_Z$  in a  $B_s$ , presuming that any of them is  $X$  of a separate system having the same  $M_b$  size. Thus, the lower (small) the radius the lower is its frequency. However, due to that any lower (small) load vector is part in the system, the lower the radius the higher the load, and accordingly the higher the orbiting velocity. If we imagine that  $R_Z$  is a high-rise building, where its foundation is the system's nucleus, in structure design, the load on a column in the sixth floor is more than that on the same column in the thirteenth floor and the load will be

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<sup>i</sup> Empirically, in the rock medium of megalithic structures, the angle of load refraction away from the center of an arch is about  $60^\circ$ ; here, in an ethereal medium, if  $R=1$ , I presume that the maximum load refraction angle =  $A \tan (2\pi R)/(R/2) = A \tan 4\pi = 85.45^\circ$

zero at the roof of this building. Thus,  $\omega_b$  as an imaginary architectonic frequency indicates the harmonic level (tone) that upon which the load will be identified.

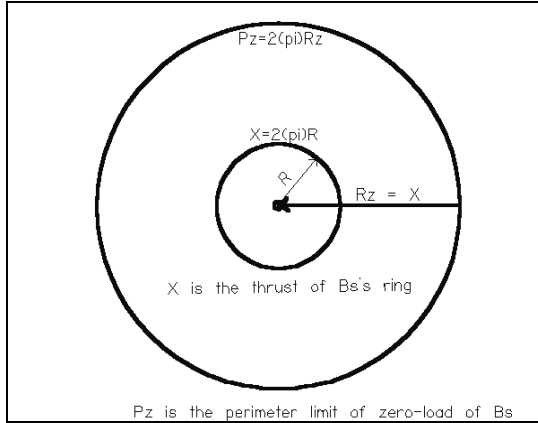


Figure-4: The main architectonic components of a basic system. The thrust- $X$  in an abstract circular shape and the load vector  $R_z$  that equals  $X$  and identifies the perimeter limit of zero-load of a basic system.

In complex systems, the case is quit different. If the 64 orbs of  $C_{S_{24+4}}$  performed simultaneously in  $T_b$  one cycle around their nuclei, due to the four directional motions of  $C_{S_{24+4}}$ 's sub-basic-systems, the actual collective load vector  $R_{Zc}$  that applies on the nucleus of the system's base " $B_{S_4}$ " is given by Eq.4.

$$R_{Zc} = X * 2X * 3X * 4X = 24X^4 \quad (4)$$

Eq.4 is based on that  $R_Z$  of each  $B_s$  works as a force that generates a moment (turning force) on the nucleus of the  $B_s$  that carries it. We can imagine that the nuclei of  $B_{s1}$ ,  $B_{s2}$  and  $B_{s3}$  are carried on the limits of zero-loads of  $B_{s2}$ ,  $B_{s3}$ , and  $B_{s4}$  respectively, as shown in fig-5.

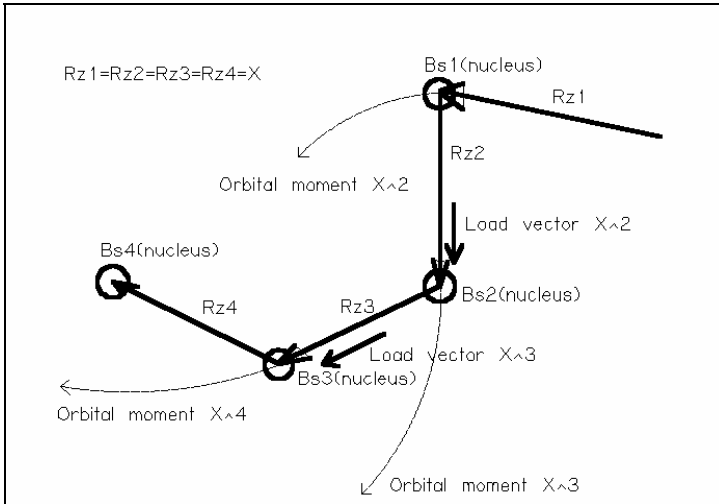


Figure-5: The carrying workability of one of the 24 wings of  $C_{s_{24+4}}$ . It shows the generated orbital moments:  $X^2$ ,  $X^3$ , and  $X^4$  around the nuclei of  $B_{s2}$ ,  $B_{s3}$ , and  $B_{s4}$  respectively during one cycle per the periodic time  $T_b$  of a  $B_s$ .

Then,  $R_Z$  of  $B_{s1}$  will generate a moment equal to  $X^2$  on  $B_{s2}$ 's nucleus. This moment is similar to an orbital thrust around  $B_{s2}$ 's nucleus. It represents the actual load that applies on it. This load may be transformed into a load vector that generates a mo-

ment equal to  $X^3$  on  $Bs_3$ 's nucleus. Similarly, the load vector of the moment  $X^3$  generates a moment equal to  $X^4$  on  $Bs_4$ 's nucleus. For the 24 wings of the system, the collective load vector  $R_{Zc}$  equals  $24X^4$ ;  $R_{Zc}$  as a radius identifies the perimeter limit of zero-load  $P_{Zc}$  of  $Cs_{24+4}$ .

In other words, geometrically, as shown in fig-6, repeating  $X$  during the system's four directional motions generates  $R_{Zc}$ ; where it is the total sum of thrusts' images that encoded itself in multi cross-sections of the cosmic enclosure. For each  $Bs_1$ , repeating its  $X$  along  $Bs_2$ 's  $X$  gives  $X^2$ ; then repeating  $X^2$  along  $Bs_3$ 's  $X$  gives  $X^3$ , and finally repeating each unit layer of  $X^3$  (each like  $X^2$ ) along  $Bs_4$ 's  $X$  gives  $X^4$ . For the 24 wings, the total sum of repeated images will be  $24X^4$ . Here,  $24X^4$  is the real encoded volume of  $Cs_{24+4}$ 's architectonic structure that its-observed volume equals only  $48X^3$ .

Moreover, since basic systems, of similar  $X$  size, generate  $Cs$ , the imaginary architectonic frequency  $\omega_x$  of  $Cs_{24+4}$ 's limit of zero-load  $R_{Zc}$  will also be  $X$ , where  $M_b$  is its module and that from Eq.4 is given by Eq.5.

$$\omega_x = X = \sqrt[4]{\frac{R_{Zc}}{24}} \quad (5)$$

Unlike Eq.3 that deals with  $\omega_b$  as the product of a single directional motion of  $B_s$ , Eq.5 deals with  $\omega_x$  as a product of the four directional motions of  $C_{S_{24+4}}$ 's sub-basic systems. Since,  $\omega_b$  of basic systems is harmonic,  $\omega_x$  is also harmonic.

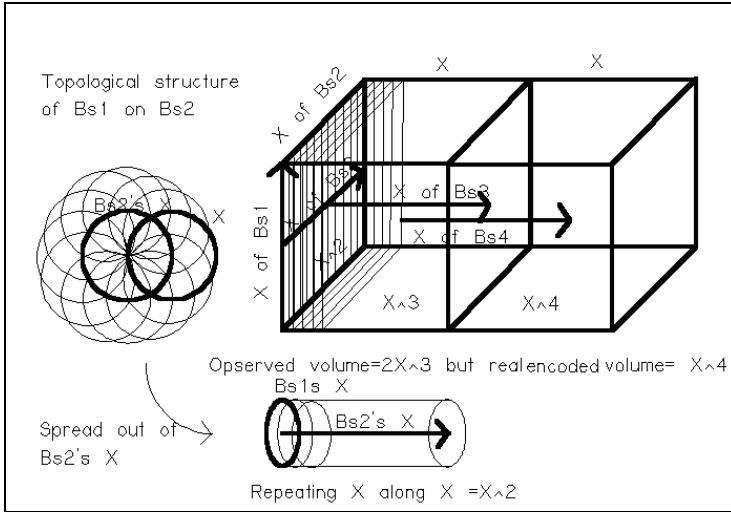


Figure-6: The linear model of the encoded images of thrusts for one-wing in  $C_{S_{24+4}}$  that will be generated during one cycle/ $T_b$ . The observed volume of one wing is only  $2X^3$ , however its real encoded volume is  $X^4$ . For the 24 wings of  $C_{S_{24+4}}$ , the observed volume will be  $48X^3$ , and the real encoded volume is  $24X^4$ .

Eq.5 may also be used to get the architectonic frequencies of different radii or load vectors less (lower) than  $R_{Zc}$  in  $C_{S_{24+4}}$ . Thus, we can put it in the form of Eq.6.



$$\omega_d = \sqrt[4]{\frac{R_d}{24}} \quad (6)$$

Where,  $R_d$  is any radius in  $Cs_{24+4}$  that differs<sup>ii</sup> from  $R_{Zc}$ , and  $\omega_d$  is the architectonic frequency of that different radius.

Furthermore, right after the joining process, I presume that the architectonic structure of  $Cs_{24+4}$  will transform, in topological manner, into a multi-ringed-system with one nucleus and multiple protecting rings around it. This transformation will take place within the system's limit of zero-load  $P_{Zc}=2\pi R_{Zc}$ , while conserving its architectonic frequency  $\omega_x$  that represents its main intrinsic property. Then,  $P_{Zc}$  will be the circumference of the system's outer ring.

I shall also presume that  $Cs_{24+4}$ 's rings will be 46 in total; and they have the following sequence from the nucleus: 4 rings correspond to  $Bs_4$ , one ring gap, 12 rings correspond to  $Bs_3s$ , one ring gap, 24 rings correspond to  $Bs_2s$  and 4 rings as a cover for the system since it has a fourth order base.  $Bs_1s$  will not build rings, as their orbs will sail in the rings of  $Bs_2s$ .

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<sup>ii</sup> In ancient terminology,  $R_d$  is radius of the-other, or radius of a diverse local orbit; and  $R_{Zc}$  is radius of the-same (one), or radius of the outer orbit of the system.

Besides, due to the harmonic attribute of the system, I presume that the two-limits of each of the 46 rings will match the limits of diatones (half tones). Taking  $\omega_d$  of the mean radius of the system's nucleus as the first musical tone for the diatones of the system's rings, the musical tone " $\omega_x$ " of  $R_{Zc}$  will denote the system's musical name. Moreover, since musical octave contains 12 diatones [22a,b] and its second harmonic is twice its first harmonic [14], the ratio  $l$  between the frequencies of two successive diatones is  $2^{-12}$ , i.e.,  $l = 1.059463094$  approximately.

In music, the typical musical octave starts from the note C or *Do* [22a]; however, a musical octave may start from any note [22b], e.g., from " $A_2$ " or  $La_2 = 110$  cycles/second to its second harmonic  $La_3 = 220$  cycles/second. The symbols of the 12 musical notes of an octave are *A, A#, B, C, C#, D, D#, E, F, F#, G, and G*; where they mean *La, La#, Si, Do, Do#, Re, Re#, Mi, Fa, Fa#, Sol, and Sol#*, respectively. The symbol # means major.

If  $M_b$  of our solar system is the decameter, according to NASA's planetary fact sheets [16a], our Sun's radius equals  $0.695 \cdot 10^8$  decameter. Then, using Eq.6,  $\omega_d$  of our Sun's radius equals 41.25 cycles per  $T_b$  of  $X$  of our solar system. Accordingly,  $\omega_x$  of  $R_{Zc}$  of our solar system equals  $41.25 \cdot (l^{46}) = 588$  cycles/ $T_b$ , which is equivalent to the note " $D_4$ " or  $Re_4$ ; it is the third harmonic [22] of  $D_2 = 147c/s$ . In addition, using Eq.4,

$R_{Zc}$  of our solar system is equal to  $28,689 \cdot 10^8$  decameter (about 192AU or  $192 R_d$  of Earth). Since  $\omega_x$  equals  $X$ , it denotes the size of basic systems that might constructed our solar system, where it is based on the assumption of  $M_b$ 's quantity. Using the multiple  $10^4$  to increase  $M_b$ 's quantity, if  $M_b$  of our solar system is set as  $10^4$  or  $10^8$  of a decameter, the corresponding architectonic frequencies will be  $1/10$  or  $1/100$  of the mentioned notes respectively, while the size of  $X$  increases proportionally. In section-3, I shall identify the exact size of  $X$  of a system similar to our solar system.

Similarly, we can get the equivalent musical tone (architectonic frequency) of any radius in our solar system. The equivalent musical tone of Mercury's perihelion is close to  $La_2\# = 117c/T_b$ . Venus's aphelion is close to  $Re_2 = 147c/T_b$ . Earth's perihelion has a tone  $Re_2\# = 157c/T_b$ . Mars's perihelion is close to  $Fa_2 = 172 c/T_b$ . Jupiter's perihelion is close to  $La_3\# = 234c/T_b$ . There is nearly one octave between Mercury's perihelion and Jupiter's perihelion; it is the first of the two musical octaves of  $Bs_2$ 's rings of our solar system. The musical tone of earth's perihelion ( $Re_2\# = 157c/T_b$ ) is nearly similar to that of  $R_{Zc}$  of the solar system ( $Re_4 = 588 c/T_b$ ), i.e., life exists at two octaves below  $R_{Zc}$ . This might imply that, in any  $C_s$ , e.g., extra-solar systems, life may exist near to orbits with architectonic frequencies similar to that of  $R_{Zc}$  of these systems.

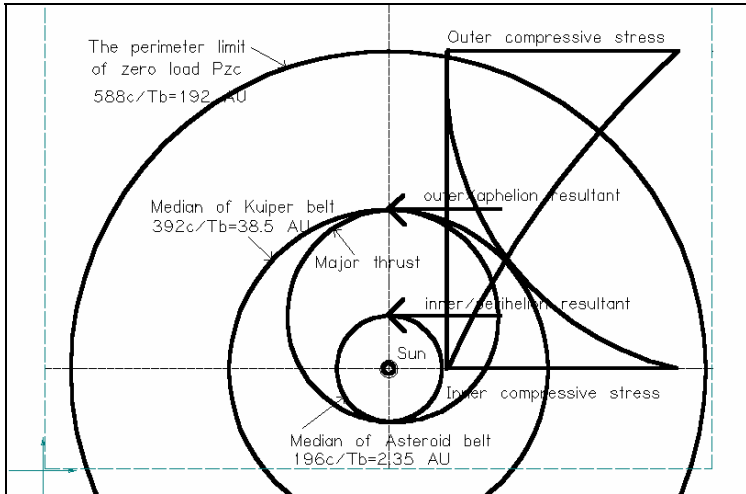


Figure-7: The two main resultants of the fluctuated compressive stress in  $C_{S_{24+4}}$ 's combined ring. For the maximum permissible load, due to that the ring is being under only compressive stress, the stress diagram for any of its cross sections will be only in the compression side. The resultant of each stress diagram for any cross section will denote the location of the thrust in that cross section. At the aphelion-point, the maximum compressive stress will apply on the outer limit of the ring with zero stress in the system's center. At the perihelion-point, the maximum compressive stress will apply on the center of the system, with zero stress in the outer limit of the ring. Due to that, the combined ring has multiple major-thrusts in its middle-third, its outer and inner circular-limits contain the array of the perihelion and aphelion points of these multiple thrusts. Thus the two resultants are in continues revolution and apply on any cross section of the combined ring denoting the two limits of its harmonic middle third. The compressive stress diagram of the ring's cross-section(s) is not linear, due to the harmonic distribution of loads.

If we imagine that the 46 rings form one combined ring (like a disk), the major architectonic thrust of

the system will have a perihelion and aphelion at the inner and outer limits of the harmonic middle third of the combined ring. At these two limits, the two resultants of the fluctuated compressive stress diagrams [23] those apply on the cross section of the ring take place, as shown in fig-7.

In our solar system, the inner limit matches the median circle of the asteroid belt at  $\omega_d = 588/3 = 196c/T_b$ , and using Eq.4, its radius equals  $354 \cdot 10^8$  decameter ( $354 \cdot 10^6$  km). The outer limit matches the median circle of the Kuiper belt at  $\omega_d = 588 \cdot (2/3) = 392c/T_b$ , and using by Eq.4, its radius equals  $5,667 \cdot 10^8$  decameter (about 38 AU). These two distances agree with the published data of both belts [16,17,&18]. Another reason that makes the inner limit (i.e., asteroid belt) the major disposal for  $CS_{24+4}$ 's debris will be discussed in the following section.

### *Section-3.*

## *The Architectonic Law of Spinning Motion*

The following are the primary assumptions concerning the spin of orbs and nuclei of basic systems that I shall endeavor to prove it when discussing in details the spin of orbs and nuclei of cosmic number-systems, e.g., plants, natural-satellites, and the Sun of our solar system.

In an unloaded  $B_s$  that may carry the nucleus of other  $B_s$ , an orb of the first should thus be in the ready state to be able to carry the nucleus of the second and transfers its load to the thrust  $X$  of its home system. Normally, as I did presume earlier, an orb of a  $B_s$  travels actually on the thrust  $X$ , however, due to the harmonic process (in cycles) of load-transfer between two basic systems, it will carry a  $B_s$ 's nucleus that is located imaginary at the limit of zero-load of its home system. This means, the orb will transfer the orbital force of the moment that has been generated by the load vector  $R_Z$  of the carried system to the thrust  $X$  of its home system. This orbital force is, in fact, a thrust that matches the perimeter of zero-load  $P_Z$  of the carrier system; its perimeter equals  $2\pi R_Z$  and  $T_b$  is its orbiting time-period, i.e., the thrust  $X$  and the orbital moment ( $P_Z$ ) have the same angular velocity. The orb is then free

to jump-outwards to  $P_Z$  of its system in a proper point in time in order to carry (join with) the other  $B_s$ 's nucleus and together return back to the thrust that has a force-load equal to the load it carries (e.g., in this case it will be  $X$ ). Then, the load of  $X$  will be the total moment that applies on the carrier-system's nucleus.

Furthermore, we can imagine that, as said earlier, geometrically in a  $B_s$ , the actual carrying load of any of its thrusts is the travel length that any point on these thrusts performs in  $T_b$ . In this case, the orb achieves its carrying workability via that, any point on the orb's equatorial thrust  $P_o$  (its domain and steering thrust) should travel a distance in  $T_b$  equal to  $P_Z$  that represents the load length it carried, and it was ready and able to carry. Accordingly, before and after carrying, the orb that is steered by its domain-thrust  $P_o$  performs several cycles  $\alpha$ , in  $T_b$ , in order to transfer the load length  $P_Z$  to its thrust  $X$ ; then and only then, it will be ready to perform the carrying job. Hence, we can say, the orb's spin  $\alpha$  is a mechanism for load-transfer in  $T_b$ ; and at that time,  $\alpha * P_o = 2\pi R_Z = 2\pi X = P_Z$ . Besides, since  $\omega_b = X = R_Z$  of  $P_Z$ , we can say that the orb conserves  $\omega_b$  in its carrying workability. Moreover, we can imagine that an  $X$  of a  $B_s$  is a  $P_Z$  of a minor thrust that its perimeter  $P_M$  equals  $R$ . During the ready state, if the orb runs on the orbit-thrust  $P_M$ , it carries only the load  $X$  and

thus its spin in  $T_b$  will be  $S$ , where  $S * P_o = X$ , and  $\alpha = 2\pi S$ .

We can also presume that an orb will spin with the same rate, according to its carrying load, disregard to the change in the tilt of its equatorial plane in relation to the equatorial plane of its  $B_s$ , because the load will not change. Besides, in unloaded  $B_s$ , e.g.,  $B_{s1}$ , that is carried by other system and it is in a condition that it does not carry any thing but itself, it is expected that, its orb will become in a state of rest or in a sleeping mood. In this case, the sleeping orb will not spin, and thus it will have a fixed orientation in relation to the system's nucleus while orbiting it similar to any point of the thrust- $X$ .

Moreover, since both an orb and a pillar are equally stressed, the pillar carries also the orbital moment that is represented by  $P_z$  during a ready state; thus, its spin  $\alpha_p$  is given by:  $\alpha_p * P_p = P_z$ , where  $P_p$  is perimeter of the pillar's domain equatorial thrust. On the other hand, the nucleus of unloaded  $B_s$  carries, in a ready state, the mean orbital load of the system, i.e., the orbital moment at the radius that has a mean architectonic frequency equal to  $0.5\omega_b$ , which equals  $0.5X$ ; thus, the nucleus carries  $\pi X$ . Then, its spin  $\alpha_n$  in  $T_b$  is given by:  $\alpha_n * P_n = \pi X$ , where  $P_n$  is the perimeter of the nucleus's domain equatorial thrust.



Now, in Cs, the case is more complex but amazingly organized and needs the following extended explanations and assumptions as first principles for establishing the spin equations of the actually loaded orbs of  $Cs_{24+4}$ . Following *Plato's* definitions [2], in  $Cs_{24+4}$ , the perimeter of any of the inner rings' thrusts (or the thrusts of combined rings or parts of rings) will be named hereafter as "the perimeter of a diverse orbit" ( $P_d$ ). The perimeter of the outer ring's thrust will be named as "the perimeter of the same" ( $P_X$ ) where  $\omega_x$  is the architectonic frequency of its radius. The thrust  $P_X$  may be a circle and matches the perimeter of zero-load  $P_{Zc}$ , if the difference between the frequencies of the inner and outer radii of its ring approaches but not equal zero. We can assume that the diatone of the system's outer ring is divided into micro-tones, where  $P_X$  is the thrust of the outermost micro-tonal ring.

Besides, any point on  $P_X$  performs one orbiting cycle in  $T_X$ , and any point on  $P_d$  performs one orbiting cycle in  $P_d$ 's local time-period  $T_d$ . An orb runs only on a  $P_d$  based on conserving  $\omega_x$  of  $Cs_{24+4}$ 's  $R_{Zc}$ , which implies that, the orb that is orbiting the system's nucleus at any  $P_d$  should conserve the condition as if it is orbiting at the thrust  $P_X$ . Thus, it should perform several orbiting cycles  $K_{Vd}$  in  $T_X$  in order to travel a distance equal to  $P_X$ , i.e.,  $P_X = K_{Vd} * P_d$ . This means that at any  $P_d$ , the orb's velocity  $V_d$  per  $T_X$  is constant, while its  $V_d$  is variable and

has diverse quantities per  $T_d$  of each  $P_d$ . Moreover, each  $P_d$  of  $Cs_{24+4}$  is as  $X$  of  $Bs$  that has its own  $P_Z$ ; i.e.,  $P_{Zd} = 2\pi P_d$ . In  $Cs_{24+4}$ ,  $P_{Zd}$  of any  $P_d$  is imaginary a product of a single motion; and on the contrary,  $P_{Zc}$  or  $P_X$  is the product of four directional motions. Besides, there will be a diverse thrust  $P_{dM}$  that its  $P_{Zd}$  matches  $P_{Zc}$  or  $P_X$  of  $Cs_{24+4}$ . Thus,  $P_{dM}$  will be the outermost median-thrust (load) between some perihelion and some aphelion for  $Cs_{24+4}$ 's orbs. Accordingly, as an example, in our solar system, its radius  $R_{dM}$  would be about 30.5 AU.

Since  $Cs_{24+4}$  is not isolated from the rest of the cosmic enclosure, some of its orbs may carry the nuclei of other systems. We can classify them in two types: a system-carrier-orb that carries  $Bs_n$ , and an ion-carrier-orb that carries only a  $Bs_1$ 's base. Any orb of  $Cs_{24+4}$  should conserve  $\omega_x$  in its spin, i.e., the spin  $\alpha$  of an orb conserves the condition that any point on the orb's steering thrust travels a distance equal to  $P_{Zc}$  (or  $P_X$ ) in  $T_X$ . However, as we shall see, each orb achieves this condition according to the type of load and the carrying workability.

We can also assume that the observed motion of a system-carrier-orb running on a  $P_d$  is, at most, the product of seven motions (6 + the motion of  $P_X$ ) that we can divide into two groups of four motions, since the motion of a  $P_d$  participates with the two groups. I shall name Group-1 as the "steering

mechanism" that links the spinning motion of an orb with the motion of its  $P_d$ . And, I shall name Group-2 as the "harmonization mechanism" that links the motion of a  $P_d$  with the motion of  $P_X$ , which conserves the condition:  $P_X = K_{Vd} * P_d$ . When taking into our consideration that, the motion of the frame of reference  $P_X$  is the product of the four directional motions of  $Cs_{24+4}$ , the observed motion of a system-carrier-orb is then the product of ten motions at most. In section-4, I shall add another one that makes them eleven motions in total.

Firstly, as shown in fig-8, Group-1 is composed of a  $P_d$  and one or two levels of steering-thrusts that have the same center of rotation, which is the center of the orb; i.e., they are carried on a  $P_d$ . Although we are speaking about semi-elliptic thrusts, each has only one center, which is the center of, an imaginary, sub-circular-ring that through which a thrust passes within its harmonic middle third HMT. We can imagine that the steering mechanism of any system-carrier-orb as multiple levels of thrust-contours that each level is composed from the three typical thrusts of a  $Bs$ :  $P_Z$ ,  $X$  and  $P_M$ . The outer contour-level includes  $P_{Z3}$ ,  $P_3$ , and  $P_{M3}$ ; and the second inner level includes  $P_{Z2}$ ,  $P_2$ , and  $P_{M2}$ , where the perimeter of any thrust, of any level, is equal to  $S$  times its comparable thrust in the contour level below it, i.e.,  $P_{Z3} = S * P_{Z2}$  and so on. It is similar to the correlation

between  $X$  and  $P_o$  in  $B_s$ ; besides, in this case both have the same center.

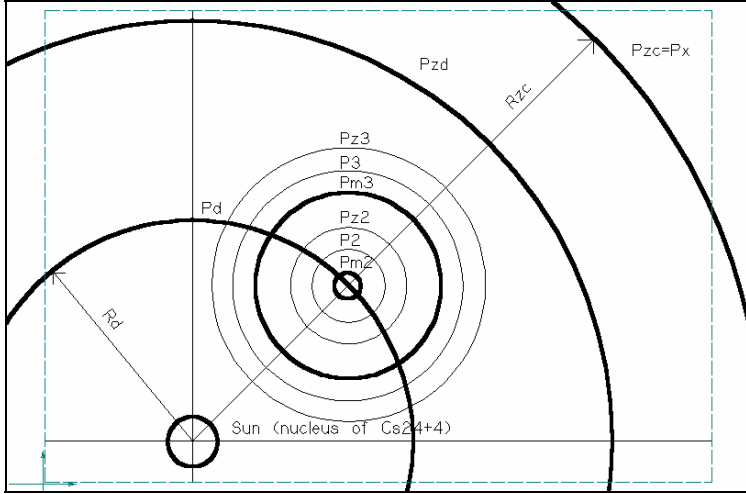


Figure-8: The thrust contour levels of the steering mechanism of a system-carrier-orb in  $Cs_{24+4}$ . They are carried on a diverse thrust  $P_d$ . In the ready state, these thrusts carry the orbital moment that applies at the perimeter of zero-load  $P_{zd}$  of their  $P_d$ , and the latter carries the orbital moment at the perimeter of zero-load  $P_{zc}$  of  $Cs_{24+4}$  (the perimeter of the same  $P_x$ ). Their motions conserve the architectonic cyclic frequency  $\omega_x$  of  $R_{zc}$  of  $Cs_{24+4}$ .

The geometric perimeter of any of these thrusts can be reckoned using Eq.1; however, for simplicity I shall put them hereafter as  $P_{z3}=2\pi R_{z3}$ ,  $P_3=2\pi R_3$  and  $P_{M3}=2\pi R_{M3}$ , where  $R_{z3}$ ,  $R_3$ , and  $R_{M3}$  are their mean radii respectively, and similarly for the second inner level. As we shall see, it is expected that in most cases, e.g., in our solar system, loaded orb may take

either  $P_{M3}$  or  $P_{M2}$  as a domain-thrust for the nucleus it carries; and related to the radius's architectonic frequency, of the  $P_d$  it chooses. However, in all cases,  $P_3$  is the steering-thrust that to which the observed spin belongs. If  $P_{M3}$  was the domain-thrust, the inner contour-levels take place inside the carried nucleus, e.g., the planet.

Since, an orb is a foundation for other system's nucleus; we can presume that it has a working radius  $R_W$ , relative to its carrying state. In a solar system,  $R_W$  may equal the mean observed radius of the planet's equator. Or  $R_W$  may equal the radius of the planet's domain-thrust ( $R_{M3}$  or  $R_{M2}$ ) or deviate from it with a factor  $Y$ ; i.e.,  $R_{M3} = Y_3 * R_W$ , or  $R_{M2} = Y_2 * R_W$ ; where  $Y$  indicates the location of the planet's domain-thrust in relation to its actual working thrust  $P_W$ . If  $Y=1$ , the planet's  $P_W$  is equal to its domain-thrust, and then the planet's observed size follows the norm of  $C_{S24+4}$ . However, if  $Y < 1$ , the planet's domain-thrust is below its  $P_W$  and if  $Y > 1$ , the planet's domain-thrust is above its  $P_W$ .

The steering mechanism achieves the condition that any point on the planet's working (but equatorial) thrust ( $P_W$ ) travels a distance equal to  $P_d$  in  $T_d$ . Here we can presume that,  $P_d$  and the steering thrusts  $P_3$  and  $P_2$  are similar to the thrust- $X$  of a  $B_s$ , where  $P_{Zd}$ ,  $P_{Z3}$ , and  $P_{Z2}$  are their perimeters of zero-load or their perimeters of the same. Accordingly, we can

imagine that the steering mechanism works based on the following four conditions.

First,  $P_3$  performs  $\alpha$  cycles in  $T_d$  in order that any point on it travels a distance equal to  $P_{Zd}$ , where  $\alpha=2\pi S$ , and  $S^*P_3= P_d$ . Thus,

$$\alpha * P_3 = 2\pi * P_d \quad (7)$$

Second, for an orb that takes  $P_{M3}$  as a domain thrust for the nucleus (planet) it carries.

$$P_3 = 2\pi * P_{M3} \quad (8)$$

Third, for an orb that takes  $P_{M2}$  as a domain-thrust for the nucleus (planet) it carries,  $P_2$  performs  $\alpha$  cycles in  $T_d$ , similar to  $P_3$ 's cycles, in order that any point on  $P_2$  travels a distance equal to  $P_{Z3}$ , where  $\alpha=2\pi S$ , and  $S= P_3/P_2= P_d/P_3$ . Thus,

$$\alpha * P_2 = 2\pi * P_3 \quad (9)$$

Fourth,

$$P_2 = 2\pi * P_{M2} \quad (10)$$

Then, by substituting the quantity of  $P_3$  from Eq.9 in Eq.7, we get Eq.11.

$$\alpha^2 * P_2 = (2\pi)^2 * P_d \quad (11)$$

In addition, by substituting the quantity of  $P_3$  from Eq.8 in Eq.7 and substituting the quantity of  $P_{M2}$  from Eq.10 in Eq.11, we get Eq.12 and Eq.13, respectively.

$$\alpha * P_{M3} = P_d \quad (12)$$

$$\alpha^2 * P_{M2} = 2\pi * P_d \quad (13)$$

Then, if we inserted the factor  $Y$  in Eq.11, Eq.12, and Eq.13, and put the approximate quantities of  $P_d$ ,  $P_2$ , and  $P_{M2}$ , we get the spin equations of  $C_{S24+4}$ 's system-carrier-orbs.

$$\alpha * Y_3 * R_W = R_d \quad (14)$$

$$\alpha^2 * Y_2 * R_W = (2\pi)^2 * R_d \quad (15)$$

$$\alpha^2 * Y_2 * R_W = 2\pi * R_d \quad (16)$$

Using the data in NASA's planetary fact sheets of our solar system [16b], I found that Eq.15 matches the case of Pluto, where its  $Y_2=1$ . Eq.14 matches the case of Jupiter, Saturn, Uranus, and Neptune, where  $Y_3$  is nearly 1.0 for Jupiter and Saturn,  $Y_3=2.63$  for Uranus, and  $Y_3=2.0$  for Neptune. Eq.16 matches the case of both Earth and Mars, where  $Y_2$  is 1.1 for Earth and 0.9 for Mars.

For Earth,  $\alpha = 365.25 c/T_d$ , where  $T_X = K_{Vd} * T_d$ , and its  $S=58.13c/T_d$ . Since,  $\alpha = 2\pi S$ , Eq.16 may be put in the form:  $(2\pi * S^2 * Y * P_W = P_d)$ , where  $2\pi S^2 = K_\alpha$ ; and where  $K_\alpha$  is the cycles that the thrust  $P_{M2}$  performs

in  $T_d$ , i.e.,  $P_d = K_\alpha * P_{M2}$ . This implies too, as the equatorial radius (or  $R_W$ ) of Earth increases its spin reduces, for the same  $R_d$ . Besides, since  $P_3$  is the major steering thrust, the observed spin is only  $\alpha$ ; the motion of both  $P_{M2}$  and  $P_2$  is unobserved. The time of all steering thrusts is  $T_d$ , and the velocity of any point on any of them is constant and equals  $V_d$  of  $P_d$  of the planet.

Secondly, Group-2, or the harmonization mechanism, links the motion of a  $P_d$  with the motion of  $P_X$ . In between  $P_X$  and any  $P_d$ , I shall presume that there are two intermediate thrusts:  $P_E$  and  $P_F$ . Their mean radii are  $R_E$  and  $R_F$  respectively. In group-2,  $P_d$ ,  $P_E$  and  $P_F$  are similar to  $P_{M2}$ ,  $P_2$  and  $P_3$  in group-1 respectively; and  $P_X$  in group-2 is similar to  $P_d$  in group-1. Similarly, in group-2,  $V_d$ ,  $S_d$ , and  $K_{Vd}$  are similar to  $\alpha$ ,  $S$ , and  $K_\alpha$  in group-1, respectively; thus, in group-2,  $V_d = 2\pi S_d$  and  $K_{Vd} = 2\pi S_d^2$ , i.e.,  $V_d^2 = 2\pi K_{Vd}$ . In this case, Group-2 has only one possible condition. The correlation between the motions of  $P_X$  and a  $P_d$  will be similar to Eq.16 of group-1, thus, in group-2, I imagine that  $P_X$  (or  $P_{Zc}$ ) is as  $X$  of a  $Bs$  that has a  $P_Z$ , which is  $P_{ZX}$  that equals  $2\pi P_X$ . In our solar system,  $P_{ZX}$  equals 1,205 AU. Thus, Eq.17, Eq.18, and Eq.19 are similar to the equations of the first, the third, and the fourth conditions in group-1, respectively.

$$V_d * P_F = 2\pi P_X \quad (17)$$



$$V_d * P_E = 2\pi P_F \quad (18)$$

$$P_E = 2\pi P_d \quad (19)$$

Now, by substituting the quantity of  $P_E$  from Eq.19 in Eq.18, and then from the generated equation substituting the quantity of  $P_F$  in Eq.17, we get Eq.20.

$$V_d^2 * P_d = 2\pi P_X \quad (20)$$

Then, we get Eq.21.

$$V_d^2 * R_d = 2\pi R_X \quad (21)$$

In addition, if we substitute each quantity of  $R_d$  from (Eq.14, Eq.15, and Eq.16) in Eq.21 and since  $V_d^2=2\pi*K_{Vd}$ , we get the three orbiting-spin-equations of system-carrier-orbs in  $C_{S_{24+4}}$  and as I previously identified for the planets of our solar system, they respectively are:

$$K_{Vd} * \alpha * Y_3 * R_W = R_X \quad (22)$$

$$K_{Vd} * \alpha^2 * Y_2 * R_W = (2\pi)^2 R_X \quad (23)$$

$$K_{Vd} * \alpha^2 * Y_2 * R_W = 2\pi R_X \quad (24)$$

Where,  $K_{Vd}$  is the orbiting cycles that each of these orbs (or the points of any  $P_d$ ) performs, in  $T_X$ , in order to travel a distance equal to  $P_X$  of  $C_{S_{24+4}}$ , and thus it conserves  $\omega_x$  of the system. For Earth,  $K_{Vd}$  is

about 192 cycles; accordingly,  $T_X$  of our solar system is 192 Earth-years<sup>iii</sup>.

For ion-carrier-orbs, as Venus and Mercury, their spin-equations could be formulated as follows. Since,  $V_d^2=2\pi^*K_{Vd}$ , we can write Eq.20 in the form of Eq.25.

$$K_{Vd^2} * 2\pi Pd = P_X \quad (25)$$

If we imagine that, the ion-carrier orbs are in the ready state as the orbs of a  $B_s$ , before the moment of carrying, we get Eq.26.

$$\alpha * P_o = 2\pi P_d \quad (26)$$

Then, we can substitute the quantity  $(2\pi Pd)$  in Eq.25 with the left side of Eq.26. Besides, when these orbs become actually loaded with a base of a  $B_s$  (as an ion), their domain and steering thrust becomes  $X$  of that orb-less  $B_s$  instead of  $P_o$ ; thus, the orbiting-spin-equation for the ion-carrier orbs of  $Cs_{24+4}$  is as follows.

$$K_{Vd^2} * \alpha * X = P_X \quad (27)$$

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<sup>iii</sup> In the ancient Egyptian architectonic records,  $T_X=195$  Earth-years; and  $26T_X$  (5070 years) is the cycle of Armageddon (Hor-Maged-don), or  $\frac{1}{4}$  the time of earth's obliquity range.

Eq.27, shows that the ion-carrier-orbs also conserve  $\omega_x$  in their motions; besides, as  $K_{vd} * P_d = P_x$ ,  $X = 2\pi R$ , and  $P_d = 2\pi R_d$ , we get Eq.28.

$$P_x * \alpha * X = P_d^2 \quad (28)$$

Then, the spin equation for the ion-carrier orbs of  $C_{S_{2d+4}}$  is as follows.

$$R_x * \alpha * R = R_d^2 \quad (29)$$

We know from section-2 that  $R_x$  (or  $R_{zc}$ ) of our solar system most probably equals 28,689 million km. Using NASA's planetary fact sheets [16b],  $R_d$  for Venus and Mercury is 108.21 and 57.9 million km, respectively. Their observed  $\alpha$  is  $1.924 c/T_d$ , and  $0.5 c/T_d$ , respectively, i.e.,  $\alpha$  of these two planets is taken equal to the result of subdividing the "tropical orbit period" by the "length of day". Then, from Eq.29,  $R$  for Venus and Mercury is 0.212 and 0.234 million km, respectively, and accordingly their  $X$  equals 1.33 and 1.47 million km, respectively, taking into consideration that each of these planets has an  $X$  that differs from, and being less than,  $X$  of our solar system. Most probably,  $X$  of our solar system equals 5.88 million km for  $M_b$  equals 1.0 million-km. Hence, in relation to  $T_x$ , the  $T_b$  of  $X$  of our solar system is about 14.3 Earth-day. Besides,  $X$  of a  $B_s$  may be of any value, denoting a musical note;  $X$  for Venus and Mercury is equivalent to 1/100 the fre-

quency of the musical-notes:  $Do_2$  ( $C_2$ ) and  $Re_2$  ( $D_2$ ), respectively, while,  $X$  of our solar system is  $1/100$  the frequency of the note  $Re_4$  ( $D_4$ ). If the spin data of these two planets are incorrect and their  $X$  were the same as  $X$  of our solar system, we may say that these two planets might be part of the surplus of HESBs of the  $Bs_2s$  that have not yet leave the system.

Concerning the spin of a nucleus of a  $Cs$ , e.g., our Sun, as said earlier, the system's nucleus carries the mean orbital moment that applies on the system during the ready-state, i.e., it carries the load length of the thrust that the frequency of its mean radius equals half  $\omega_x$  of the system. In our solar system, half  $\omega_x = 0.5 * 5.88 = 2.94$  c/ $T_X$ . Then, by using Eq.6,  $R_d$  for that different architectonic frequency  $\omega_d$  is equal to  $1,793 * 10^6$  km. Hence, the spin of the Sun  $\alpha_n$  in  $T_X$  (192 Earth-years) equals the result of subdividing the perimeter of that median thrust by the equatorial-thrust's perimeter of the Sun, i.e.,  $\alpha_n = 2\pi(1,793 * 10^6) / 2\pi(696 * 10^3) = 2576.14$  c/ $T_X$ ; then,  $2,576.14 / 192$  gives 13.41 c/Earth-year. Here, each cycle is about 27.22 Earth-days, which matches the observed spin of the Sun, in NASA fact sheets [16b].

Furthermore, one can imagine that natural satellites (e.g., Moon and Titan) are as orbs of a carried  $Bs$ ; and thus they will not participate with other basic systems for assembling a  $Cs$ . Therefore, they are, in

the sleeping mood, and most likely, they do not spin. Due to this, I imagine that each natural satellite has a fixed orientation towards its system's nucleus (planet), and as known, the day of each is equal to its orbiting period. I can also imagine that the system of Earth and Moon is like a  $B_{S_1}$  that is carried on one of the orbs of  $C_{S_{24+4}}$  (our solar system). Thus, our planet Earth may be an HESB and our Moon may be the orb of that  $B_{S_1}$ . As mentioned in section-1, an HESB is composed from a male solid core inside a female spherical-shield (may be the terrestrial Atmosphere)<sup>iv</sup>.

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<sup>iv</sup> The ancient Egyptians depicted this basic principle in cosmic structure in their temples and tombs, i.e., they depicted earth like a man, and depicted the sky like a woman surrounding the earth.

## *Section-4.*

### *Gravitation and Music of the Spheres*

In Eq.21, since,  $V_d$  is cycles that the architectonic angular velocity of each is  $360^\circ$ , then,  $V_d$  may represent the velocity of any point on the thrust  $P_d$  in any given time scale. Eq.21 implies that as the radius  $R_d$  increases,  $V_d$  reduces; and when  $R_d$  equals  $R_X$ ,  $V_d^2$  equals  $2\pi$ . In our solar system,  $R_d$  equals  $V_d^2$  at nearly the median circle of the asteroid belt, where it is the neutral path of  $C_{S_{24+4}}$ . Here,  $V_d$  is the product of the load that applies on its thrust due to the four directional motions of  $C_{S_{24+4}}$ , and  $R_d$  is the altitude of the floor-level of that load. The neutral path differs from the path of the mean orbital moment; the latter is due to the ready state of the system, i.e., the system is ready to join with, or to carry other, systems, using its unloaded orbs that run, and could be found, near to its  $P_{dM}$ . The radius of the neutral path  $R_{NP}$  of our solar system could be given by  $R_{NP}^2 = R_d * V_d^2$ . Where  $R_d$  and  $V_d$  are the mean orbital radius (in million km, which equals  $M_b$ ) and the orbital velocity (per Earth-second) of a diverse (any) planet in our solar system, respectively.

Moreover, since  $V_d^2$  times  $R_d$  of any  $P_d$  in  $C_{S_{24+4}}$  equals  $2\pi R_X$ , the correlation between the velocities of two orbs ( $V_{d1}$  &  $V_{d2}$ ), in any given time-scale, and

the mean radii of their diverse thrusts ( $R_{d1}$  &  $R_{d2}$ ) could be reckoned using Eq.30.

$$V_{d1}^2 * R_{d1} = V_{d2}^2 * R_{d2} \quad (30)$$

If we substitute the radii in Eq.30 with their values from Eq.6 ( $R_d=24\omega_d^4$ ), we get the correlation between the velocities of two orbs and the imaginary architectonic frequencies of the radii of their diverse-thrusts.

$$V_{d1} * \omega_{d1}^2 = V_{d2} * \omega_{d2}^2 \quad (31)$$

Eq.31 implies that, in our solar system, the velocity that corresponds to 1/100 of  $\omega_d = La_2\#$  of  $117c/T_b$  (i.e., at 45 million-km from sun's center) will be 4 times the velocity for its second harmonic: 1/100 of  $\omega_d = La_3\#$  of  $234c/T_b$  (at 720 million-km from sun's center). Increasing  $\omega_d$  by one octave means its quantity became double, its  $R_d$  increased up to 16 times, and its  $V_d$  reduced down to its 1/4. Eq.30 and Eq.31 together constitute the architectonic harmonic-law of traveling in a steering ethereal structure-SES, which now I imagine and can say it is composed from the thrusts of rings (the harmonic ethereal fibers). I expect that this law should work not only in  $Cs_{24+4}$  but also in any  $Cs$  or  $Bs$  in the cosmic enclosure, no matter what its order or size is.

Since SES is the plane of the equatorial thrusts of any system, and each of these thrusts is an equator of a harmonic sphere that its surface is built by multiple thrusts parallel to its equatorial plane, as latitudes, Eq.30 and Eq.31 also link these latitude-thrusts. Taking into consideration that the velocity of latitude-thrusts of any orb in  $Cs_{24+4}$  in  $T_X$  is constant, due to conserving  $\omega_x$ . Moreover, we can also say, because spherical orbs, and perhaps any celestial body, are shaped primarily by an array of parallel and semi-elliptic-thrusts, they are not perfect balls.

Linking the architectonic-law of traveling in SES of two systems, where one of them carries the other, e.g., SES of  $Cs_{24+4}$  and SES of any of its system carrier orbs (e.g. planets) needs the following discussion. Since, the orbs are running on, and partly steered by, what looks like an imaginary musical strings, I presume that they resonate and transfer their orbits' velocities  $V_d$  to the initialization or index-thrust of their systems that upon which the velocity of a point on any thrust-curve in the orb's system can be reckoned using Eq.30. Based on reviewing the published data in NASA planetary fact sheets concerning the observed velocities of natural satellites of planets [16c], I found that the index-thrust of Earth, Mars and Pluto is  $P_{ZZ}$  (equals  $2\pi P_Z$ ) of the main thrust of a contour level of the steering mechanism. However, for planets of the second oc-



tave of  $Bs_2s'$  rings, excluding Jupiter,  $P_3$  was their index thrust. Then, for establishing their equations, the proposed contour-levels contain the following thrusts:  $(P_{Z3}-P_3-P_{M3})$ ,  $(P_{ZZ2}-P_{Z2}-P_2-P_{M2})$ ,  $(P_{ZZ1}-P_{Z1}-P_1-P_{M1})$ , and  $(P_{ZZ0}-P_{Z0}-P_0-P_{M0})$ .

Where,  $P_{Z3} = S * P_{Z2} = S^2 * P_{Z2} = S^3 * P_{Z1} = S^4 * P_{Z0}$ .

And,  $P_{ZZ2} = 2\pi P_{Z2}$ ,  $P_{ZZ1} = 2\pi P_{Z1}$ , and  $P_{ZZ0} = 2\pi P_{Z0}$ .

Upon this, we can put Eq.9 in the following form,

$$\alpha * P_{Z2} = (2\pi)^2 * P_3 \quad (32)$$

Similarly,

$$\alpha * P_{Z1} = (2\pi)^2 * P_2 \quad (33),$$

And,

$$\alpha * P_{Z0} = (2\pi)^2 * P_1 \quad (34)$$

Then, from Eq.32, Eq.33, and Eq.34 we get Eq.35 and Eq.36.

$$\alpha^3 * R_{ZZ1} = (2\pi)^5 * R_d \quad (35)$$

$$\alpha^4 * R_{ZZ0} = (2\pi)^6 * R_d \quad (36)$$

Upon this, Eq.9 identifies the radius  $R_3$  of the index - thrusts of Saturn, Uranus, and Neptune; Eq.35 identifies the radius  $R_{ZZ1}$  of the index-thrust of Pluto; and Eq.36 identifies the radius  $R_{ZZ0}$  of the index-thrusts of both Earth and Mars. However, I found that the radius of Jupiter's index-thrust  $R_3$ - equals

$R_3$  times the fourth root of  $2\pi$  ( $=1.5832$ ); i.e., it equals about 10 times of its  $R_{M3}$ . If Jupiter's data is correct, it seems that there might exist some intervals between  $P_3$  and  $P_{Z3}$ , having the factors:  $(2\pi)^{2/3}$ ,  $(2\pi)^{1/2}$ ,  $(2\pi)^{1/3}$ , and  $(2\pi)^{1/4}$ . Thus, the equation of Jupiter's index thrust is,

$$\alpha^*R_{3-} = (2\pi)^{5/4} * R_d \quad (37)$$

Using Eq.36,  $R_{ZZ0}$  for Earth equals 517km; then if we put in Eq.30 the velocity of  $R_{ZZ0}$  equal to  $V_d$  of the Earth (29.78 km/second), the velocity of the Moon's orbiting thrust that its mean radius equals 384,400 km would be equal to 1.06 km/second. Besides, using Eq.30,  $V_d$  for Jupiter (at  $R_d$  equals  $778.56*10^6$  km), in relation to  $V_d$  of the Earth, equals 13.054 km/second. According to Eq.37, it is also the velocity of the index thrust of Jupiter that has a mean radius  $R_{3-}$  equals 739,003km. Then, using Eq.30, the velocity of Callisto's thrust that has a mean radius equals 1830,000 km is about 8.29 km/second. For Mars, using Eq.36, its  $R_{ZZ0}$  is equal to 68.49km and according to NASA's planetary fact sheets [16b] its  $V_d=24.13$  km/second, then, using Eq.30, the velocity of the thrust of Phobos is 2.06 km/second and the velocity of the thrust of Deimos is 1.30 km/second. Furthermore, I expect that, as  $V_d$  of a planet (or an orb) changes during its orbiting motion, due to the change in the load vectors between the perihelion and the aphelion of its  $P_d$ , the velocity of any point

of the index-thrust of the planet would also change. Hence, the velocities of thrusts of a planet's system (a loaded-orb) will also change during its  $T_d$ . Thus, a natural satellite will have different orbiting time for each cycle of it during the  $T_d$  of its home planet.

Based upon what have been said, the steering motions in  $C_{S_{24+4}}$ , are the motions of the main  $X$ -thrusts of each contour level of both the harmonization and the steering mechanisms of a system-carrier-orb that are namely:  $P_o$ ,  $P_1$ ,  $P_2$ ,  $P_3$ ,  $P_d$ ,  $P_E$ ,  $P_F$ , and  $P_{Zc}$ . As thrusts, they represent seven motions plus the four hidden motions of  $P_{Zc}$ , hence, the steering motions for each loaded or unloaded orb, e.g., a planet, are 11 at most; we observe only two of them.

Moreover, for the system-carrier orbs, we can assume that their  $M_b$  equals 100 km, i.e., it equals  $10^{-4}$  of  $M_b$  of  $C_{S_{24+4}}$ ; I use  $10^{-4}$  as a reduction interval between  $M_b$  of the mother system and  $M_b$  of its subsystems, since the mother system is of the fourth order. Accordingly, Eq.6 could be used to get the imaginary architectonic frequency of any radius in the systems of orbs (e.g., planets' systems), as they take place within the jurisdiction of  $C_{S_{24+4}}$ .

Now, according to the *Newtonian* law of gravitation, the escape velocities from planets in our solar system have been identified [14, 15]. Using Eq.30, we can identify, for each planet, to which thrust of its sys-

tem the escape velocity belongs. I found that the escape velocity is related to a thrust in the planets' systems that the imaginary architectonic frequency  $\omega_d$  of its mean radius is  $1/100$  of the musical note  $La_2 = 110c/T_b$  or its first harmonic  $La_1 = 55c/T_b$ , as  $M_b = 100$  km. The former is  $\omega_d$  for the radius 3,514 km, and the latter is  $\omega_d$  for the radius 219.6 km.

For Earth, using Eq.30, in relation to its index thrust, the velocity of that  $La$ -110-thrust is 11.42 km/second. For Mars, the velocity of the thrust that its radius equals  $2\pi$  the radius of  $La$ -55-thrust, at 1,379 km, is equal to 5.37 km/second. For Jupiter, the velocity of the thrust that its radius equals  $(2\pi)^{5/4}$  of  $La$ -110-thrust, at 34,956 km, is about 60 km/second. For Saturn, the velocity of the thrust that its radius equal  $2\pi$  of  $La$ -110-thrust, at 22,079 km, is about 39.78 km/second. For Uranus and Neptune, if their data is correct, the velocity of the thrust that its radius equals  $(2\pi)^{2/3}$  of  $La$ -110-thrust, at 11,819 km, is about 22 and 24 km/second, respectively; however, if they are similar to the case of Saturn, their escape velocities at  $2\pi$  of  $La$ -110-thrust will be 16.11 and 17.61 km/second, respectively. For Pluto, the velocity of the thrust that its radius equals  $(2\pi)^{1/2}$  of  $La$ -55-thrust, at 559 km, is 0.91 km/second.

On rings of planets, likewise, we can presume that each system-carrier-orb, in  $Cs_{24+4}$  or any  $Cs$ , as a

sub-system (e.g. a planet), has its protecting rings that form its equatorial disk, and similarly the corresponding array of orbs. For, I shall presume that, in our solar system as  $C_{S_{24+4}}$ , the planets' rings have the following order from the planets surface: 4 rings correspond to  $B_{S_4}$  of  $C_{S_{24+4}}$ , one ring gap, 12 rings correspond to  $B_{S_3S}$  of  $C_{S_{24+4}}$ , and 3 rings as a cover for the planet's system. The cover of each is one level below the cover of  $C_{S_{24+4}}$ . In total, they are 20 rings or 20 diatones. Accordingly, with reference to Eq.6 and Eq.4, the radius of the system-carrier-orb's perimeter of the same is about  $((2^{1/12})^{20})^4 * R_W = (101.5936673 * R_W)$ . In our solar system, this number was assumed by scholars as 100 times the planet's equatorial radius. Upon this, I found that the observed rings of some planets take place within the limits of HMT of the combined ring of the planet's system. With reference to Eq.6 and Eq.4, the radius of the perihelion  $R_{PH}$  (lower-limit) of HMT of the combined ring for any planet is  $(101.5936673 * 3^{-4} * R_W)$  that equals  $(1.254242806 * R_W)$ ; or as assumed it is  $(100 * 3^{-4} * R_W)$  that equals  $(1.234567901 * R_W)$ ; where  $R_W$  in the latter is the planet's equatorial radius. Perhaps, the difference might be in value of the factor  $Y$ , see section-3.

In addition, some observed rings start close to the neutral path of the planet's system, similar to the asteroid belt of our solar system ( $C_{S_{24+4}}$ ), i.e., at the

thrust that its mean radius  $R_{NP}$  equals to square the velocity of that radius,  $R_{NP}=V_{NP}^2$ . Thus,

$$R_i * V_d^2 = R_{NP}^2 \quad (38)$$

Where,  $V_d$  is the orbiting velocity of the planet in second, and  $R_i$  is the radius of the index thrust of the planet ( $R_3, R_{3-}, R_{ZZ1}$  or  $R_{ZZ0}$ ) in 100 km that =  $M_b$  of the planet; and  $R_{NP}$  will be in 100 km. Using Eq.38,  $R_{NP}$  of Jupiter equals 1,122.18 hundred-km (112,218 km); however, its  $R_{PH}$  equals 88,148km.  $R_{NP}$  for Saturn is 59,110km, but its  $R_{PH}$  equals 74,404km.  $R_{NP}$  for Uranus is 23,937 and its  $R_{PH}$  equals 31,554km.  $R_{NP}$  for Neptune is 26,166 and its  $R_{PH}$  equals 30,572km.

Furthermore, since natural satellites are orbs in the sleeping mood, most likely they do not spin. However, based on reviewing the data of satellites in our solar system, due to that, they have different working and orbiting radii for the same planet, as the case of Jupiter [16c], I think they are orbiting the nuclei (planets) of their systems based on a mutual zero-load-relation. For this, one can imagine that a natural satellite is a nucleus of a  $B_s$ , where its own equatorial perimeter  $P_{WS}$  is the module  $M_b$  of that  $B_s$ . Besides, the thrust  $X$  of that  $B_s$  has an imaginary architectonic frequency  $\omega_{La}$  that always being the note  $La$  of any musical octave, e.g.,  $La_2\#110$ ,  $La_3\#220$ ,  $La_4\#440$ , or  $La_5\#880$  cycles/s, or above. If

we imagine that, a natural satellite carries its home planet that is located on  $P_Z$  of the natural satellite's system, the load of the orbiting moment that is represented in travel distance by that  $P_Z$  would be equal to the load of the orbiting thrust of the natural satellite. Therefore, a natural satellite does not carry any load and accordingly it becomes in the sleeping mood. Then, the load vector  $R_Z$  of the satellite's system equals to the mean orbiting radius of the satellite. Thus,

$$R_{WS} * \omega_{La} = R_{dS} \quad (39)$$

Where,  $R_{WS}$  is the mean equatorial radius of the satellite,  $R_{dS}$  is its mean orbiting radius, and  $\omega_{La}$  is the architectonic frequency of a  $La$  note, or close to it. For Earth, the corresponding frequency of  $X$  of the moon's system is  $La_3\#220 c/T_b$ . For Jupiter,  $\omega_{La}$  for Callisto, Ganymede, Europa, and Io are about  $La_4\#440$ ,  $La_3\#220$ ,  $La_3\#220$ , and  $La_2\#110 c/T_b$ , respectively. The rest of natural satellites in our solar system have similar cases, even, those that are only  $Cs_{24+4}'$ 's derbies like Phopos and Deimos of Mars. In most cases,  $\omega_{La}$  of  $X$  of the satellite is 100 times  $\omega_d$  of the  $La$ -thrust that is below  $\omega_d$  of the mean radius of the satellite's orbiting-thrust. For Earth,  $\omega_d$  of the Moon's orbiting-thrust<sup>v</sup> is  $3.55 c/T_b$ ; and  $1/100$  of

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<sup>v</sup> If  $R_{dS}$  is in millimeters, the mentioned architectonic frequencies will be  $355 c/T_b$ , and  $220 c/T_b$ ; where millimeter is  $10^{-4}$  decameter.

the frequency of the  $La$  note below it, is  $2.2 c/T_b$ ; where  $R_{ds}$  is in 100Km.

Based upon the postulation behind Eq.39, I shall attempt to answer the question: what escape velocity implies, form the architectonic point of view? I can say, it is the state at which, the travel length of any point on the equatorial thrusts  $P_Z$ ,  $X$  and  $P_M$  of a body standing on a planet's surface becomes perpetually equal to the travel length of  $2\pi$  the thrust that to which the escape velocity belongs, in  $T_d$  of this thrust. If a body reaches this state, I expect it will be able to propel itself up to the perimeter of zero-load of that thrust in order to become in the sleeping mood while orbiting the planet at that height (altitude). For Earth,  $2\pi$  the radius of its  $La$ -110-thrust is:  $(110^4 * 24) * 10^{-6} * 2\pi = 22,078$  km. Thus, I imagine that, any point on the thrusts  $P_Z$ ,  $X$  and  $P_M$  of a body that its  $R_Z=1.0$  meter, should perform 255, 1,605, and 10, 088 c/second, respectively, in order to be able to propel it self up to that zero-load orbiting thrust. This body has a radius equal to  $R_M$  (2.53 cm), and it will perform a spin equal to 1,605 c/second, while its three thrusts will keep performing the mentioned cycles until it reaches the sleeping mood level. We should take into our consideration that, in this postulated scenario, the motions of the contour thrusts of the body generate its spin and not the opposite. Perhaps, here lies the secret of the architectonic attributes of the eternal ethereal systems, as



*Plato* wrote it might also be related to the form of the soul. If one was activated, it propels metals.

The other possible scenario is that the body in the mentioned example will be as an orb in the ready state. As mentioned in the previous sections, each thrust represents an  $X$  of a separate system while it still part of the mother-system that to which it belongs and both the thrust  $X$  and its  $P_Z$  have the same angular velocity. Then, this body will be free to go to the  $P_Z$  of  $La-110$ -thrust. Similar to an orb in the ready state, the body will, imaginary, go to that  $P_Z$  in order to carry other system and return to a lower thrust that its load equals the load of the system that the body has carried. However, due to that, the body was sent to that  $P_Z$  in an improper time, it would find nothing to carry, and because the body in our example is not a real orb of a  $B_{S_1}$  or above.

Besides, as said earlier, if it was so, the orb of a  $B_s$  that was hosted within  $C_{S_{24+4}}$  via the capturing process of carrying will no longer be in the ready state as our Moon. Thus, the body will go for a long sleeping mood on that  $P_Z$ . Add to this, if this body was a real orb of a  $C_s$ , where it is located at, and move on its  $P_{dM}$ , and due to any external factor was sent in an improper time to the  $P_{Zc}$  (or  $P_X$ ) of its system, I expect it will do the same as mentioned above. If this process occurred again to send it in an improper time to the system's  $P_{ZZc}$  (or  $P_{ZX}$ ) or far

beyond it, and was lost for any reason, we can say as known the system has become in a state of ionization.

Furthermore, if we imagine that our solar system is as a  $Bs$  ( $BS_{24}$ ), that its  $P_{dM}$  and  $P_{ZX}$  are similar to  $X$  and  $P_Z$  of that  $Bs$ , then the rest of the 24 orbs of our solar system will be orbiting near to its  $P_{dM}$ ; i.e., the centers of their thrust-drivers are moving (sliding) on  $P_{dM}$ . They are in a ready state for capturing and carrying any  $Bs$ , passing near to  $P_{Zc}$ , adding a new planet to the system. The orbs in the ready state, therefore, represent the future of their complex systems because they bring new worlds into them. We can also imagine that a black hole as a very giant  $Cs$ ; its multi orbs in the ready state are capturing every passing by system. Using the notion of *Einstein*, if our solar system has been captured by a black hole, our world will be then the future of that black hole. However, if two  $Cs$  of similar order and size, e.g., two of  $CS_{24+4}$ , have approached each other, it is expected that they would capture each other based on a mutual zero-load relation; each will then stand on the  $P_{Zc}$  of the other system, may be similar to the case of binary stars.

Now, we come to the most famous question: why bodies fall down, towards the center of a planet. Based on what I have postulated so far from the architectonic point of view, and following the postula-

tion of *Plato*, all bodies in the cosmic enclosure, including all creatures, should have at least one contour level of the steering mechanism like a *Bs*: the main diverse-thrust *X*, the minor diverse-thrust  $P_M$  and the-same  $P_Z$  (or the-one). If a body stands on a planet's surface and cannot escape from it, it is neither in a ready state nor in a complete sleeping mood. Any body, according to its process of evolution and location, if it is not in a ready state, most likely, it will prefer to be in a complete sleeping mood similar to natural satellites. However, if this body is in a location that its contour-thrusts do not perform the needed cycles that enable it to propel itself up to the  $P_Z$  of *La*-110-thrust of its home planet, it will then prefer to go down one octave to  $P_Z$  of *La*-55-thrust at a radius equals 1,376km. Logically, it will prefer to go down to the thrust that its travel length is equal to the travel length of the three-contour-thrusts of its steering mechanism, per  $T_d$  of *X* (or  $1/(2\pi)$ ) of that thrust, in order to be in a sleeping mood.

Based on this postulation, an asteroid might not hit our earth if the travel length of its contour thrusts where more than the travel length of  $P_Z$  of the *La*-220-thrust of the Earth. It might orbit the Earth instead, similar to the case Deimos and Phopos of Mars. Since, *La*-110-thrust of Mars is about 117 km above its surface, Phopos runs on nearly the  $P_Z$  of *La*-110-thrust and Deimos runs on nearly  $P_{ZZ}$  of *La*-

55-thrust of Mars. With this end, I comeback to where I have started. As *Plato* and his Italian colleague said [2], all motions of the ethereal/material systems in the cosmic enclosure are the output of one law, which is the harmonic tuning between a diverse-orbit and the frame of reference of its home system. That is, conserving the musical-note of the outer orbit that he named it the-same or the-one, and that to which a diverse-orbit belongs or within which a diverse-orbit of other invited-system is being temporally hosted.

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<sup>vi</sup> The date of all hyperlinks, if not mentioned, is March 2004.

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